ADDRESSING THE HUMAN CAPITAL CRISIS

A Public Expenditure Review for Human Development Sectors in Iraq

WORLD BANK GROUP

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Acronyms and Abbreviations

ANC Antenatal Care

BOOST BOOST government expenditure database

CAGR compounded average growth rate

CFA Compulsory financing arrangements

CHW Community health workers

COSIT Central Organization for Statistics and Information Technology

COVID Coronavirus Disease

COVID-19 Coronavirus disease 2019

CRD Chronic Respiratory Disease

CSO Central Statistical Organization

CSO Civil Society Organization

CoMSec Council of Ministers General Secretariat

DB Defined Benefit

DB Defined Benefit

DC Defined Contribution

DC Defined Contribution

DEA data envelopment analysis

DHIS District Health Information Software

DNA Damage and Need Assessment

DNA Damage and Needs Assessment

DPT3 Combined diphtheria, pertussis and tetanus vaccine

ECE Early childhood education

EGMA Early Grade Mathematics Assessment

EGRA Early Grade Reading Assessment

EMIS Education management information system

EODP World Bank Emergency Operation for Development

FBSA Federal Board of Supreme Audit

GBD Global Burden of Disease

GCC Gulf Cooperation Council

GDP Gross Domestic Product

GNI Gross National Income

GOI Government of Iraq

HAQ Healthcare Access and Quality index

HCI Human Capital Index

HCI Human Capital Index

HCP Human Capital Project

HIS health information systems

HIV human immunodeficiency virus

HQSS Lancet Commission High Quality Health Systems

HRH human resources for health

IEA International Association for the Evaluation of Educational Achievement

IFC International Finance Corporation

IFMS Integrated Financial Management Information System

IHME Institute for Health Metrics and Evaluation

IHME Institute for Health Metrics and Evaluation

IHR International Health Regulations

IHSES Iraq Household Socio-Economic Survey

IHSES Iraq Household Socio-Economic Survey

ILO International Labor Organization

IMF International Monetary Fund

IMR Infant Mortality Rate

IQD Iraqi Dinar

ISIS Islamic State of Iraq and Syria

KRG Kurdistan Regional Government

KRI Kurdistan Region of Iraq

LAYS Learning-adjusted Years of Schooling

MDC Mobile Data Collection

MENA Middle East and North Africa

MICS Multiple Indicator Cluster Survey

MMR Maternal Mortality Ratio

MOE Ministry of Education

MOF Ministry of Finance

MOHE Ministry of Health and Environment

MOHESR Ministry of Higher Education and Scientific Research

MOLSA Ministry of Labor and Social Affairs

MOP Ministry of Planning

NBP National Board of Pensions

NCD Non-Communicable Disease

NHA National Health Accounts

OECD Organization for Economic Co-operation and Development

OOP Out- of- pocket expenditures

PASYG Pay-as-you-Go

PEFA Public Expenditure and Financial Accountability

PER Public Expenditures Review

PETS Public Expenditure Tracking Survey

PFM Public Financial Management

PFM Public Financial Management

PHC Primary healthcare centers

PIRLS Progress in International Reading Literacy Study

PISA Program for International Student Assessment

PPP Purchasing power parity

PPP Public-private partnerships

PRISTA Pension Reform Implementation Support Technical Assistance

PROST Pension Reform Options Simulations Toolkit

PSSD Private Social Security Department

REFAATO Reconstruction Fund for Areas Affected by Terrorist Operations

SDG Sustainable Development Goals

SDI Service Delivery Indicators

SESDI Support to Education and Skills Development in Iraq

SHI social health insurance

SOE State-Owned Enterprises

SPF State Pension Fund

SSS Social Security System

STEPS WHO STEPwise approach to Surveillance

SWIFT Survey of Well-being via Instant and Frequent Tracking

SWIFT Survey of Well-being via Instant and Frequent Tracking

TB tuberculosis

TBD To be determined

TFR total fertility rate

TIMSS Trends in International Mathematics and Science Study

UHC universal health coverage

UIS UNESCO Institute for Statistics

UMIC Upper Middle-Income Countries

UMIC Upper middle income

UN United Nations

UNCTAD United Nations Conference on Trade and Development

UNESCO United Nations Educational, Scientific and Cultural Organization

UNHCR United Nations High Commissioner for Refugees

UNICEF United Nations International Children's Emergency Fund

UNICEF United Nations International Children's Emergency Fund

USAID United States Agency for International Development

USD United States dollar

WDI World Bank World Development Indicators

WDI World Development Indicators

Acknowledgements

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Valuable comments and feedback were received from peer reviewers Heba ElGazzar (Practice Leader); Fadila Caillaud (Program Leader); Owen Smith (Senior Economist); and Jaime de Piniés (Senior Economist).

The team is also grateful for guidance and support from Saroj Kumar Jha (Mashreq Country Director), Nadir Mohammed (Equitable Growth, Finance and Institutions Regional Director for MENA), Keiko Miwa (Human Development Regional Director for MENA), Ramzi Neman (Iraq Head of Office), and Christos Kostopoulos (Mashreq Lead Country Economist)

The team is grateful for the close and productive cooperation of the Iraqi counterparts during the preparation of this report, particularly for the valuable technical comments, data and inputs provided by the Ministry of Health, Ministry of Education, Ministry of Higher Education and Scientific Research, Ministry of Planning and Ministry of Finance.

This study was co-financed by generous financial contributions from the Iraq Reform, Recovery, and Reconstruction Fund (I3RF) established in partnership with the government of Iraq and supported by the UK aid from the UK government, the German Federal Ministry for Economic Cooperation and Development (BMZ) through KfW, and the government of Canada through Global Affairs Canada.

The production of the report (Visual Design - Siwar Kraytem, and Editing - Hisham Awad) was conducted by THE COUNCIL©.

Executive Summary

Iraq is facing a human capital crisis.

Iraq, at present, is facing a human capital crisis, despite having been one of the early investors in health and education, in the MENA region, in the 70s and 80s.

The World Bank's Human Capital Index (HCI), shows that a child born in Iraq, today, will reach, on average, only 41 percent of her potential productivity when she grows up, compared to the 57- percent average of the MENA region. The HCI measures the amount of human capital that a child, born today, can expect to attain at the age of 18, thereby conveying the productivity of the next generation of a country's workforce—a key contributor to economic growth. Iraq's HCI is among the lowest in the world, and is lower than that of any country in the MENA region, with the exception of Yemen. In addition, large disparities in human capital outcomes persist between regions, and between urban and rural areas, to the disadvantage of northern governorates most affected by the conflicts. Women, Internally Displaced People (IDP), and families with very low incomes, are further disadvantaged.

Iraq's HCI, as captured by the index, reflects the country's modest gains in health outcomes, even as other key types of outcomes lag behind. While the under-5 mortality rate in Iraq has decreased over the past two decades, it remains twice as high as the average mortality rate of upper-middle- income countries (UMICs), and far higher than that of its MENA peers. The stunting rate among children in Iraq is much higher than that of other countries in the region with similar lower-income levels. In 2018, life expectancy at birth was just beginning to return to 70 years, its estimate in 2000. Iraqis benefited in an unequal fashion from such modest gains. Analysis shows that neonatal, infant, and under-five mortality rates have improved at a more significant rate for those in urban areas, and in higher wealth quintiles. Continued conflict in the northern governorates of the country has amplified displacement and the influx of refugees, and has negatively impacted life expectancy for both adults and children, which varies across governorates, with a seven-year difference between the better-off governorate (Kirkuk) and those worse-off (Al-Sulaimaniya and Duhouk). While not captured in the HCI, Iraq has poor health outcomes stemming from poor control of non-communicable diseases (NCD): for example, only 8 percent of hypertensive patients have controlled high blood pressure, and only 15 percent of diabetics are on treatment.

However, the low HCI is largely attributable to poor education outcomes. Based on current enrollment rates, an Iraqi child can expect to complete only 6.9 years of schooling—compared to 11.3 in MENA as a whole. Moreover, when taking into account the amount of learning that actually takes place, as measured by standardized tests, this child will achieve the equivalent of only 4 school years by age 18—versus a MENA average of 7.6 years. As a result, 2.9 of the 6.9 years spent in school by an average Iraqi child—40 percent—are "wasted" and fail to translate into productive skills when this child enters the workforce. These averages cover large inequalities as shown in the attendance ratios reported in household surveys, with substantial disparities driven by location and socioeconomic status for most levels of education. Only 0.3 percent of rural children attend preschool, a share one-tenth that of their urban peers. In lower secondary education, only 35 percent of children from poor families attend school (compared to 77 percent of children from the wealthiest families) and only 44 percent of rural children do the same (compared to 64 percent of urban children).

Iraq lacks a comprehensive, fair, equal, and inclusive social protection system to address shocks, and to protect people in old-age, disability, and as survivors (widows, orphans, etc.).[1] Despite its high cost and financial unsustainability, the current system suffers from low coverage, mostly favoring public sector employees (around 3 million people) over private sector employees (only around 200,000 people benefiting, while around 5 million people are not covered). The system also faces other economic and social challenges, producing considerable inequities not only between public- and private-sector employees, but also among different covered members.

1. The social protection system is composed of contributory and non-contributory (mostly social assistance) schemes. The PER chapter covers mainly the current contributory earnings-related big pension scheme (covering only public sector employees and which was, in theory, designed to be financially self-sustainable, but failed to be so in practice). The chapter also makes minor references to the small contributory earnings-related scheme that covers private sector employees, as well as all the pre-war contributory earnings-related schemes and other pension benefits (benefits for war victims, etc.) currently paid for by the general budget.

The current design of the pension system also produces perverse incentives (for instance, to retire too early) as well as obstacles for private sector development (favoring public sector work). The current system does not provide adequate and predictable pensions. All these issues are important challenges for proper human capital formation in Iraq.

The COVID-19 pandemic is expected to further negatively impact human capital status of the country. As of mid-May 2021, Iraq has recorded about 1.2 million cases and 16,000 deaths. Iraq remains susceptible to a high risk of morbidity and mortality due to COVID-19, not only as a result of its direct effects but also through the indirect effects stemming from the virus burden imposed on the country's system. This risk is attributable to a high and growing burden of non-communicable diseases (NCDs), a diverse range of vulnerable and at-risk populations due to poverty, inequality and displacement, and a weak and inequitable health system. Furthermore, the pandemic is expected to lead to additional losses in learning among Iraqi children and youth, some of whom may drop out of school and never return. Simulations carried out by the World Bank suggest that up to 0.9 learning-adjusted years of schooling (LAYS) may be lost, on average, as a result of school closures, with the highest impact to be felt in rural areas and on the poorest households.

While triggered by successive conflicts, the crisis is sustained by inadequate, inefficient, and unequal spending on social sectors.

Partly the result of successive and violent conflicts, Iraq's low performance is also due to the country's underinvestment in health and education. Repeated conflicts have resulted in a humanitarian crisis, with the internal displacement of 3.2 million Iraqis and destruction of health and education infrastructure. Spending on health and education is low and falling. Iraq spends the lowest share of public budget on these two sectors, compared to MENA and UMICs (Figure 1 and Figure 2). In 2019, only about 10 percent and 4 percent of the government budget were allocated to education and health, respectively. The public expenditure on health remained stagnant, averaging 1.6 percent of GDP since 2017, and lags that for MENA and UMICs, at 3.3 percent of GDP each (2017).

Figure 1. **Education expenditures compared to peers**

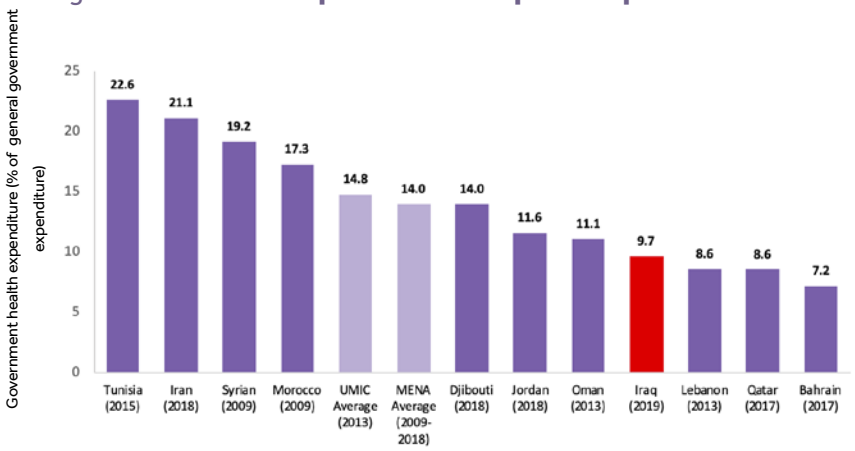
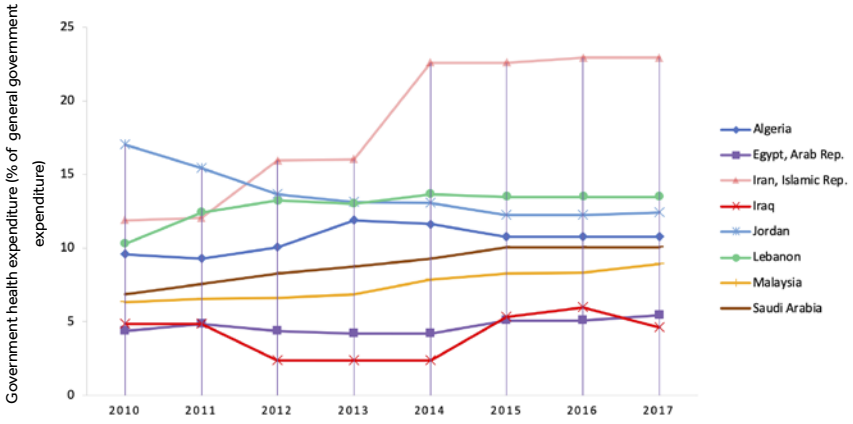


Figure 2. **Health expenditures compared to peers**



SOURCE/ WDI; and WB staff calculations.

In addition, spending in health and education is characterized by both allocative and technical inefficiencies. A comparison of key health outcomes such as life expectancy, infant mortality, and diabetes prevalence indicates that when accounting for GNI per capita and health spending levels, Iraq often performs under the international average. These results imply that the country's public spending on health might be less effective and/or inefficient compared to other countries. A cross-cutting concern is allocative inefficiency: recent National Health Accounts data from 2018 highlights that 37 percent of all health spending takes place at hospitals, as opposed to 16 percent for preventive care and 13 percent for primary care at outpatient facilities, highlighting a key allocative inefficiency across levels of care. Similarly, in education, level of spending per student is substantially higher in the university sector than in pre-university education. For 2017, Iraq's expenditure per student in higher education was approximately 3.5 times higher than in pre-university education compared to a rate ranging from around 1.3 (Oman) to 3.0 (Lebanon) in MENA. In addition, Iraq exhibits relatively low technical efficiency in translating this spending into education sector outcomes. When compared with other MENA countries, Iraq's per-student spending, coupled with its low outcome in learning indicators, put the country substantially below the curve of "expected" education sector performance.

Inefficiency in spending is partly driven by the large wage bill that crowds out investment and other inputs critical to quality service-delivery. Public spending on health and education is heavily dominated by wage bill expenditure which represented, in 2019, 76 percent of total government budget in health and 93 percent in education. In addition, the increase of this share in the health sector demonstrates the significant increase in recruitment of administrative and non-clinical staff, as well as a decrease in the medicines and equipment budgets. Investment budget in education has been under-resourced for a long time. In light of the destruction and deterioration of education infrastructure resulting from years of conflict and violence, the need for a scaling-up of public investment in education is critical for effective service delivery.

Governance and Public Financial Management challenges also are hampering effectiveness and efficiency of social spending. The budget-approval process is hampered by the fragile nature of Iraq's national politics, with no budget being approved for two fiscal years in the last decade (2014 and 2020) and low budget-execution rate. The investment budget in the education sector is substantially under-executed and has, since 2015, yet to reach 40 percent. The reasons behind low execution rates of the investment budget, which are not limited to the education sector, include: bottlenecks in public procurement, fragmented and shifting responsibilities among public sector entities and levels of government, lack of adequate capacity to implement capital-investment projects, and well-documented issues with corruption. Moreover, the rushed decentralization process placed a greater burden of sector financing and ensuring service delivery on the governorate authorities that many were equipped to receive.

In addition to the gaps in effectiveness and efficiency, public spending tends to perpetuate unequal access to basic health and education services. The variation of per-capita health budget across governorates, compared to the national overall figure, demonstrates that Nineveh, Basrah, and Baghdad have the lowest per-capita health budgets, whereas Al-Najaf, Karbala, and Al-Quadisiya have the highest. A similar trend is observed in education: unit costs vary widely within Iraq—from 622 thousand Iraqi dinars (IQD) per student in Nineveh to 1,036 thousand IQD in Diala—for 2018. Per-student spending levels do not correlate closely with the level of multidimensional poverty observed in the governorates. High spending levels are observed in both rich and poor governorates, as are low spending levels. Together with the benefit incidence analysis of enrollment undertaken in this report, one can conclude that Iraq's public education spending is progressive neither in ensuring access to education for the poorest households nor in targeting scarce public resources toward the neediest governorates.

Another dimension of inequality is reflected in the high level of household out-of-pocket health expenditures. Due to the lack of health insurance or other prepaid schemes, as well as a low share of health spending in Iraq is financed through the government, out-of-pocket spending (OOP) remains high. Only 42 percent of total health spending in Iraq is financed through government spending—the lowest amongst comparator countries except for Egypt—resulting in poor financial coverage. As such, patients incur significant amounts of OOP spending, particularly at the private sector. Out-of-pocket spending has more than doubled between 2012 and 2017, going from 89,500 IQD to 194,233 IQD per individual per year. The largest driver of OOP spending has been on pharmaceuticals, with 36 percent in 2017, while the main increase has come from private-hospital cost. In 2017, about a third of the population incurred catastrophic health expenditure (exceeding 10

percent of non-food expenditure) and 34 percent of the poorest households experienced impoverishing health expenditure, presenting significant equity concerns.

Iraq needs to create fiscal space to be able to invest more in health and education.

Iraq's worrying human capital outcomes follow decades of political instability and oil price volatility that have taken a toll on the Iraqi economy. During the tumultuous past four decades, Iraq's oil wealth has helped to sustain a fragile political economy. After the Saddam regime period, Iraq's social contract has involved a complex patronage network whereby oil rents are distributed among select groups. Instead of being used to build infrastructure or improve the quality of human capital services, oil revenues have been used to expand public sector employment and transfers.[2] The use of oil income to maintain networks of power weakens the drive to pursue growth-enhancing reforms in sectors such as health and education.

The increase in Iraq's standard of living has been driven mainly by depleting its oil reserves while so little has been invested in human capital formation. Iraq's wealth grew by 133 percent in the 2005–2014 period, one of the highest rates among resource-rich countries and was driven mainly by the depletion of its oil reserves. [3] But even with this important contribution of oil resources, per-capita incomes in Iraq have not kept pace with other upper-middle income countries. Over the period 2005–2019, per-capita GDP grew 1.7 percentage points slower than other upper-middle income countries. This is the case since Iraq has not used its significant oil reserves for human capital development, which is imperative for sustainable economic growth. For decades, countries across the world have invested in human capital as a driver for economic growth. Today, human capital constitutes the largest share of total wealth worldwide (64 percent). In comparison, Iraq's share of human capital as a percentage of total wealth is only 15 percent, the lowest in the MENA region.

In the future, however, Iraq will not be able to rely on oil to maintain its standard of living. Despite having the fifth-largest proven oil reserves, it is estimated that oil reserves will last 80-85 more years. In case global oil demand slows down due to technological improvements and/or climate change considerations, the shift to an economy that doesn't rely on oil may happen much faster.

Without oil, Iraq in many ways more closely resembles a low-income fragile country. The country has low levels of human and physical capital and deteriorating business conditions. Investment in 2018 was only 5.2 percent of GDP compared to 21.5 percent in MENA and 29.8 percent in upper-middle income countries. More concerning, non-oil investment represented only 2 percent of GDP in 2019. Similarly, Iraq's human capital outcomes, such as quality-adjusted years of schooling, are much lower than other upper middle-income countries.

To maintain its upper-middle income status, Iraq needs to diversify its economy away from oil and improve the quality of its physical and human capital. However, in the current global environment, it will be difficult for Iraq to mobilize the necessary resources to achieve this. The onset of the COVID-19 pandemic and the fall in global commodity prices will drive the budget to a deficit of almost 17 percent[4] of GDP in 2020. Even if oil prices recover, Iraq will still need further fiscal reforms to close the fiscal balance (figure 3). These reforms will have to tackle items like public wages and salaries, pensions, and other related transfers. Reforms will also have to re-examine the effectiveness of existing spending on human capital and offer ways to re-allocate the existing envelopes at least in the short to medium term.

To create fiscal space, the GoI would have to diversify its revenue sources away from oil to domestic sources and improve the efficiency and prioritization of its spending. Significant non-oil revenue could be generated by improving compliance and monitoring of current taxes, and by implementing other non-oil taxes, such as a VAT. Such measures should be complemented by others to increase the efficiency of spending, improve the pension system, and moderate increases in recurrent spending.

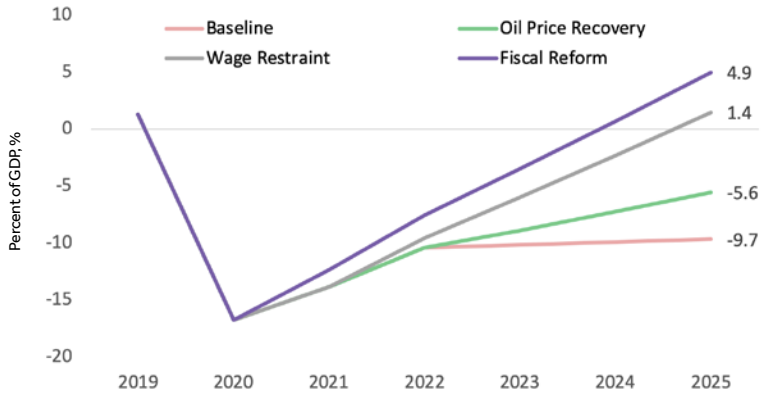
A key reform would have to address the pension scheme, which remains expensive, inequitable, and financially unsustainable. Total pension spending increased from 9.3 trillion IQD in 2017 to 10.2 trillion IQD in

2. World Bank Group, *Breaking out of Fragility: A Country Economic Memorandum for Diversification and Growth in Iraq (*Washington, D.C.: World Bank Group, 2020).
3. Ibid.
4. The fiscal scenarios were built on data obtained by December 2020 and does not account for the recent decision on the Iraqi Dinar devaluation. According to the more recent World Bank publication the Iraq Economic Monitor Spring 2021, the fiscal deficit for 2020 was 6.5 percent of GDP on cash basis. If wage and other arrears/commitments are added, this deficit would increase to to 13.9 percent of GDP. The 17 percent of GDP recorded in this report does not account for the effect of the devaluation on budget revenues..

2020. The percentage of pension spending paid by the general budget represented 78 percent of the total in 2017, and is today estimated at around 62 percent (the difference is paid using the pension fund). Pension benefits paid by the general budget are theoretically supposed to be phasing out, since such benefits are mostly paid to those who retired before 2006 (or to their dependents). In practice, there are additional benefits (for war victims and others) that are also paid for by the general budget. When looking only at the contributory system, if it is not soon reformed, the deficit could occur as early as 2022, and such contributory scheme, far from being self-financed, would also need to depend largely on the general budget, crowding out even further resources for other well-deserving programs.

Together, the proposed reform measures could generate enough savings to create fiscal space in Iraq. Simulations run by this report (figure 3) reveal that, assuming a gradual recovery in oil prices, the deficit would still be around 5.6 percent of GDP in 2025. A restraint on the share of public wages in the economy back to their 2019 ratio would generate enough savings to balance the budget by 2025. Further reforms to reduce expenditures on pensions and generate more revenue from non-oil sources would result in a fiscal surplus of 4.9 percent of GDP in 2025. These are all measures that will have to be taken in the short to medium term so as to generate the needed fiscal space to invest in human capital formation and reap the returns on growth and welfare.

Figure 3. **Fiscal scenarios**



SOURCES / World Bank and author's calculations

Meanwhile, Iraq could engage immediate actions to achieve better human capital outcomes.

Additional financial resources will not have an impact on Human Capital formation if not accompanied or preceded by key policy reforms. The analysis conducted under this Public Expenditure Review (PER) identified gaps in the effectiveness, equity, and efficiency of social spending. Increasing public resources allocated to health and education, without addressing those gaps, would fail to improve access to quality services for all Iraqis and ultimately the country's human capital outcomes. This PER proposes key policy reforms, organized around three main pillars, that would help Iraq in investing more and better in its human capital.

The first pillar aims at improving the adequacy of public spending and access to quality services. While this report calls for creating fiscal space for additional resources to health and education, such resources, if available, should be allocated to critical priority areas. In health, the main priority would be to reorganize service delivery with a view to strengthen community- and primary-level care services, strengthen and regulate the private sector, and improve the quality of the health workforce. In education, additional resources should go primarily to investment and non-salary expenditures aiming to improve quality of education services, and target areas and groups in greatest need.

A key priority is to address the COVID-19 pandemic and strengthen the country's preparedness for future pandemics. Iraq is one of the countries most significantly impacted by the COVID-19 pandemic in the MENA region. In the short term, the focus should be on building capacity for strengthening clinical care, preventing transmission, improving communication, accelerating case detection, and ensuring the safety of the health workforce. However, longer-term priorities, such as the development of an effective surveillance strategy and service delivery redesign to ensure service continuity during COVID-19, should be designed and implemented

as soon as possible. In education, a specific program should be adopted to address the learning losses due to school closures and prepare a safe return to school.

The objective of the second pillar is to enhance equity in public spending. A key reform would be to scale up well-targeted financial protection schemes in order to ensure healthcare affordability to all Iraqis. While a new social health insurance scheme is being debated, there are significant questions regarding its feasibility and implementation modalities, as well as the feasibility of revenue collection specifically through this law. This report recommends conducting additional work emphasizing scope, targeting, and sustainability for financial protection schemes, as well as defining a minimum benefits package, ensuring its effective delivery, and assessing its financial sustainability. It is also recommended to leverage sustainable public-private partnerships to rebuild health system capacity in areas impacted by the conflict.

In education, equity should be promoted through providing additional support to disadvantaged groups and areas, especially in pre-primary and secondary education. Infrastructure shortages continue to play an important role in preventing all children from enrolling in school, especially in rural areas and in governorates affected by conflict. Ensuring that recent decentralization reforms do not leave children in high-poverty governorates at a financial disadvantage due to lower levels of spending should be a central topic of discussion between the authorities in Baghdad and those in the respective governorates.

Another equity measure would be to revamp (and revise) the draft pension law in Iraq, which would now entail reversing some of the amendments introduced in 2019. Absence of reforms would entail a very large fiscal burden or a sharp cut in benefits in a few years. In addition to the existing challenges of the pension system, the current economic downturn sparked by the Covid-19 pandemic and its expected deleterious effect on labor market outcomes are likely to lead to a further deterioration of the pension system. Therefore, the introduction of short-term emergency measures to address the COVID-19 crisis, in combination with the adoption of appropriate long-term measures, will be critical in making the pension system sustainable as well as more equitable.

The third pillar aims at improving the efficiency of public spending through a better allocation of available resources within the sectors. In the health sector, priority should be given to effective primary care as international evidence shows its critical role in improving the effectiveness and efficiency of public health spending. It is also essential to implement a referral system such that those seeking care at hospitals for primary care services in the primary health package would have to pay a bypass fee, in order to ensure hospitals are decongested and can focus on secondary or tertiary care. In education, it is recommended to adjust public spending across levels of education in favor of pre-university education relative to university education, moving from the current 3.6 ratio to 2.5 to align with international benchmarks. This could be achieved by diversifying sources of funding to universities to make them less reliant on the government budget.

The third pillar also aims at achieving better outcomes with the existing resources. Improving the efficiency of the procurement of drugs and medical supplies as well as other key inputs is essential. Significant cost savings and improved outcomes could be achieved by developing cost-effective essential medicines list, prioritizing generics, centralizing procurement through capacitating KIMADIA, and boosting local pharmaceutical production. Improving the efficiency of human resources in the health sector is also a crucial prerequisite to effective service delivery. Given the recent hires that included mostly non-health workers, it is also recommended to conduct a functional review of the wage bill and the human resources for health capacity, with a view to rationalize the distribution of the health workforce. In education, it is recommended to adopt new school infrastructure and teacher allocation policies to bring greater transparency, equity, and efficiency to resource allocation.

Advancing the overall PFM reform agenda will also benefit social sectors. The many long-running challenges and false-starts of Iraq's PFM reform continue to hamper effective service delivery in health and education. The reform agenda covering the entirety of Iraq's public sector requires addressing the ongoing challenges in public procurement, budget credibility and reliability, external audit, transparency, and budget monitoring and reporting, among other areas. The education sector is particularly vulnerable to the threats of corruption and leakage that prevent the allocated budget resources from reaching the geographic areas and populations most in need, particularly in the sphere of investment budget.

Strengthening data and information systems will be key to maximizing efficiency and improving public

financial management. Availability, accessibility, and use of data are essential for planning, monitoring, and evaluating of the resources allocated to social sectors. In the health sector, despite the availability of routine data from the public sector, there is almost no data regarding the financing or delivery of services from the private sector. As a first step, MOHE should start collecting a set of standardized indicators from the private sector, focusing on the priority metrics of access, utilization, and financing, particularly for NCDs, to allow for continuity of care. Strengthened information systems will also enable improved and routine standard efficiency analyses, such as focusing on standardized unit costs per physician and per procedure, as well as allow for improved financial management. Similarly, without reliable information on the quality of education across Iraq's schools, it is difficult to reach conclusions about the "value for money" achieved in education. More robust measurement of student learning outcomes and their determinants is needed to assess why certain governorates appear to achieve better outcomes with the same amount of money and vice versa.

Rationalizing decentralization arrangements can assist in improving human capital outcomes. This would imply, first, the clarification of the roles and responsibilities among different ministries and levels of government charged with financing health and education in Iraq. Consolidating responsibility for capital investment planning and execution within either the central or governorate administrations—while ensuring adequate authority and implementation capacity—is an important next step for streamlining the financing of health and education. Second, there is a need to build the capacity of health and education authorities at all levels to implement the various sector policies in a coherent manner, which will be crucial for improving sector efficiency.

Beyond decentralization, a whole-of-government approach would be critical to improve human capital outcomes. The COVID-19 crisis has demonstrated the interdependence of multiple sectors. Proper hygiene contributes to limiting diffusion of the virus. In turn, reduced transmission is often a pre-condition to re-open schools. Digital technologies enable continuity of educational and other services essential to human capital accumulation, but many poor and marginalized communities lack access to digital tools. These links, which go beyond the COVID 19 context, point to the need for ambitious infrastructure and other investments to expand access to water, sanitation, and digitalization as key enablers of human-capital accumulation. With the limited fiscal space Iraq has today, protecting core spending for human capital is a challenge for policy makers. Yet, by making these investments with a view to the future, Iraq can emerge from the current crises prepared to do more than restore the human capital that has been lost.

Key proposed reforms

Reform Pillars and Objectives	Short-Term Actions (1-2 years)	Medium-Term Actions (3-5 years)
Adequacy of education spending **Objective:** Increase the share of education in government budget through enhancing investment and non-salary spending.	• Set a medium-term target for increasing the share of education sector spending in total budget expenditure to be included in the National Plan and Education Strategy. • Set a medium-term target for increasing the share of non-salary spending in total education sector government expenditure. • Commit to prioritizing investments in education as part of the COVID-19 recovery phase by adopting an investment program to address the impact of COVID-19 on education.	• Prioritize investments in education by gradually increasing its share of total budget expenditure to reach the target. • Expand the share of non-salary spending in total education-sector government expenditure (recurrent and investment budgets) to reach the target, in particular by expanding capital investment to close the existing infrastructure gap and finance improvements in the learning environment.
Equity of education spending **Objective:** Improve education outcomes of children from less well-off households and areas.	• Set medium-term targets for increasing enrollment and completion rates in pre-primary and secondary education. • Analyze and report public spending per student by level of education. • Commit to targeting additional public resources to areas and groups with greatest need by adopting new school infrastructure and teacher allocation policies that improve equity between regions and schools	• Expand access to pre-primary and secondary education to reach the targets with special focus on rural areas and children from lower income households • Gradually increase the amount of public funding per student in pre-university education available to governorates with high poverty and low enrollment rates.
Efficiency of education spending **Objective:** Enhance value-for-money in education by increasing sector performance within the available resource constraints.	• Set a medium-term target for reducing the ratio between public spending per student in higher education and pre-university education. • Set a medium-term target for budget execution rates in non-salary parts of the education budget. • Develop a framework for systematic assessment of student learning to better measure education quality and efficiency and collect initial data to inform development of the framework in line with international good practices (such as EGRA or SDI). • Adopt new school infrastructure and teacher allocation policies to bring greater transparency, equity, and efficiency to resource allocation.	• Reallocate public spending across levels of education, increasing spending per student in pre-university education relative to higher education to reach the target (e.g., by diversifying sources of funding to universities to make them less reliant on the government budget). • Increase budget execution rates in non-salary parts of the education budget to achieve the target, with particular focus on strengthening the capacities of the MOE and governorate directorates of education to implement the investment budget more effectively • Participate in at least one international system of student learning assessment (e.g., PISA, TIMSS, PIRLS) by 2025 and use the results to inform decisions around education resource allocations.
Institutional and PFM challenges in education **Objective:** Improve the effectiveness of education sector management through streamlined institutional arrangements more conducive to achieving results.	• Clarify the roles and responsibilities among public sector entities and levels of government charged with financing education in Iraq. • Assess the capacity-building needs of the MOE and governorate directorates of education to implement education sector policies. • Develop a plan for establishing an Open Data Portal for the education sector to increase transparency and accountability around the use of financial and non-financial resources and support evidence-based decision making.	• Strengthen the capacities of the MOE and governorate directorates of education, with a particular focus on enabling more effective implementation of the investment budget (e.g., project selection and evaluation). • Launch an Open Data Portal for the education sector, containing data on spending per student at each level of education, and education outcomes at the governorate, district, and school levels, along with other relevant information. • Advance the overall PFM reform agenda in Iraq, which will also benefit the education sector (e.g., moving towards performance budgeting, clarifying intergovernmental fiscal relations, etc.).

Health sector

Reform Pillars and Objectives	Short- to medium-Term Actions (1-2 years)	Long-Term Actions (3-5 years)
Adequacy of health spending	• Set a medium-term target for increasing the share of health sector spending in total budget expenditure through the prioritization of health in the government budget, particularly targeted towards improved investments into priority areas. • Set a medium-term target for increasing the share of non-salary spending in total health sector government expenditure.	• Prioritize investments in health by gradually increasing its share of total budget expenditure to reach the target, contingent upon fiscal space. • Expand the share of non-salary spending in total health sector government expenditure (recurrent and investment budgets) to reach the target, ensuring sufficient physical resource and service delivery capacity.
Improving access to quality services	• Improve the quality of the health workforce through standardized provider assessments and customized trainings, particularly for non-communicable disease management.	• Perform service-delivery reorganization to strengthen community- and primary-level, particularly for internally displaced persons and other vulnerable groups, including redesigning primary care through empanelment and family medicine reforms. • Accreditation, contracting and harmonized incentives (through provider payment) for regulating and strengthening private sector primary care delivery. Regulate and strengthen private sector primary care delivery using accreditation, contracting and harmonized incentives (through provider payment).
Increasing equity	• Conduct additional work emphasizing scope, targeting, and sustainability for financial protection schemes. • Define a minimum benefits package and ensure its effective delivery & assess its financial sustainability	• Scale up well-targeted financial protection schemes. • Leverage sustainable public-private partnerships to rebuild health system capacity in areas impacted by the conflict
Maximizing efficiency	• Improve data systems and accountability to diagnose/identify technical efficiency gains for procurement and other clinical inputs. • Conduct a functional review of the wage bill and human resources for health capacity and assess and rationalize governance of human resources for health.	• Rethink decentralization within the context of broader public sector reform. • Improve the flexibility of funds and strengthen public financial management within the context of broader governance challenges. • Emphasize primary care service delivery and implement a referral system. • Institutionalization of health benefits package updates and efficiency analyses.
Ensuring pandemic preparedness	• Ensure essential service continuity and surge capacity to respond to COVID-19. • Build capacity for effective clinical care for COVID-19 case management. • Establish mechanisms to ensure safety of the health workforce.	• Strengthening event-based surveillance systems and the public health capacity of the government. • Develop an effective communication strategy.

Pensions and social protection sector

Reform Pillars and Objectives	Short- to medium-Term Actions (1-2 years)	Long-Term Actions (3-5 years)
Fiscal/financial: Increase financial sustainability and projected fiscal space. **Economic:** Increase fairness (equity), and labor market flexibility.	• Review the integrated Social Insurance Law to ensure that it: (i) provides a transparent financing mechanism ensuring sustainability and affordability; (ii) improves equity and provides incentives to work in private sector and save; (iii) increases coverage and ensures that pensions are regularly indexed to inflation; (iv) ensures that all good governance principles of social security are well considered.	• Implement the integrated Social Insurance Law. • Conduct education and awareness campaigns on financial literacy, pensions, and population ageing.
Social: Increase coverage, and adequacy of pension benefits.	• Put in place a transparent financing mechanism for those pension benefits that are directly paid by the general budget.	• Perform service-delivery reorganization to strengthen community- and primary-level, particularly for internally displaced persons and other vulnerable groups, including redesigning primary care through empanelment and family medicine reforms. • Accreditation, contracting and harmonized incentives (through provider payment) for regulating and strengthening private sector primary care delivery. Regulate and strengthen private sector primary care delivery using accreditation, contracting and harmonized incentives (through provider payment).
Administrative, governance, and others: Increase awareness of the challenges and opportunities of ageing population in Iraq.	• Form an actuarial unit that would work on the financial projections for both the pension fund and pension benefits paid by the general budget.	• Implement the actuarial unit.

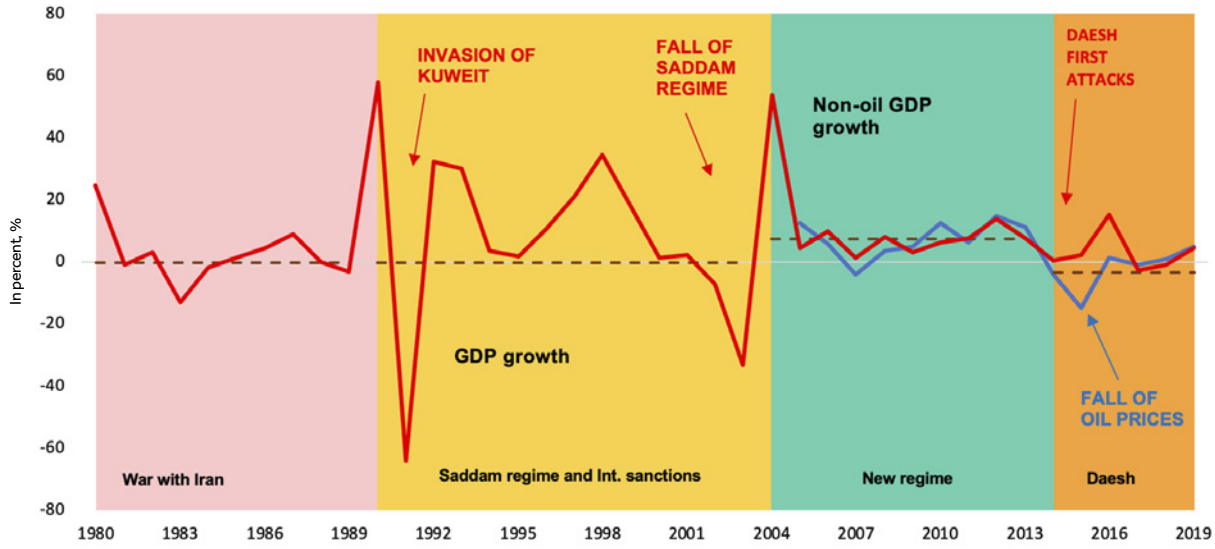
Chapter 1:
Macro-Fiscal Context - Creating Fiscal Space for Human Capital Spending

1.1 Iraq's volatile economic growth

A heavy reliance on oil, combined with repeated conflicts and sectarian tensions, has hindered sustained economic growth in Iraq.

Iraq's economy has endured decades of political instability and oil price volatility. Over the past 40 years, the price of oil has been shaped by conflicts with its neighbors, a US invasion, transitions of power, international sanctions, and internal armed conflict (Figure 4). During this tumultuous period, Iraq's oil wealth helped sustain a fragile political economy. Following the fall of the Saddam regime, Iraq's social contract came to involve a complex patronage network, whereby oil rents are distributed among selected groups. Instead of being used to build infrastructure or improve the quality of educational services, oil revenues have been used to expand public sector employment and transfers. The use of oil income to maintain networks of power stands in the way of pursuing growth-enhancing reforms in sectors such as health and education.

Figure 4. **Decades of political instability and oil price volatility**



SOURCES / *World Development Indicators*

The volatility of GDP growth reflects the country's frequent conflicts and reliance on oil. Between 2005 and 2019, GDP grew by an average of 5.5 percent, 2 percentage points higher than the regional average. This, however, masked the very high volatility of growth in Iraq (Figure 5). The standard deviation of growth was more than double the regional average and almost 4 times as high in the non-oil economy. Output volatility is of concern for economists, as it is associated with lower growth and lower investment in human capital[1]. Since the conflict began in 2014, oil has been virtually the only source of economic growth in Iraq. Almost all the growth in real GDP from 2014 to 2016 was driven by oil production, seeing that the crisis severely curtailed the non-oil economy.

While average growth rates have been strong, per-capita incomes have not kept pace with other upper-middle income countries. GDP per capita grew at an average of 2.7 percent over the period 2005-2019. This rate of growth, however, remains much slower than the UMIC average of 4.4 percent. Up until the recent conflicts, Iraq had largely kept pace with UMIC countries, but has barely grown over the past few years. The scale of the damage caused by the conflict can be seen more clearly when examining non-oil GDP, which has fallen by almost 27 percent, in per-capita terms, since 2013 (Figure 6). Given Iraq's very high fertility rate, the GDP needs to grow at a much higher pace, exceeding 5 percent per year if it were to close the gap with other upper-middle income countries and the region.

1. Guillermo Perry, *Beyond Lending: How Multilateral Banks Can Help Developing Countries Manage Volatility* (Washington, DC: Center For Global Development, 2009);
and Tom Krebs, Pravin krishna, and William Maloney, *Income Risk and Human Capital in LDCs* (Washington, DC: World Bank, 2005).

Figure 5. **GDP growth**

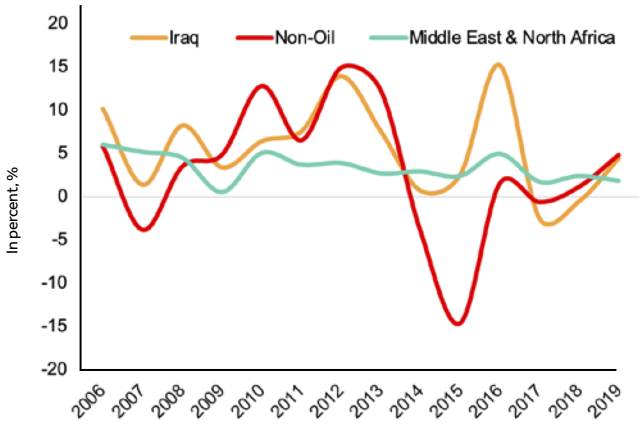
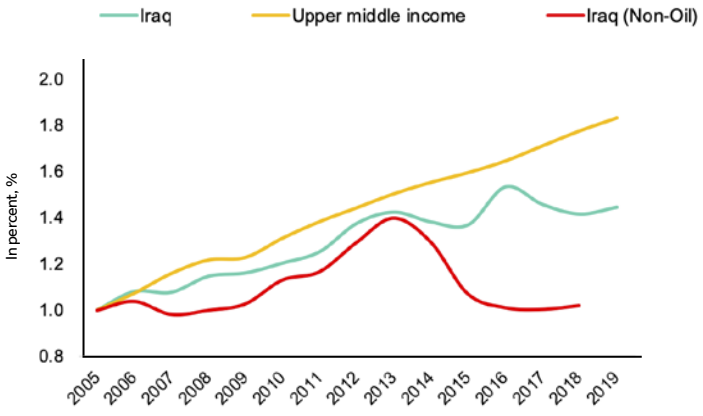


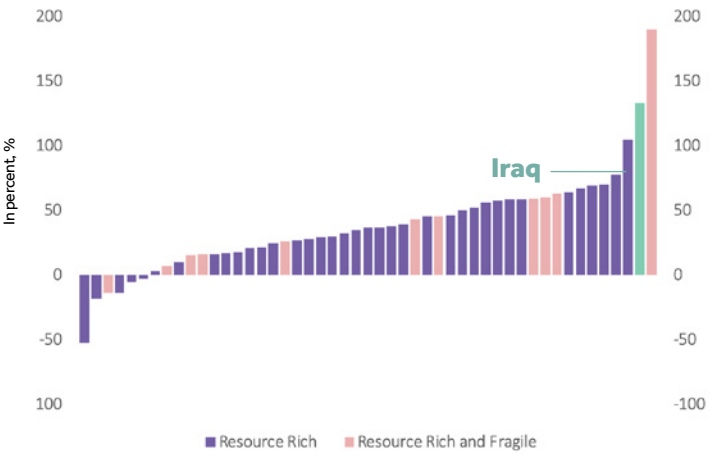
Figure 6. **Per capita GDP, (2005=100)**



SOURCES / *WDI; Iraqi authorities; and WB staff estimates.*

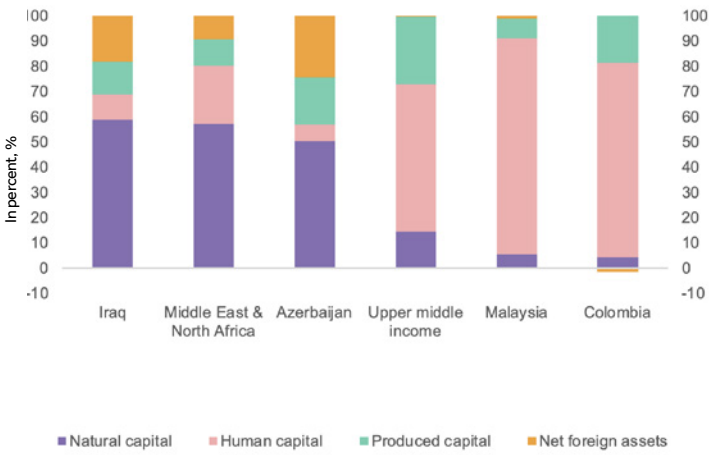
The increase in Iraq's standard of living has been driven, mainly, by the depletion of the country's oil reserves. Iraq's per-capita wealth grew strongly prior to the most recent conflicts. For the period 2005-2014, the country's wealth grew by 133 per cent, one of the highest rates among resource-rich and resource-rich fragile countries (Figure 7). Compared to upper-middle income countries and selected peers, however, Iraq's wealth, during that period, was driven chiefly by the depletion of its oil reserves (Figure 8). Among aspirational peer countries (Malaysia, Colombia, and Azerbaijan), most of the wealth-creation occurred via the improvement of the stock of human capital (size, quality, and health of the labor force).

Figure 7. **Growth in per capita wealth (2005-2014)**



SOURCE / *Lange et al. (2018).*

Figure 8. **Contribution to growth in per capita wealth (2005-2014)**

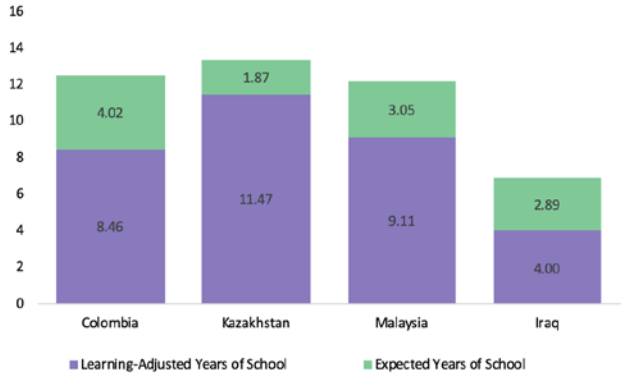


SOURCE / *Lange et al. (2018).*

Iraq can markedly increase living standards by improving the quality of its human capital. The country's level of human capital is well below that of peer countries.[2] The expected years of schooling is 6.9, but falls to only 4 once adjusted for the quality of education (Figure 9). By comparison, expected years of schooling in each of the peer countries stands at above 12. If Iraq were to attain years of schooling similar to these countries, or, for that matter, match the values of the region or of upper-middle-income countries, it would considerably raise GDP per capita (Figure 10).

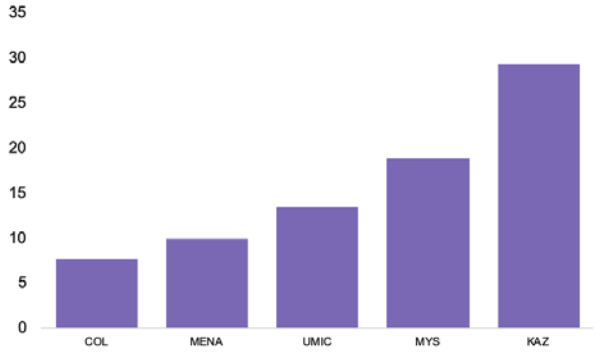
2. See World Bank Group, "Iraq Country Economic Memorandum, Breaking Out of Fragility".

Figure 9. **Human capital in Iraq**



SOURCE / World Bank Human Capital Index

Figure 10. **Percent increase in GDP per capita from increased human capital**



SOURCE / Author's Calculations

If Iraq wishes to invest further in its human development, it must create the necessary fiscal space. The quality of Iraq's workforce will drive future prosperity. Iraq must improve its education system, not only at the level of educational attainment, but also in terms of learning quality and the educational attainment of women, who lag behind men in areas such as literacy. In order to maximize the potential of its people, Iraq needs to improve its health, pension, and social protection systems.

1.2 Fiscal Revenue and Public Expenditure Analysis

Let us now turn to the characteristics of Iraq's fiscal position, and, importantly, the ways in which it can create the fiscal space to fund any desired investments in health and education.

Revenue

The Iraqi government continues to rely, almost solely, on the oil sector as a source of revenue.

Iraq's revenues are dominated by oil receipts. From 2005 to 2014, oil receipts accounted for an average of 81 percent of total revenues. However, and despite the oil price shock in 2015-2016, the share of oil revenues grew steadily for the period 2014-2019. This reflected a 20 percent increase in oil production, from 4 million bpd in 2015 to 4.8 million bpd in 2019, which resulted in an increase in the ratio of oil revenue-to-GDP, from 25 percent in 2015 to 36 percent in 2019.

The reliance on oil revenues makes the budget sensitive to oil price volatility. For. every dollar drops in international oil prices, oil revenues fall by 1.4 USD billion. For that reason, periods of oil price shock substantially decrease fiscal revenues. After peaking at 92 USD a barrel, in 2014, oil prices plunged to an average of US$40 a barrel in 2015-2016, before starting a gradual recovery to an average of 63 USD a barrel in 2018-2019. The rapid deterioration in oil prices for the period 2014-2016 caused a considerable drop in fiscal revenue, which fell by almost 12 percentage points of GDP, spurring a decrease in oil revenues from 36 percent in 2014 to only 21 percent of GDP in 2016 (Figure 11).

Iraq's non-oil revenues are small, relative to peer countries. In 2017, and following the rapid deterioration of Iraq's fiscal position, over the 2015-2016 period, the authorities undertook a number of measures to improve non-oil revenues, including the introduction of a flat withholding tax of 3.8 percent on wages and the adoption of a tax on internet services. The implementation of these measures, however, was weakened by capacity constraints, poor tax compliance, and collection efforts and expansions in customs exemptions. As such, the country revenues became less diversified, with non-oil revenues averaging only 18 percent of total revenue

between 2015 and 2019 (Figure 12). Iraq's tax revenue collection performed similarly poorly. The tax-to-GDP ratio was only 1.7 percent on average in 2015-2019, lagging far behind both the MENA regional average (11 percent), and that of Upper-Middle Income countries (12 percent).

Figure 11. **Oil prices and oil revenue**

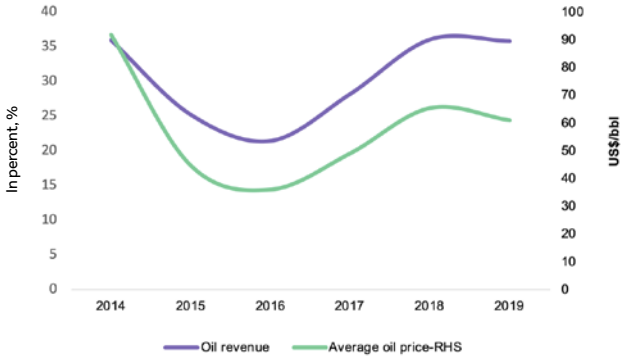
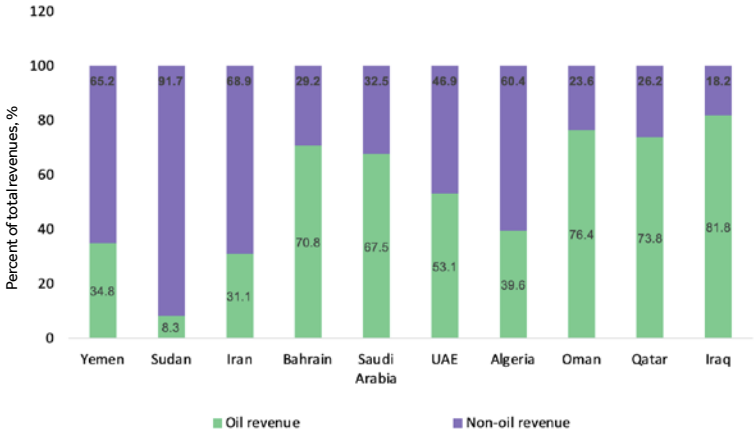


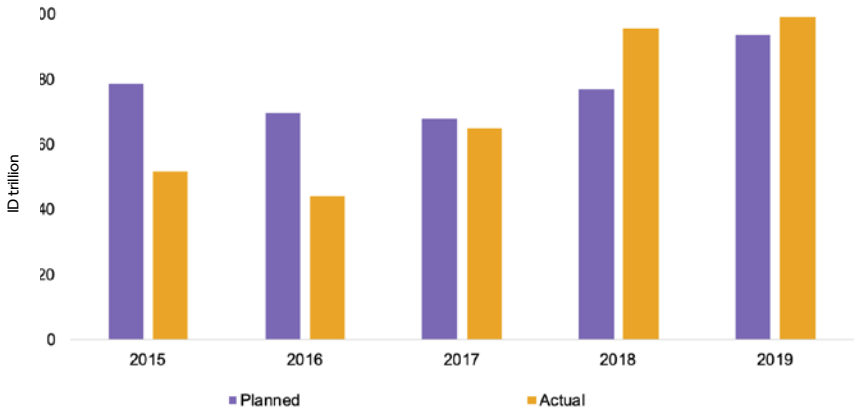
Figure 12. **Non-oil revenue**



SOURCES / UNCTAD; Iraq COSIT; WDI; and World Bank Staff Calculation.

Sudden changes in oil prices imply significant swings in the planned revenue. The uncertainty associated with oil price swings can have a negative impact on budget decisions and investment.[3] For instance, the oil price shock of 2015-2016 has rapidly impacted the budgeted oil revenues during that period. Figure 13 shows how the budget revenue is typically affected by sudden negative or positive shocks to the oil prices, with revenues swinging from 52 trillion IQD to 99 trillion IQD between 2015 and 2019. Aggravating the situation, and taking into account the procyclicality of the spending pattern, the period of booming oil revenues was channeled towards military and security expenditure, rather than productive investments in human capital and infrastructure. This indicates that better fiscal policy decisions are needed to ensure other revenue sources and reserves can be made available to cover short-term needs, as well as allow for long-term economy-boosting investments.

Figure 13. **Budgeted and actual oil revenues**



SOURCES / Iraqi authorities; and WB staff estimates.

A key step to creating adequate fiscal space will be increasing the share of non-oil revenues. Iraq can take steps towards improving collections, such as ameliorating tax and customs administration. Medium-term revenue strategies will be crucial in enhancing the impetus and commitment for reform, including the simplification of

3. John Elder and Apostolos Serletis, "Oil Price Uncertainty." Journal of Money, Credit, and Banking 42 (6) (2010): 1137–59.

the tax system, the streamlining of allowances, and the tackling of exemptions and incentives. Efforts could also include the introduction of new, non-oil taxes, and the proper funding and administration of tax compliance. Stricter enforcement of customs rules and procedures, which nonetheless grants some degree of autonomy to the revenue authorities, could help mobilize additional revenues. Recent reforms in nearby Saudi Arabia, in which non-oil revenues increased by around 71 percent, can provide important lessons on how this could be achieved in Iraq (see Box 1, on non-oil revenue reforms in Saudi Arabia).

BOX 1

INCREASING NON-OIL REVENUE COLLECTION: THE CASE OF SAUDI ARABIA

As this report highlights, it is important that oil-rich countries diversify their revenue bases beyond oil. In Iraq, the extreme reliance on oil revenues produces large, pro-cyclical swings in expenditures, resulting in painful expenditure cuts in times of falling oil prices. In examining ways to diversify Iraq's revenues to encompass non-oil sources, it is useful to examine other countries in the region who have already begun this process. One such country is Saudi Arabia. Although reforms in the Kingdom are recent, there are, nonetheless, interesting lessons that Iraq can learn from the Saudi experience. [4]

In the period 2012-2015, non-oil revenues in Saudi Arabia were around 4.8 percent, of which taxes represented around 2.8 percent of GDP. In 2016, Saudi Arabia started introducing a range of revenue measures. This included a value-added tax (VAT), a foreign worker levy, and a number of excises on products such as tobacco and sugary drinks. The goal of these measures was to increase non-oil revenues. In 2018, the new, non-oil revenues raised 3.5 percent of GDP, increasing it to 8.2 percent of GDP. The IMF estimates that, by 2024, non-oil revenues will total around 10 percent of Saudi Arabia's GDP.

To put this in context, in 2018, non-oil revenues in Iraq totaled 4.1 percent of GDP. Similar reforms in Iraq could, therefore, more than double the current level of non-oil revenues collected. If we constrain the analysis only to the VAT, non-oil revenues would increase by 1.6 percentage points, more than half of the current level.

There is room for further improving the VAT in Saudi Arabia. For example, the levied rate of 5 percent is one of the lowest in the world. The registration threshold for the tax is one of the highest in the world. Efforts to raise the base and lower the threshold would improve the level of collections in Saudi.

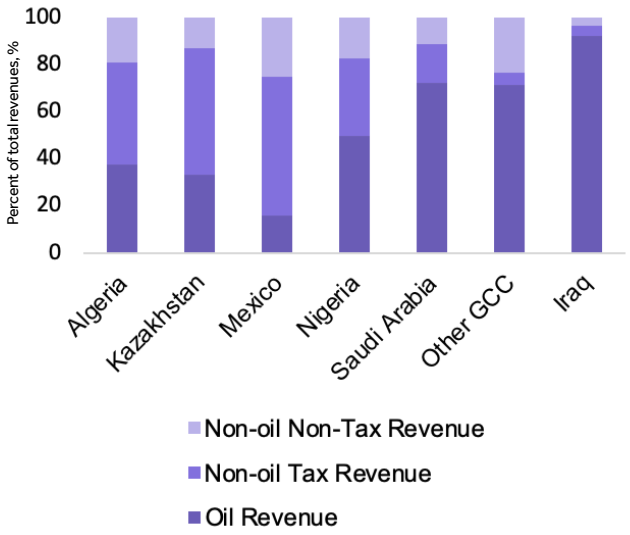
Table 1. **Saudi Arabia non-oil revenues collected and revenue structure (2018)**

	Percent of GDP
VAT	1.6
Excises	0.4
Expat Levy	1.0
Other	0.5

	Percent of GDP
Total Revenue	44.1
Non-Oil	12.4
Non-Oil Tax	7.2
Oil Revenue	31.6

SOURCE / IMF 2019 and Iraq Ministry of Finance ;٢٠١٩

Figure B1. **Composition of revenues**



4. This box draws on the IMF Selected Issues for Saudi Arabia from the 2019 IMF Article IV Report.

Expenditures

Government spending in Iraq is beset by rigid spending on government employment and transfers, and volatile changes in much-needed public infrastructure.

The rigid and procyclical stance of the budget enhances the volatility of the economy. The Iraq budget has a high level of rigid expenditures, particularly on wages and transfers. As the previous section demonstrates, this spending relies entirely on oil prices to fund it. This is particularly problematic when oil prices fall, since, in that case, non-rigid spending must be cut drastically to balance the fiscal position. As a result, Iraq's government spending is highly correlated with the oil price, making the booms and busts in the economy bigger (Figure 14). The rigidity of spending, particularly on salaries, means that spending that could effectively be productivity-enhancing for the economy, particularly spending on much-needed public investment and human capital programs, must be cut when oil prices fall (Figure 15).

Figure 14. **Correlation of oil prices and government expenditures**

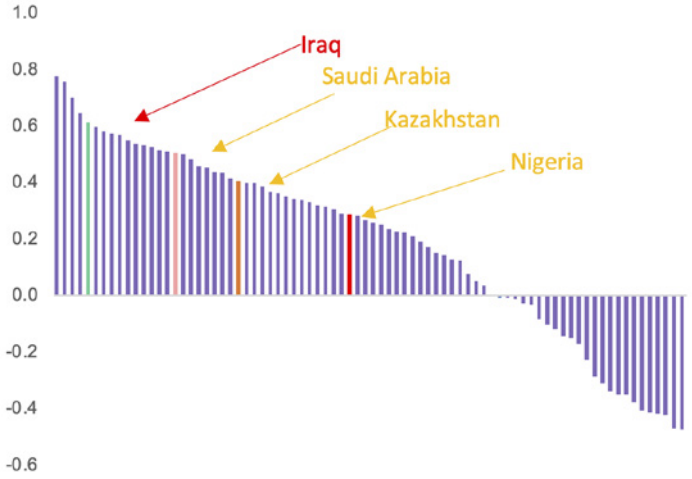
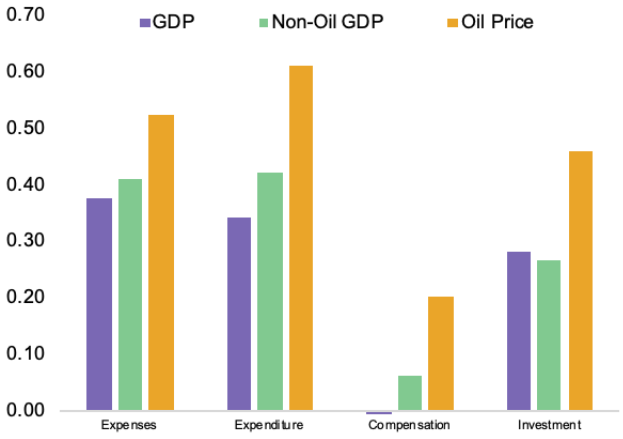


Figure 15. **Correlation of Iraq government spending to GDP, non-oil GDP and the oil price**



SOURCES / World Development Indicators

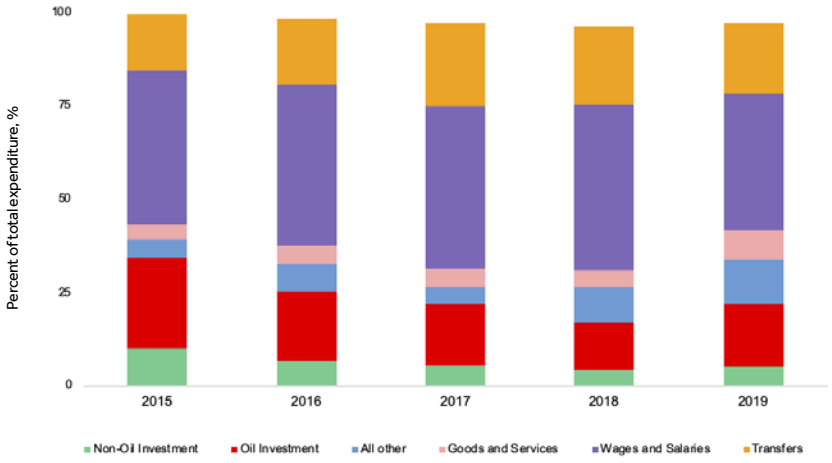
Economic classification

The quality of the fiscal spending in Iraq is poorly targeted, and comes at the expense of productive investment, especially in non-oil investment, which has been disbursing at a slow rate.

Public expenditure in Iraq is high and dominated by recurrent spending. Total expenditures of the Government of Iraq increased significantly between 2015 and 2019, from 38 percent to over 40 percent of GDP, due to growing recurrent expenditure, mainly a rising public wage bill, transfers, and good and services. These three categories absorbed nearly 64 percent of total public spending (or 26 percent of GDP) in 2019 (Figure 16). As a result, recurrent spending increased from less than 26 percent of GDP in 2015 to 32 percent of GDP in 2019.

The wage bill has grown in recent years, becoming the largest component of public spending. By inflating the wage bill, pervasive political patronage distorts fiscal resource allocation. As a result, wages expanded from 12 percent of GDP in 2014 to nearly 15 percent of GDP in 2019. The wage bill has become the most rapidly growing item, equivalent to over 39 percent of total spending, in 2019, compared to less than 27 percent in 2014. As a share of GDP, most of the wage bill increase during 2015-2019 occurred in three sectors: security (6.5 percent), general public services (4.5 percent), and education and higher education (4 percent). The spatial distribution of the civil service leaves critical services, such as education and health, with averages of only 12 and 5 percent, respectively, of the total spending over (2015-2019), and areas (in the south and north) underserved.

Figure 16. **Government spending in Iraq**



SOURCES / World Bank Development Indicators and IMF World Economic Outlook

The growing wage bill in Iraq also reflects the growth in public sector employment. With unchecked recruitment, indiscriminate hiring, and fraudulent payroll practices, the number of public sector employees more than tripled from 1.2 to 3 million employees between 2003 and 2019, representing nearly 42 percent of all jobs. Adding state-owned enterprise (SOE) employees would bring total employment in the public sector to 3.5 million, making up one-half of all jobs in the country. High wage bills in the ministries of health and education, for instance, reflect the large number of employees in these sectors. Between 2015 and 2019, the number of employees in the ministry of health increased from less than 100 thousand to almost 250 thousand (150%), while that of the ministries of education and higher education increased from 250 thousand to 772 thousand (187%). The proliferation of "ghost" workers has also contributed to the wage bill increase.

Public spending on transfers and goods and services has also been increasing in recent years. Spending on goods and services peaked at 3.2 percent of GDP in 2019, increasing from only 1.6 percent in 2015. Between 2015 and 2019, transfers increased from less than 6 to 8 percent of GDP, and from 15 to over 19 percent as a share of total spending. Pensions and Public Distribution System (PDS) are the largest and most rigid component of the transfers, and, together, increased from 4 to 6 percent of GDP. Chapter 2 of this report delves further into the sustainability, efficiency, and equity of the pension system in Iraq.

The level of recurrent spending in Iraq is markedly higher than that of similar countries. At 32 percent of GDP (or 78 percent of total spending), Iraq's recurrent spending surpasses that of other resource-rich countries in the region, such as Saudi Arabia (27.5 percent) and the UAE (26.7 percent) [Figure 18]. Iraq's spending also outweighs that of other fragile countries and those beset by conflict. For example, oil exporters spending in the MENA region averages only 11 percent of GDP on wages, while it averages 15 percent in Iraq (Figure 17). At 15 percent of GDP (and 26 percent of non-oil GDP) in 2019, the wage bill also ranks amongst the highest among MENA oil exporters (11 percent) and fragile states (9 percent).

Figure 17. **Wage Bill in Iraq and comparators**

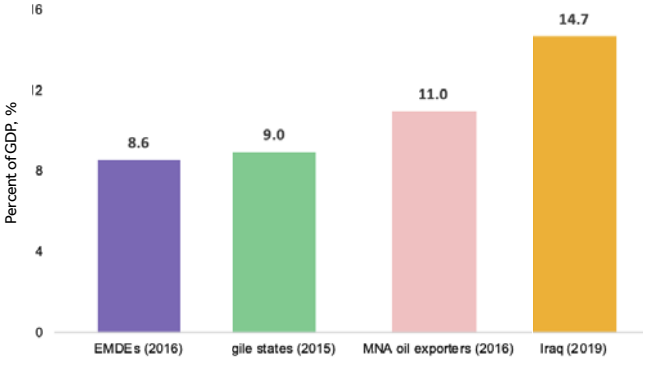
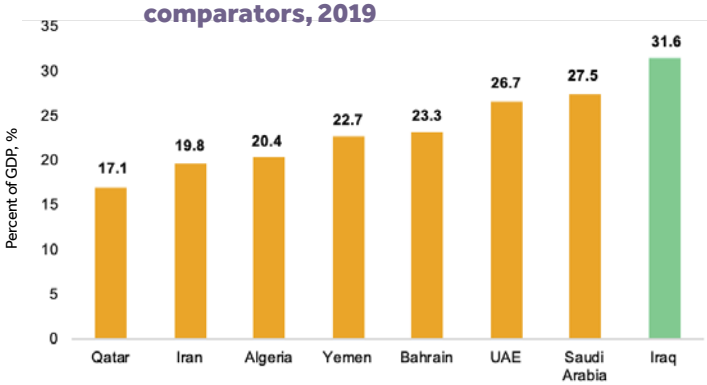


Figure 18. **Recurrent spending in Iraq and other comparators, 2019**



SOURCES / Iraq COSIT; WDI; and World Bank Staff Calculation

The level of public investment in Iraq, despite some progress having been made to increase it, remains insufficient. The share of public investment in total spending has sharply declined from 31 percent, in 2014, to only 22 percent, in 2019. Additionally, it declined as a share to GDP, from over 14 to less than 9 percent, over that same period. Iraq's public investment, a large share of which is dedicated to the oil economy at the expense of non-oil investment, continues to suffer from inefficiency and a lack of effectiveness. In 2019, 78 percent of investment was oil related (7 percent of GDP), leaving only 22 percent for non-oil investment (or 2 percent of GDP) [Figure 19)]. Compared to its peers, the level of investment is low in Iraq. In 2018, investment was only 5 percent of GDP, compared to 21.5 percent in MENA and 29.8 percent in upper-middle-income countries (Figure 20). Averaging less than 9 percent of GDP during 2015-2019, public investment in Iraq is low, when compared to a country like Algeria, where public investment exceeded 15 percent of GDP. While these investments have successfully raised Iraq's oil production, the allocation of investment away from human capital infrastructure and programs has not helped improve human development outcomes.

Figure 19. **Oil vs non-oil investment**

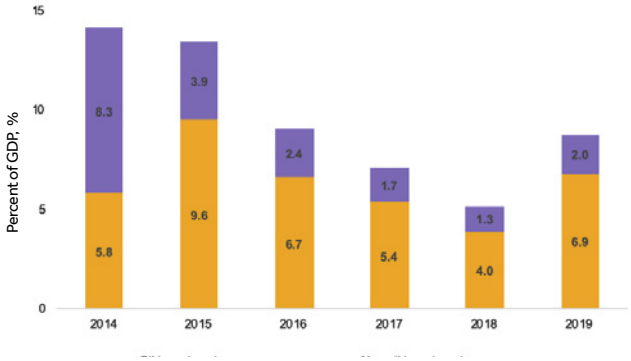
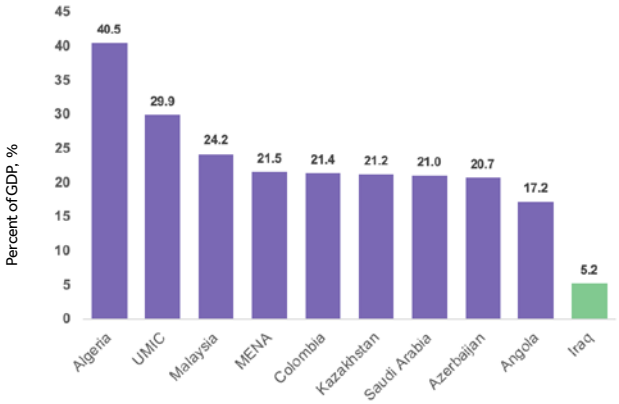


Figure 20. **Total investment vs peer countries, 2018**



SOURCES / Iraq COSIT; WDI; and World Bank Staff Calculation

Public investment in Iraq suffers from swings in the oil price and problems with execution. The focus on oil investment comes at the expense of services and non-oil sectors, which played a relatively marginal role, especially in the past 5 years. To consolidate the fiscal balance, most of the adjustments made during the ISIS war and oil price shocks were achieved via a drastic cut of non-oil investment. As a result, the latter accounted for an average of only 5 percent of the total spending envelope between 2016 and 2018, compared to an average of 16 percent in oil investment, before slightly increasing to 0.8 percentage points of total spending in 2019.

The problem of public investment is compounded by the weakness of the budget execution for the social sectors, which aggravates the inefficiencies of public spending in said sectors. It comes as no surprise that actual data for 2019 indicate that the recurrent expenditure was the best-performing type of expenditure, executed at almost 80 percent, and mainly driven by a wage bill at nearly 94 percent. Moreover, under-execution of the investment budget persists, with most of capital spending going towards the oil fields (Figure 21). The execution rate for oil related investment reached 129 percent, while that of non-oil sectors stood at 30 percent. This raises concerns over service delivery, a rising infrastructure gap, and a stalled reconstruction program. Such results not only put a drag on long-term sustainable growth, but also increase social vulnerabilities, especially at a time when boosting human capital systems is essential to managing the impact of COVID-19.

Figure 21. **Execution rate on Investment and Wages**

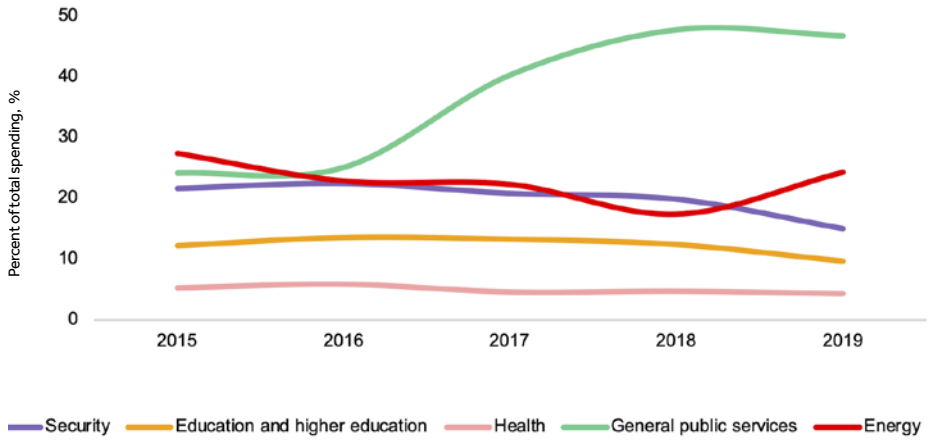
SOURCES / Iraq COSIT; WDI; and World Bank Staff Calculation

Administrative classification[5]

Administrative spending in Iraq is largely directed to general services, energy, and security. Spending on human development sectors, such as health and education, is relatively low and heavily weighted towards wages and salaries.

Sectoral spending in Iraq is dominated by general public services, energy, and security. The share of the general public services (executive, legislative, and external affairs) in total public spending has been consistently high, averaging over 37 percent in 2015-2019. In 2019, general public services accounted for almost 47 percent of total budget allocations (or 19 percent of GDP) (Figure 17). Allocations to security and energy sectors accounted, together, for an average of almost 42 percent of total spending (over 15 percent of GDP) during the same period. In 2019, energy and security sectors received more than 24 percent (10 percent of GDP) and 15 percent (6 percent of GDP) of total budget, respectively.

Figure 22. **The share of expenditure on health and education is low and declining**



SOURCES / Iraqi authorities; and WB staff estimates

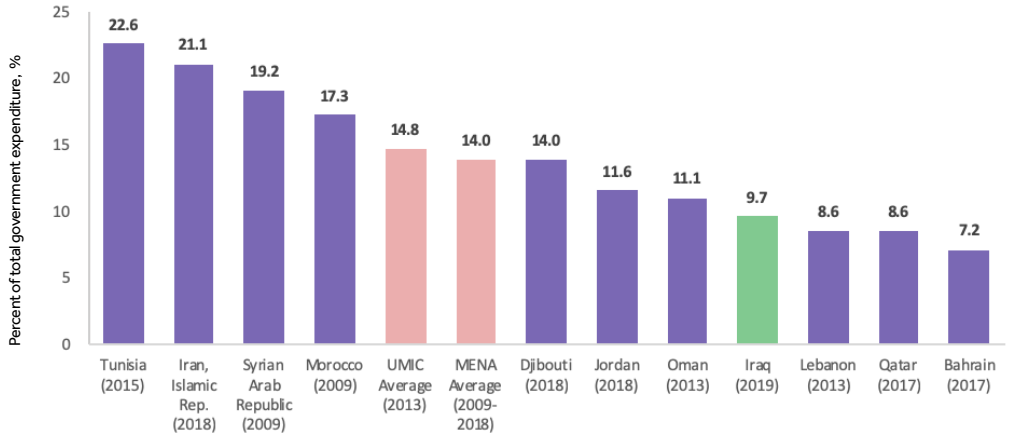
5. Total spending on health and education sectors in chapter 1 reflects the public expenditures only.

Security and general public services account for a large share of recurrent spending, especially wages. Over 57 percent of the total recurrent spending was allocated to general public services, in 2019, compared to 31 percent in 2015. Despite a decline from 2015 levels, the share of security in total recurrent spending remained high at 19 percent (6 percent of GDP) in 2019. The wage bill allocated to wages for general public services represented 46 percent of the total wage bill, in 2019, compared to 18 percent in 2015. At 40 percent of the total wage bill, the share of the security wages was also quite high, despite a slight decline from 43 percent in 2015.

Spending on health and education is low and getting lower. Between 2015 and 2019, the portion that education and health sectors occupied in government spending declined from 5 and 2 percent of GDP, to less than 4 and 2 percent, respectively. Combined, these sectors comprised only 17 percent of total budgetary spending, during that same period. Furthermore, Iraq spends the lowest share of public budget on these two sectors, compared to MENA and UMI (Figure 23 and Figure 24). Only about 10 percent and 4 percent of the government budget, respectively, were allocated to education and health in 2019. For reference, MENA and UMI spent 14 and 14.8 percent of their national budget on education and health, respectively[6]. With the expenditure on health remained stagnant at an average of 1.6 percent of GDP since 2017, it lags that for MENA and UMI at 3.3 percent of GDP each (2017). This problem has been persistent since 2003, with successive budgetary allocations continuing to favor household consumption (wages, subsidies, transfers, etc.) at the expense of non-oil related public investments and spending on human capital.

Government spending on social sectors remains heavily weighted towards operational spending, mainly wages and salaries. The operational budget constitutes over 98 percent of the total funds allocated to the education and health sectors. Historically, the share of education sector wages in the total wage bill has been the largest, after defense and general public services, averaging 28 percent (or 4 percent of GDP) during 2015-2019. Over 94 percent of the total budget allocated to education sector was spent on wages, during 2015-2019. The share of the health wages in the total wage bill was also high at 9 percent (or 1.3 percent of GDP), with almost 74 percent of its allocated budget directed towards paying salaries, in 2015-2019 (Figure 25). Nevertheless, the output from such spending remained below par, raising questions over the quality that the related staff is delivering (for a more detailed discussion of health and education, see chapters 2 and 3, respectively).

Figure 23. **Education spending compared to peers**



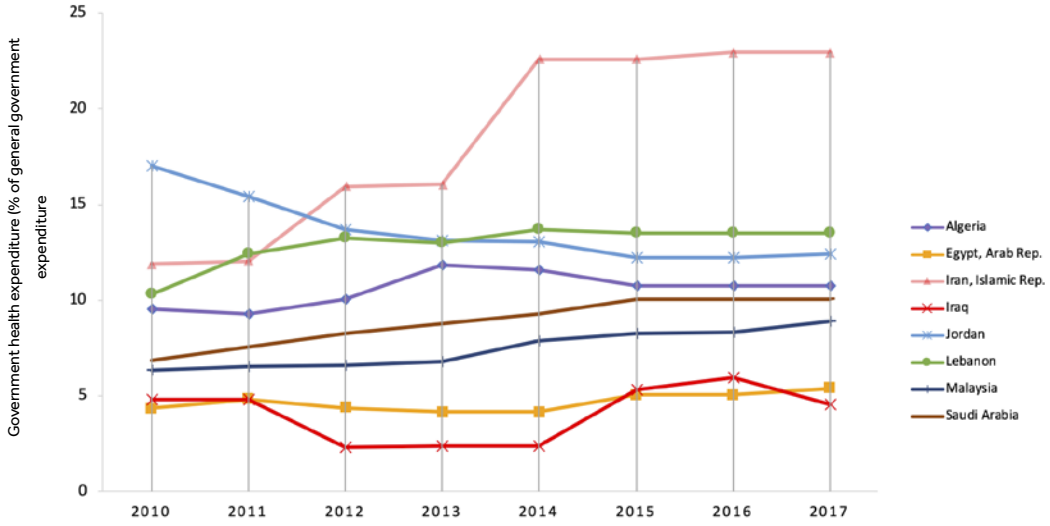
SOURCE / WDI; and WB staff calculations.

In contrast, government investment expenditure in social sectors is at historically low levels. Investment in health and education accounted for only 1.3 percent of total budget investment in 2015-2019, compared to nearly 79 and over 11 percent in energy and general public services activities, respectively. In fact, the combined share of these investment in these sectors in total government investment expenditures decreased from less than 2 percent in 2015, to 1 percent in 2019 (Figure 26). Education and health sector investment also suffer from chronic under-execution. The execution rate of investment was 17 percent for education and only 4 percent

6. Data available in the WB-EdStats for MENA (avg. 2009-2018), UMI (2013).

for health, in 2019, compared to an execution rate of almost 100 percent for investment in energy.

Figure 24. **Health expenditures compared to peers***



SOURCE / WDI; and WB staff calculations. *Domestic general government health expenditure as a share of general government expenditure in Iraq and comparator countries, 2010-2017.

Figure 25. **Wage bill in total budget allocations for education and health sectors**

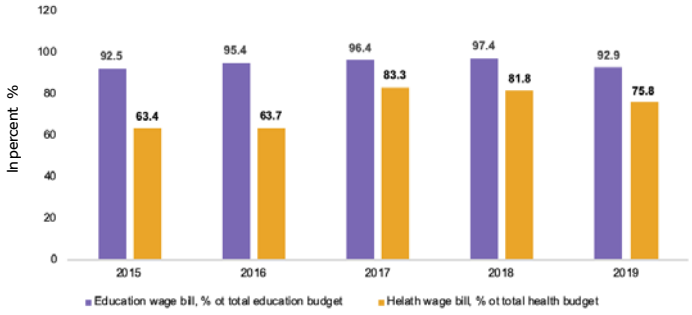
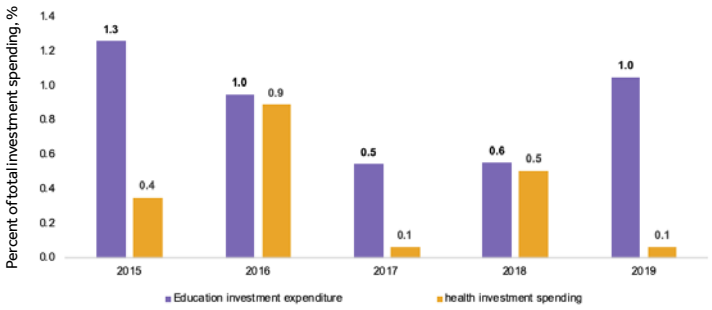


Figure 26. **Share of sectoral investment in total public investment**



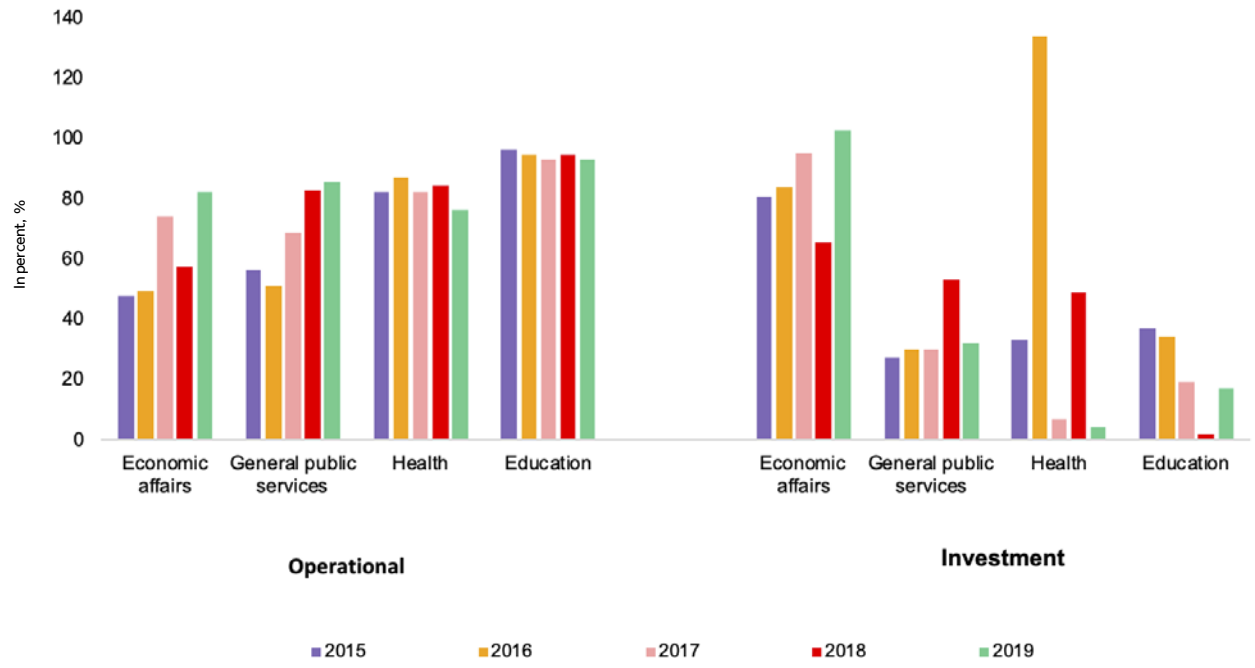
SOURCES / Iraqi authorities; and WB staff estimates

The low level of investment in these sectors stands in stark contrast to their large needs. Iraq's latest World Bank Damage and Needs Assessment (DNA) estimated that the total reconstruction and recovery needs in the education sector, following the recent ISIS conflict, is estimated at 5.4 trillion dinars (USD 4.6 billion). In the health sector, the DNA estimated that more than 50 percent of the health facilities assessed in 2018 were damaged, 30% of which were destroyed. The cost of reconstruction of these damages was estimated at IQD 2.7 trillion (USD 2.3 billion).

Spending on health and education is also beset by poor implementation of budgeted allocations. There is a persistent under-execution of the investment budget, with most of capital spending going towards the oil fields (Figure 27). The most recent available data for 2019 reveals that the execution rate of oil related investment reached 129 percent, while that of non-oil sectors stood at 30 percent. This raises concerns over service delivery, rising infrastructure gaps, and stalled reconstruction programs. Such results not only put a drag on long-term sustainable growth, but also increase social vulnerabilities, especially at a time when boosting human capital systems is essential to manage the impact of COVID-19. As a result, education and health sectors suffer from chronic under-execution on investment budget, at only 17 percent and 4 percent in 2019, respectively, compared

to almost 100 percent execution rate for energy sector.

Figure 27. **Execution rate for human capital sectors vis á vis other sectors**



SOURCES / Iraqi authorities; and WB staff calculations

1.2 Creating the Fiscal Space for Human Development Spending in Iraq

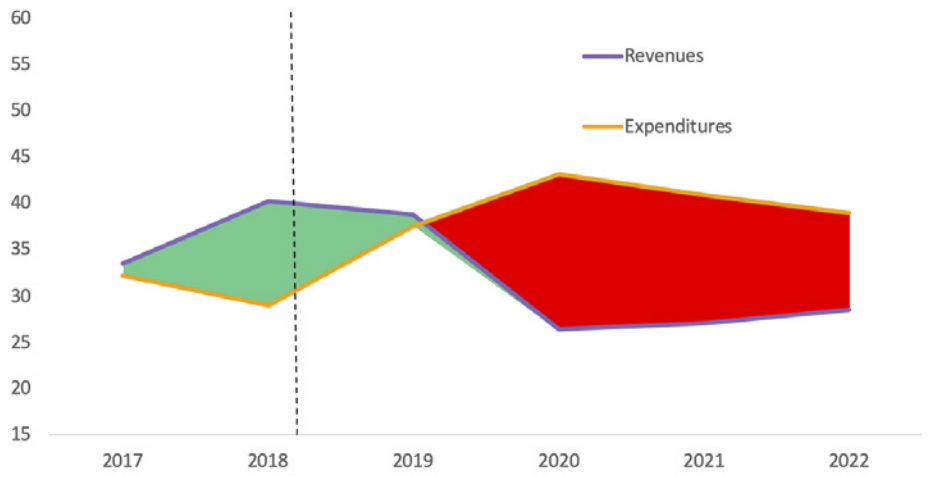
If Iraq wishes to increase spending on health and education, it needs to create the necessary fiscal space. Important measures to achieve this would include increasing the efficiency of spending, improving the pension system, moderating increases in recurrent spending, and developing non-oil revenue sources.

The current fiscal projection for Iraq is dire, reflecting recent spending and revenue trends and recent world events. Recent falls in oil prices are expected to drastically reduce the amount of revenue available to the government. Combined with the rigid expenditures on wages and salaries, and transfers, outlined in this report, non-oil investment is projected to halve over the projection period (as a share of GDP). The overall result for Iraq is a projected fiscal deficit of almost 17 percent of GDP in 2020 (Figure 28). [7]

Iraq must work against this extremely challenging environment in order to create much-needed fiscal space. To improve the fiscal situation, Iraq can investigate several areas. First, spending in Iraq is very inefficient and heavily weighted towards rigid current expenditure such as wages and pensions (Figure 29). Revenues are also heavily dependent on oil revenues, the outlook for which is very uncertain.

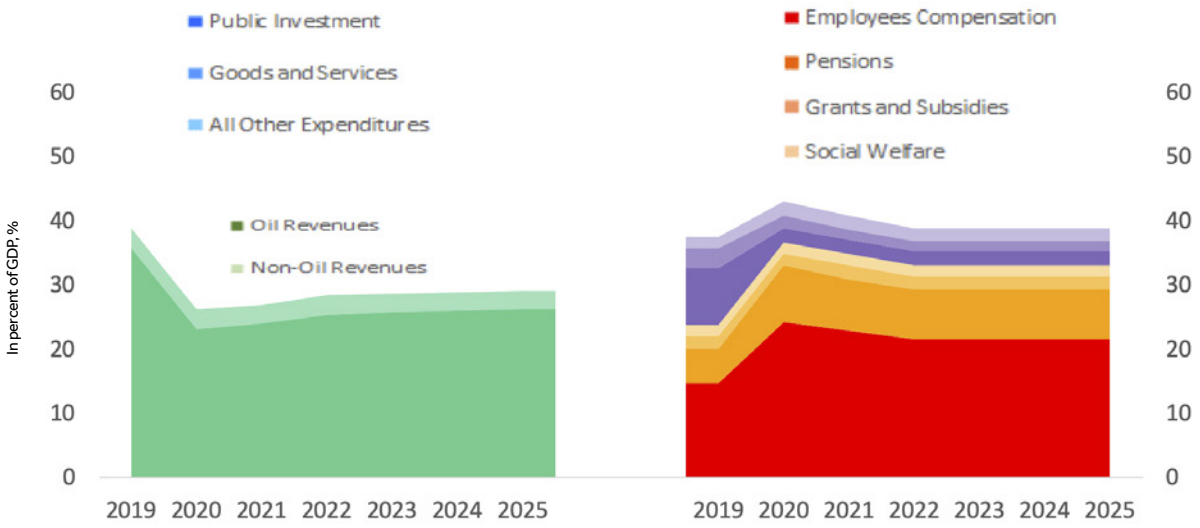
7. The fiscal scenarios were built on data obtained by December 2020 and does not account for the recent decision on the Iraqi Dinar devaluation. According to the more recent World Bank publication the Iraq Economic Monitor Spring 2021, the fiscal deficit for 2020 was 6.5 percent of GDP on cash basis. If wage and other arrears/commitments are added, this deficit would increase to to 13.9 percent of GDP. The 17 percent of GDP recorded in this report does not account for the effect of the devaluation on budget revenues.

Figure 28. **Project fiscal deficit**



SOURCES /World Bank and author's calculations

Figure 29. **Decomposing the fiscal projections**



SOURCES /World Bank and author's calculations

1.3 Snapshot of Public Financial Management

The efficiency of public spending in Iraq is also limited by issues at the level of public financial management. Iraq Public Financial Management (PFM) faces multiple challenges that support efficient and accountable allocation of public resources necessary to address national priorities and human capital development. Weaknesses exist at each stage of the fiscal process: policy review, budget formulation, budget execution, reporting and accounting, and procurement. The budget in Iraq, as it stands, is not an effective policy instrument for public finance. It is formulated on a year-by-year basis, and is not linked to a medium-term fiscal strategy informed by macroeconomic objectives. Aggregate fiscal targets (e.g., expenditures, revenues, deficit) are not supported by a statement of sectoral priorities (such as targets of the development plan).

Poor budget execution is explained, in part, by poor budget planning combined with a lack of internal and external controls. The 2017 PEFA report concludes that "most aspects of the PFM system are functioning

at a barely satisfactory level – one that will make it difficult for GoI to attain its fiscal and budgetary objectives". The report points out several issues regarding the management of public finances and weaknesses in fiscal transparency and accountability, among which are the lack of financial monitoring of budget revenue and expenditure and weak internal and external audit function. Despite its independence, capacity, and broad jurisdiction, the Federal Board of Supreme Audit (FBSA) has not been able to disclose its audit report on budget execution since 2014. In addition, low execution rate of public investment reflects large inefficiencies and serious constraints in public investment management.

Budget execution is hampered by a lack of coherence between procurement plans and commitment plans and delays in their availability, which affects investment budget execution. In the social sectors, for example, the late release of the budget allocation (two to three months after the start of the fiscal year) has been a recurrent issue, leading to disruptions in service delivery. Other issues relate to the weak capacity, at the sectoral level, to implement and reap the benefits of the innovations introduced by the program budgeting approach, as well as a failure to adapt to the new procurement procedures, translating into delays in budget execution.

Iraq's weak PFM systems (budget preparation, execution, and control) are also affected by weak governance and corruption, which aggravate inefficiencies in public spending and weaken delivery of public services. Iraq continues to suffer from a dysfunctional governance system and endemic corruption. The transparency of budget execution, the openness of the procurement process, and the efficiency of cash management are critical to the stability and predictability of investment, the reduction of opportunities for rent seeking, and the increase of spending on social sectors. Overall, governance has hardly improved in the past 15 years, a product, in no small part, of corruption and rent seeking. Perceived governance in Iraq, along with the six dimensions captured by the World Governance Indicators[8] , remain very badly rated, with no significant improvement on any level. In 2018, Iraq ranked among the 9th and 7th percentile of lowest performers in terms of governance efficiency and control of corruption, respectively. Improvements perceived up until five to seven years ago, in the control of corruption, political stability, and regulatory quality, have faded out since.

Corruption is another long-standing drain on resources and finances and reduces the positive effect of government spending on human capital. Rampant corruption in society distorts the structure of public expenditure in favor of defense, fuel and energy, culture, and public services and order, and at the expense of social sectors like education, health, and social protection. Rent-seeking diverts the allocation of talents away from entrepreneurship and innovation towards corrupt activities through which profits can be made.[9] As such, this leads to a diversion of resources away from growth-promoting activities (investments in human capital) towards power-seeking activities (investments in political capital). Under Transparency International Corruption Perceptions Index, Iraq is ranked among the worst performers (168 out of 180 countries). Moreover, Iraq is also rated among the least fiscally transparent countries in the MENA region, with a score of 3 out of 100 in the Open Budget Index.

Iraq has committed to several structural reforms aimed at addressing inefficiencies and managing its public finances. However, the continuation of PFM reform in Iraq can no longer be envisaged without an Integrated Financial Management Information System (IFMIS) in place that automates core budget execution functions (management of appropriations, commitments, payments, receipts, cash management, accounting, and fiscal reporting), and to execute public investment efficiently and effectively. The current fiscal crisis in Iraq also exerts pressure to move ahead with PFM reform in order to help strengthen fiscal sustainability.

An effective public financial management system is critical to improving the quality of human capital and public services outcomes. The transparency of budget execution, openness of the procurement process, and efficiency of cash management play important roles in the physical and human capital formation of any country and reduce opportunities for rent seeking. Last but not least, greater transparency and accountability regarding project management, monitoring, and evaluation are needed to strengthen incentives to deliver projects on time and on budget, and to ensure value for money and integrity in the use of public resources. A medium-term budget with a budget rule, supported by fiscal discipline, ensures that expenditure pressures do

8. The World Bank Group's Worldwide Governance Indicators six dimensions are: voice and accountability; political stability and absence of violence; government effectiveness; regulatory quality; rule of law; and control of corruption.

9. Clara Delavallade, "Corruption and Distribution of Public Spending in Developing Countries". *Journal of Economics and Finance* 30, no. 2 (2006): 222-39; Kevin Murphy at al, "Why is Rent-seeking So Costly to Growth?" May 1993, The American Economic Reviews Review, Vol.88, No.2.9.

not rupture the resource envelope, guarantee allocative efficiency that optimizes societal welfare in distribution of expenditure, and introduce technical efficiency that ensures least-cost delivery of public services.

1.4 Measures for creating fiscal space

The baseline fiscal outlook for Iraq leaves no space for increasing spending. In this section, we outline several scenarios for Iraq's fiscal position. In the baseline scenario, Iraq will have large and sustained fiscal deficits through 2025. To create fiscal space, even in the event of a recovery in oil prices, Iraq will need to undertake many reforms in current expenditures and non-oil revenue.

The baseline projection for Iraq is that of persistent double-digit deficits until 2025. We use the most recent World Bank Iraq Economic Monitor as our reference, which projects Iraq's fiscal position until 2022.[10] For the years 2023-2025, we maintain all the expenditures and non-oil revenues as a percent of GDP constant (Figure 30). Oil revenues increase slightly as a percentage of GDP as we assume that oil production, and hence oil exports and oil revenues, increase by around 1 percent per year. By 2025, these assumptions would result in a fiscal deficit of 17.3 percent of GDP and a cumulative deficit of 71 percent of GDP, following a duration of 6 years (Figure 30).

Even if oil prices rise, Iraq would continue to post large fiscal deficits. Current forecasts for the oil price have it recovering to around 46 USD per barrel on average by 2022. Assuming the oil price gradually increases by 5 percent per year over the period 2023-2025, Iraq would still have a fiscal deficit of 5.6 percent of GDP in 2025.

Significant wage restraint would help balance the budget. We assume that Iraq can reduce the spending on wages as a share of GDP to its level in 2019. This reduction happens gradually from 2021 to 2025, at a rate of slightly more than 2 percent of GDP per year. This assumption, combined with a recovery in world oil prices, would help balance the Iraq budget by 2025 (1.4 percent of GDP surplus).

To create additional fiscal space, Iraq will need to embark on a broader range of fiscal reforms. These could include reforming the pension system, which will put increasing strain on the budget in the coming years[11]. We assume improvements to the pensions system generate savings of 0.5 percent of GDP per year, relative to the baseline scenario. Improving the mobilization of non-oil revenues will also be crucial. Weak compliance has meant that revenues have generally underperformed targets. Recently, Iraq has abolished several non-oil taxes, which will further reduce non-oil revenues. Several measures could be implemented to increase non-oil revenue collection. Most importantly, improvement of tax and custom administration would generate large revenue increases. Reforms could include clearer tax measures and penalties and proper staffing and training of the revenue collection office[12].

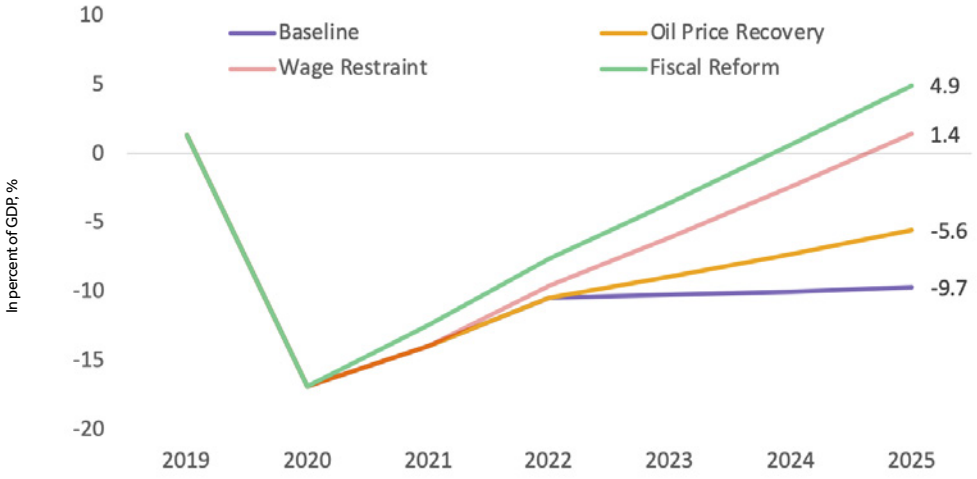
A broader reform package is needed for generating enough fiscal savings to create fiscal space. Building on the previous scenarios, we make two further assumptions: the first is through the savings on pension expenditures, the second through improvement in non-oil revenues. We model these by examining the impact of reforms in Saudi Arabia, which have generated an additional 2.5 percent of GDP in revenue through the imposition of a VAT, excises, and electricity tariffs. We assume that the additional 2.5 percent of GDP is gradually introduced from 2021 onwards. Combined, these two measures result in a fiscal surplus of 4.9 percent of GDP in 2025.

10. *Iraq Economic Monitor: Navigating the Perfect Storm (Redux) (English).* Washington, D.C. : World Bank Group. http://documents.worldbank.org/curated/en/446201588465646751/Iraq-Economic-Monitor-Navigating-the-Perfect-Storm-Redux.

11. See chapter 4 on pensions in Iraq.

12. IMF Article IV, 2019. 12. Pension spending is reduced so that total current expenditures (as a percent of GDP) remain at their 2019 levels.

Figure 30. **Fiscal scenarios**



SOURCES / World Bank and author's calculations

Conclusion

To maintain its upper-middle income status, Iraq needs to diversify its economy away from oil and improve the quality of its physical and human capital. In the current global environment, however, it will be difficult for Iraq to mobilize the resources needed to achieve this. The onset of the COVID-19 pandemic and the fall in global commodity prices will drive the budget to a deficit of almost 17 percent of GDP. Even if oil prices recover, Iraq would still need further fiscal reforms to close the fiscal balance.

To create fiscal space in Iraq, the government must diversify its revenue sources away from oil to domestic sources, as well as improve the efficiency and prioritization of its spending. Significant non-oil revenue could be generated by improving compliance and the monitoring of current taxes, and by implementing other non-oil taxes, such as a VAT. Measures to increase the efficiency of spending improve the pension system, and moderate increases in recurrent spending will enable the government to create fiscal space.

Chapter 2:
Health Sector

Introduction

Iraq's health system has, over the last four decades, suffered from political instability, numerous conflicts, and sanctions. Since the 1980 to 1988 Iran-Iraq War, resources in Iraq have been gradually diverted away from the health sector.[1] During the 1990–1991 Gulf War, and in the following 13 years of restrictions and economic sanctions, the public health budget decreased by nearly 90 percent and health infrastructure and equipment depreciated significantly.[2] In the first years following the 2003 U.S.-led invasion of Iraq, the health sector lost a large number of its human resources, and approximately 12 percent of the country's hospitals were destroyed [3]. The damage to the health system was attributed to both the direct impact of the 2003-conflict and the unrest that governed the country in the following years.[4] Despite the Ministry of Health and Environment (MOHE)'s efforts to rebuild and improve health service delivery post-2003, civil unrest and sectarian strife hindered and prevented the implementation of reconstruction and development plans.[5] In 2011, US forces officially pulled out of Iraq. The security situation, however, remained volatile. Violence intensified in 2013 and 2014 with the commencement of battles against the Islamic State of Iraq and Syria (ISIS).[6] By 2017, ISIS forces had been mostly driven out, but the health system remained severely hindered by damage to health facilities and increased loss of human resources in affected areas.[7] The impact remains visible in the health sector, with governorates such as Anbar, Diyala, Ninawa, and Salah Al-Deen experiencing lower health system capacity and utilization, as well as poorer outcomes.

Against this backdrop, Iraq is one of the most significantly impacted countries from COVID-19 in the MENA region. Since the beginning of the pandemic in March 2020, Iraq has recorded almost 700,000 cases and over 13,000 deaths. As will be demonstrated in the remainder of this chapter, Iraq remains susceptible to a high risk of morbidity and mortality due to COVID-19, not only because of its direct effects, but also its the indirect ones, such as through reduced care-seeking for essential services. This risk is attributable to: a high and growing burden of non-communicable diseases; a diverse range of vulnerable and at-risk populations due to poverty; inequality and displacement; a weak health system with low and inequitable levels of financing, fragmented and inflexible service delivery; limited human and physical resources; and weak surveillance and health information systems. Due to shocks in both the supply and demand of services, coverage of essential services is expected to decline, which may result in increases in the under 5 mortality rate (U5MR) and the maternal mortality rate (MMR). For example, in Iraq, health facility delivery could be reduced by 43 percent, while diphtheria, pertussis, and tetanus immunization may drop by 44 percent. As a result, U5MR may increase by 18 percent, and MMR by 28 percent, compared to projected trends in 2020 in absence of the COVID-19 outbreak.[8] This double burden of responding to COVID-19, and maintaining essential health service delivery, further highlights the need to accelerate health sector reforms.

Governance challenges across the Iraqi government are also hindering progress toward improved health outcomes. While the MOHE holds the primary responsibility of providing health services to the Iraqi population,

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1. Ala'din Awan, *Health in Iraq - The Current Situation, Our Vision for the Future and Areas of Work*. (Baghdad "Iraq's Ministry of Health, 2004).

2. Valeria Cetorelli and Nazar P. Shabila, "Expansion of health facilities in Iraq a decade after the US-led invasion, 2003-2012,"Conflict and Health vol. 8, no.1 (2014): 16, https://doi.org/10.1186/1752-1505-8-16.

3. Leonard S Rubenstein and Melanie D Bittle, "Responsibility for protection of medical workers and facilities in armed conflict", *The Lancet*, vol. 375 (9711), 2010: 329-340, https://doi.org/10.1016/S0140-6736(09)61926-7; Gilbert Burnham et al., "Understanding the impact of conflict on health services in Iraq: information from 401 Iraqi refugee doctors in Jordan", *The International Journal of Health Planning and Management*, 2012-01, Vol.27 (1): e51-e64, doi: 10.1002/hpm.1091

4. Clare Kapp, "Anarchy pushes Iraqi health system to brink of collapse", *The Lancet*, vol.361 (9366), 2003: 1351, https://doi.org/10.1016/S0140-6736(03)13089-9; John Zaracosta, "Exodus of medical staff strains Iraq's health infrastructure,"*BMJ: British Medical Journal* 2007-04-28, Vol.334 (7599): 865, http://www.jstor.org/stable/20506990.

5. Andrew S Furber and Paul Johnstone, "Rebuilding Health Care in Iraq," *Journal of Epidemiology and Community Health* (1979-) 58, no. 11 (2004): 890-92, http://www.jstor.org/stable/25570531.

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7. Nabil Al-Khalisi, "The Iraqi Medical Brain Drain: A Cross-Sectional Study," International Journal of Health Services 43, no. 2 (April 2013): 363–78. https://doi.org/10.2190/HS.43.2.j.; Ashton Barnett-Vanes et al., "Impact of Conflict on Medical Education: A Cross-sectional Survey of Students and Institutions in Iraq," *BMJ: British Medical Journal* Open 6, no. 2 (2016): 010460-010460.

8. Coverage impact is estimated using Lives Saved Tool (LiST), while impact estimates in maternal and child mortality are based on analysis by researchers at Johns Hopkins Bloomberg School of Public Health. Details are available at https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(20)30229-1/fulltext.

its capacity to do so is determined by the laws and regulations set forth by policymakers. The lack of coordination and communication between MOHE and policymakers, in the drafting of those laws, has resulted in the MOHE's needs not being properly reflected in new legislation.[9] Law 21on decentralization,[10] enacted in 2008, is one example: The law had been passed with the goal of empowering the governorates through decentralization. This pushed forward administrative reform in six different ministries, including the MOHE. The decentralization process, however, was poorly executed since it faced: reluctance to enact it, on the part of various ministries[11] ; implementation challenges in the context of the war against ISIS and the ensuing financial crisis of 2014-15; fiscal constraints in capacitating governorates to fulfill their roles; and underlying structural concerns such as widespread corruption at all levels. The law was revised in 2011, 2013,[12] and again in 2018,[13] with the latest amendment retracting the MOHE from being decentralized. This change, however, occurred nearly halfway through the decentralization process, creating an array of legal and administrative confusion. Another example is the medical career progression law,[14] enacted in 2000 and amended, for a third time, in 2020. The law directs the MOHE to hire newly graduated medical professionals from a number of institutions; its latest amendment adds 17 new academic institutions to the list (including non-medical institutions). Since the law does not offer MOHE the flexibility to hire different types of medical professionals based on its needs, it has contributed to a growing and inefficient salaries bill, as demonstrated in the human resources section.

This chapter analyzes Iraq's health system while acknowledging the multifaceted burden it bears. It focuses on health outcomes, utilization, and financing, and provides evidence-based recommendations to improve human capital through a stronger health system. The first section discusses the health sector context and outcomes, with a focus on assessing equity. The second section presents the health system and the service delivery structure across utilization, access, capacity, and quality of care. The third section presents the financing context across financing sources, including an efficiency analysis. The fourth and final section presents recommendations for improving the performance of the health sector across four pillars, through the short-, medium- and longer-term: (i) improving access to quality services; (ii) increasing equity; (iii) maximizing efficiency, and (iv) ensuring preparedness against current and future pandemics.

While all recent available data on the Iraqi health sector is used, there are various data constraints which impact all the sections in this chapter. The analysis on health context, outcomes, and equity relies on data from the 2011 and 2018 Multiple Indicator Cluster Survey (MICS), World Bank World Development Indicators (WDI) and Human Capital Index (HCI), UN Population Prospects, IHME Global Burden of Disease (GBD), and WHO reports on tracking UHC and the SDGs. Data on service utilization and access comes from government statistical data published by Iraq's Central Statistical Organization, as well as from the Ministry of Health and Environment (MOHE) information systems. Data from WDI has been used to compare Iraq to a set of peer countries where data was available.[16] The Iraq Household Socio-Economic Survey (IHSES), conducted by the CSO in 2006-07 and 2012-13, and the Survey of Well-being via Instant and Frequent Tracking (SWIFT), conducted by the World Bank in 2017, were also used to assess utilization and health spending by income quintile, including catastrophic and impoverishing health spending. Health financing data in Iraq remains scarce and fragmented, particularly regarding household and private sector spending. The last detailed national health accounts (NHA) was conducted in 2008 (analysis finalized in 2011); a recent NHA from 2017 was conducted at a higher level, not allowing for disease classifications. In the absence of an integrated financial management information system, primary data collection from the Ministry of Finance, Ministry of Planning, and MOHE was conducted for the financing section regarding the analysis of budgets and expenditures. The data collected includes detailed budget and expenditure data from 2009-2019, including data on health expenditures of all government ministries and directorates.

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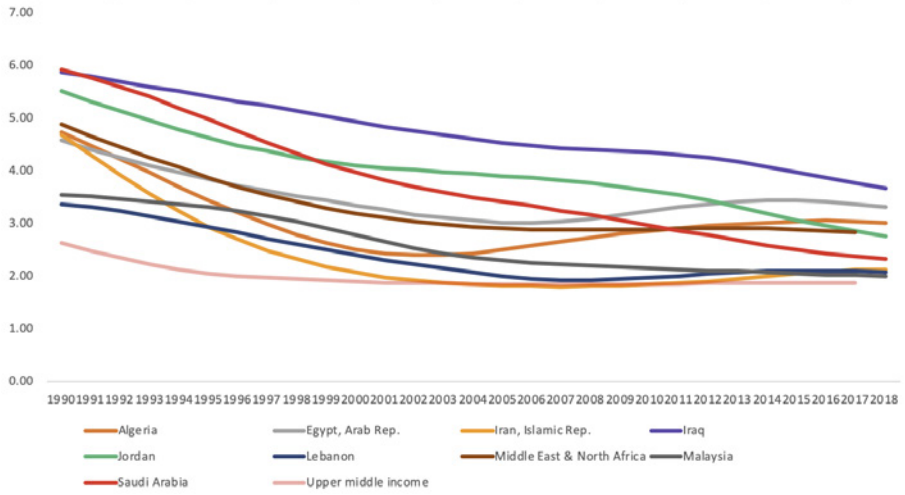
9. Stakeholder interview with MOHE.
10. قانون المحافظات غير المنتظمة في إقليم تمهيد. http://iraqld.hjc.iq:8080/LoadLawBook.aspx?SC=191120086562278
11. Mike Fleet, "Decentralization and its discontent in Iraq". Middle East Institute: 2019. https://www.mei.edu/publications/decentralization-and-its-discontents-iraq.
12. قانون التعديل الثاني لقانون المحافظات غير المنتظمة في إقليم تمهيد . https://www.moj.gov.iq/uploaded/4284_1.pdf
13. قانون التعديل الثالث لقانون المحافظات غير المنتظمة في اقليم رقم (٢١) لسنة ٢٠٠٨.
14. قانون رقم (6) لسنة 2000 (تدرج ذوي المهن الطبية والصحية). http://iraqld.hjc.iq/LoadLawBook.aspx?SC=120120017167343.
15. قانون التعديل الثالث انون رقم (6) لسنة 2000 (تدرج ذوي المهن الطبية والصحية).
16. Throughout the report, the following peer countries have been utilized where data was available: Algeria, Egypt, Iran, Jordan, and Lebanon, as regional middle-income peers; Saudi Arabia as an oil-rich, resource-dependent economy; Malaysia as an aspirational peer, given income, demographic and past conflict status; and Middle East and North Africa (MENA) region averages and upper middle income (UMIC) averages.

Finally, it should be noted that different sources include different governorates; for example, health utilization data from the government data and CSO mostly omit governorates within Kurdistan, even as most other survey data that has been utilized include it.[17] All available data was utilized, and comparisons have been made using only the same data sources.

2.1 Health Context, Outcomes, and Equity

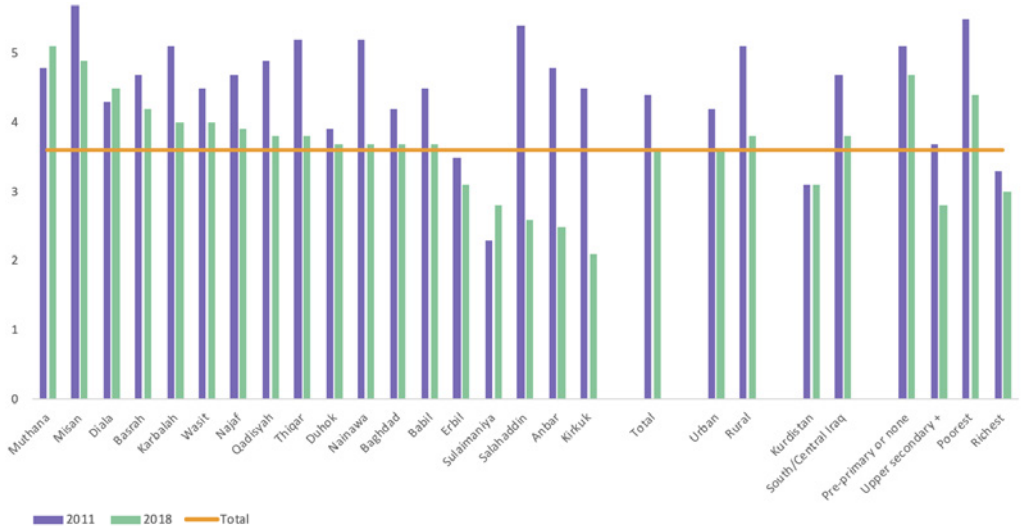
Iraq has one of the highest fertility rates in the Middle East and North Africa (MENA) region. While Iraq has had steady reduction in total fertility rate (TFR) over the past three decades, the pace of the reduction has been nearly half that of the overall regional reduction rate in MENA, with Iraq holding a fertility rate of 3.8 births per woman, the highest in the region (Figure 31)[18]. Data from the 2011 and 2018 Iraq MICS surveys highlight large disparity in TFR across wealth and educational groups. In 2018, individuals who attained upper secondary education had nearly half the TFR of those who had received pre-primary education (Figure 32). TFR was highest in Muthana, Misan, and Diala, in 2018, with rates nearing 5 births per women, with increases seen since 2011.

Figure 31. **Total fertility rate of Iraq and comparator countries (1990 – 2018)**



SOURCE / World Bank World Development Indicators

Figure 32. **Total fertility rate in Iraq across governorates**



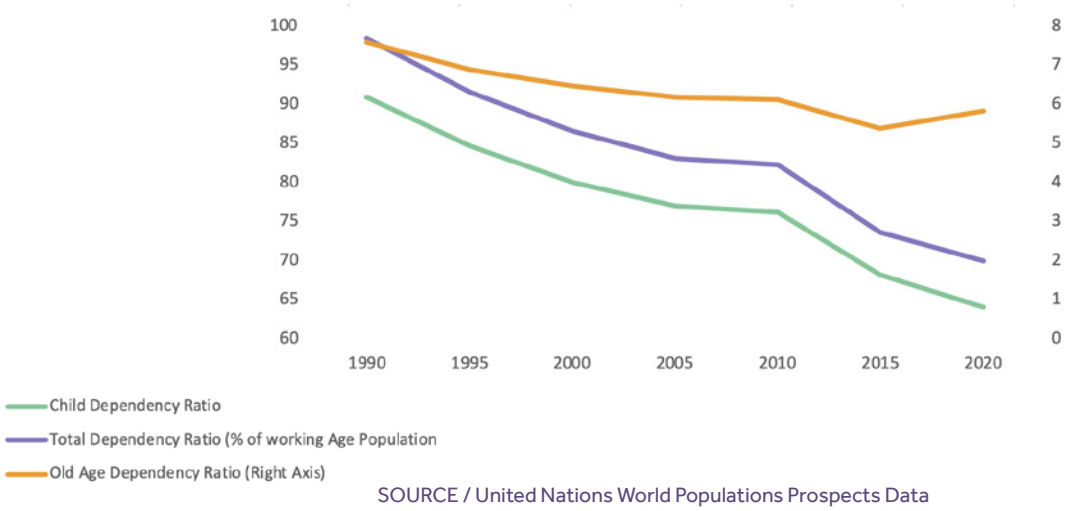
SOURCE / MICS 2011 and 2018

17. The Kurdistan region is an essential part of the Iraqi health system. Data limitations have hindered the ability of the PER to conduct thorough analysis of health provision within this region. Future analysis should address this gap by incorporating this data.

18. Fertility rate for 2019 is 3.9, as reported by the Ministry of Health.

Reductions in the birth rate of children and the crude death rate of adults have slowly shifted Iraq's demographic profile from mostly younger ages to a primarily working age. Old age dependency on the working population has decreased from 7 percent to 6 percent over the past three decades, with both child and total dependency ratios showing even greater improvement (around a 25 percent reduction) (Figure 33).[19] With a declining reduction in dependency ratios, it is possible for Iraq to reap the benefits of its demographic dividend, provided it is able to reduce its total fertility rate further, invest further in human capital accumulation, and implement conducive macroeconomic policies.

Figure 33. **Total, child, & old age dependency ratio estimates (1990 – 2020)**



SOURCE / United Nations World Populations Prospects Data

Iraq faces the added challenge of delivering care for a large number of internally displaced persons (IDPs). Iraq currently has 2.15 million IDPs due to the recent conflict, and 300,000 refugees mostly from Syria.[20] Studies have highlighted that repeated displacements are common in Iraq, each of which having an adverse effect on the livelihood of children and mothers. 71 percent of IDPs are in the Kurdistan region.[21] A study on outcomes for IDPs in Baghdad, Kirkuk, and Karbala, indicates that 7.9 percent of families reported death of a family member due to displacement, with 72.3 percent of said deaths being attributable to intentional violence.[22] While refugees and asylum seekers have access to free care at any Iraqi facility,[23] IDPs face particularly poor access to maternal and child health services. Furthermore, the health of IDPs is not addressed in a comprehensive, preventative manner. In addition, system access and utilization of IDPs have not been assessed.

Trends in Health Outcomes and Disease Burden

Over the past two decades, Iraq has witnessed some improvements in its health outcomes, despite the conflicts. The country, however, continues to underperform its peers. Figure 34 highlights the impact of the occupation from the early 2000s until 2012. Post-conflict results show that, generally, there has been improvement in life expectancy. In 2018, however, life expectancy at birth was just beginning to return to its estimate in 2000, at 70 years.[24] Continued conflict in the northern governorates of the country has led to large

19. United Nations (UN), Department of Economic and Social Affairs, "World Population Prospects 2019". https://population.un.org/wpp/, accessed April 20, 2020.

20. UNCHR, "UNHCR Population Statistics", http://popstats.unhcr.org/en/time_series, accessed: April 20, 2020.

21. UNCHR, "Iraq Refugee Crisis,"https://www.unrefugees.org/emergencies/iraq/#:~:text=As%20of%202019%2C%20almost%202,the%20Kurdistan%20Region%20of%20Iraq, accessed: April 20, 2020.

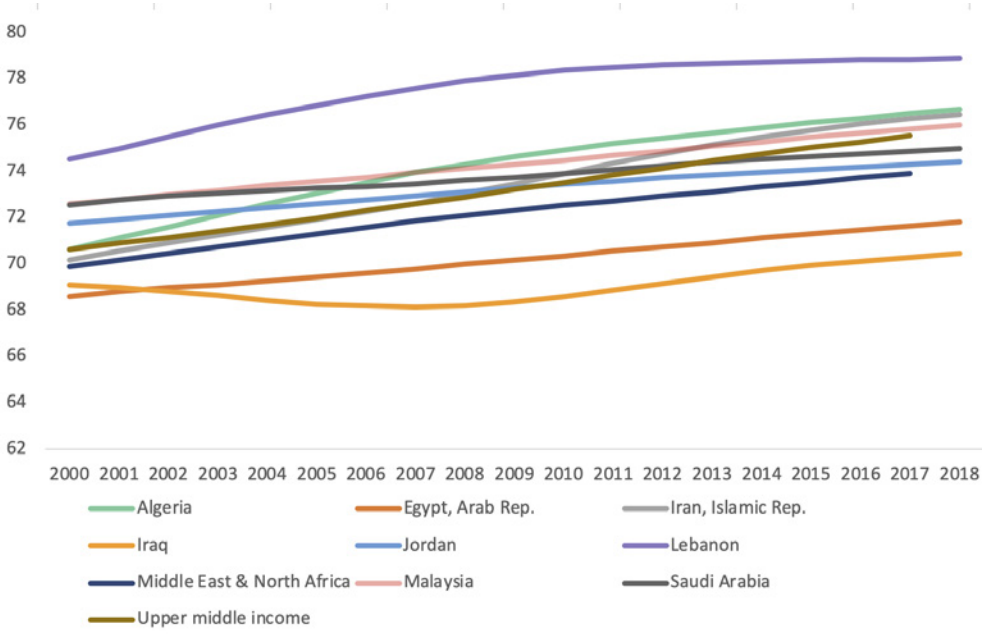
22. Nesreen A. Aflouk et al., "Needs of Internally Displaced Women and Children in Baghdad, Karbala, and Kirkuk, Iraq," *PLoS Currents* 8 (2016): PLoS Currents, 2016-06-10, Vol.8.

23. UNHCR, Help Iraq "Health Services," https://help.unhcr.org/iraq/en/rights-and-obligations/health-services/, accessed August 26, 2020.

24. Note that the reported used figures from the WDI. Life expectancy reported by the Ministry of Health for 2018 is 71.1 years.

amounts of displacement, an influx of refugees, and, consequently, a decrease in effects on life expectancy for both adults and children. Figure 35 demonstrates the inequality across governorates, in terms of life expectancy, with Kirkuk being the highest, at 77, and Al-Sulaimaniya and Duhouk being the lowest, at 70.

Figure 34. **Life expectancy at birth (2000 – 2018)**



SOURCE / World Bank World Development Indicators

Figure 35. **Life expectancy at birth by governorate in Iraq, 2018**

SOURCE / MOHE Annual Statistics Reports

Years of conflict have driven Iraq to perform poorly across most Universal Health Coverage (UHC) service coverage index indicators. Table 2 highlights Iraq's performance amongst its peers, by examining a number of key indicators crucial in achieving good health and well-being. Iraq also falls short amongst its peers in the prevention of avertable deaths due to NCDs, with 51 percent of occurring in individuals below the age of 70, and 21.3 percent occurring between the ages of 30 and 70. Effective treatment for tuberculosis (TB), in Iraq, also lags behind that of other countries, with TB effective coverage at 42 percent, even as it has an incidence rate above that of the MENA average. Regarding risk factors for NCD, Iraq has similar rates to the rest of the region, which already has fairly elevated rates of smoking and high blood pressure.

Table 2. **Overall health and universal health coverage index indicators for Iraq and comparator countries, 2017**

	Algeria	Egypt	Iran	Iraq	Jordan	Lebanon	Malaysia	Saudi Arabia
Life expectancy at birth	77	72	76	70	74	79	76	75
Maternal mortality (/100,000)	112	37	16	79	46	29	29	17
Under 5 mortality (/1,000)	23	21	14	27	16	7	8	7
NCD deaths under age 70 (% of all NCD deaths)	41	53	35	51	47	32	48	51
Mortality from CVD, cancer, diabetes or CRD between ages 30-70 (%)	14.2	27.7	14.8	21.3[25]	19.2	17.9	17.2	16.4
Total fertility rate	3.0	3.3	2.1	3.8[26]	2.8	2.1	2.0	2.3
Skilled birth attendance, %	97	92	99	96[27]	100	78	100	99
Family planning demand satisfied with modern methods, %	76	80	68.6	53.8[28]	58	61	53	45
Antenatal (ANC) care, 4+ visits, %	67	83	94.3	67.9	94.5	80.9	80	71
DTP3 vaccine coverage, %	91	95	99	84	96	83	99	96
Care-seeking for pneumonia, %	66	68	76	74	77	74	87	82
TB effective treatment, %	72	52	70	42	68	72	68	63
HIV treatment, %	81	31	20	43	84	60	48	54
At least basic sanitation, %	88	94	88	94	97	98	100	100
Normal blood pressure, %	75	75	80	75	79	79	77	77
Tobacco non-smoking, %	84.4	74.8	89	81	73	66.2	78.5	84.4
IHR core capacity index, %	72	93	85	91	97	76	99	99
UHC Index, WHO	78	68	72	61	76	73	73	74

SOURCE / WHO Tracking Universal Health Coverage, 2019

Iraq's low human capital index and poor health outcomes reflect the impact of the conflict and governance constraints. Table 2 highlights that Iraq has the lowest human capital index across peer countries, demonstrating that a child born in Iraq today will be only 40 percent as productive as they would have been had they benefited from full health and education. In Iraq, the probability of survival for children is slightly lower than that of comparator countries while the levels of stunting among children is much higher than that of other countries in the region that have lower levels of income. Adult survival in Iraq is also very low compared to other countries, a fact attributable to the mortality toll of conflicts, as well as a high and unmanaged non-communicable disease burden.

25. The figure reported by the Ministry of Health for Mortality from CVD, cancer, diabetes, or CRD between ages 30-70 in 2017 is 3.3 %.
26. Fertility rate reported by the Ministry of Health for 2019 is 3.9.
27. The figure reported by the Ministry of Health for Skilled birth attendance in 2017 is 93.7.
28. The figure reported by the Ministry of Health for family planning demand-satisfied with modern methods in 2017 is 56.2%.

Table 2 **Health components of the human capital index in Iraq and comparator countries** [29]

Country Name	Probability of Survival to Age 5	Fraction of Kids Under 5 Not Stunted	Adult Survival Rate	Human Capital Index	Ranking (/174 countries)
Iraq	0.97	0.87	0.84	0.41	143
Egypt	0.98	0.78	0.86	0.49	115
Lebanon	0.99	-	0.94	0.54	104
Algeria	0.98	0.88	0.91	0.52	98
Jordan	0.98	0.92	0.89	0.56	90
Saudi Arabia	0.99	-	0.91	0.58	84
Iran	0.99	0.93	0.92	0.59	75
Malaysia	0.99	0.79	0.88	0.62	62

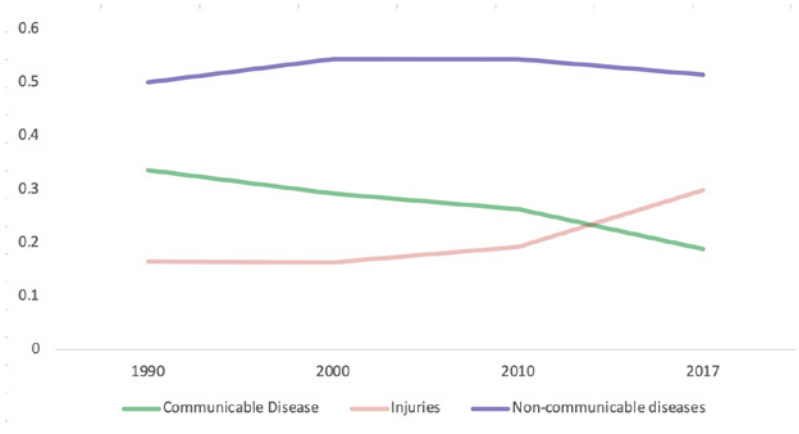
SOURCE / World Bank Human Capital Index, 2020

Over the past two decades, non-communicable diseases (NCDs) constituted about 50 percent of the overall disease burden, demonstrating Iraq's epidemiological transition. Approximately 1 in 8 deaths in 2019 can be attributed to Ischemic heart disease. The main remaining causes of deaths are also NCDs, including malignant neoplasms (9 percent), cerebrovascular disease (8 percent), and hypertensive diseases (7 percent) (Figure 2.6). The disease burden of NCDs is likely to keep rising, with demographic projections for Iraq indicating an aging population in the next decades. Furthermore, deaths and DALYs related to injuries have increased in the past years.

Figure 36. **Ranking of diseases by percentage of attributable deaths (2019), and changes in communicable, non-communicable diseases, and injuries**

Causes of death	Percentage
Ischemic heart disease	12%
Malignant neoplasms	9%
Cerebrovascular disease	8%
Hypertensive diseases	7%
Other forms of heart disease	6%
Renal failure	5%
Road traffic accident	5%
Diabetes mellitus	5%
Respiratory & cardiovascular disorders specific to the perinatal period	4%
Other bacterial diseases	3%
Total percentage of top ten causes of deaths	64%

SOURCE / Ministry of Health, 2019



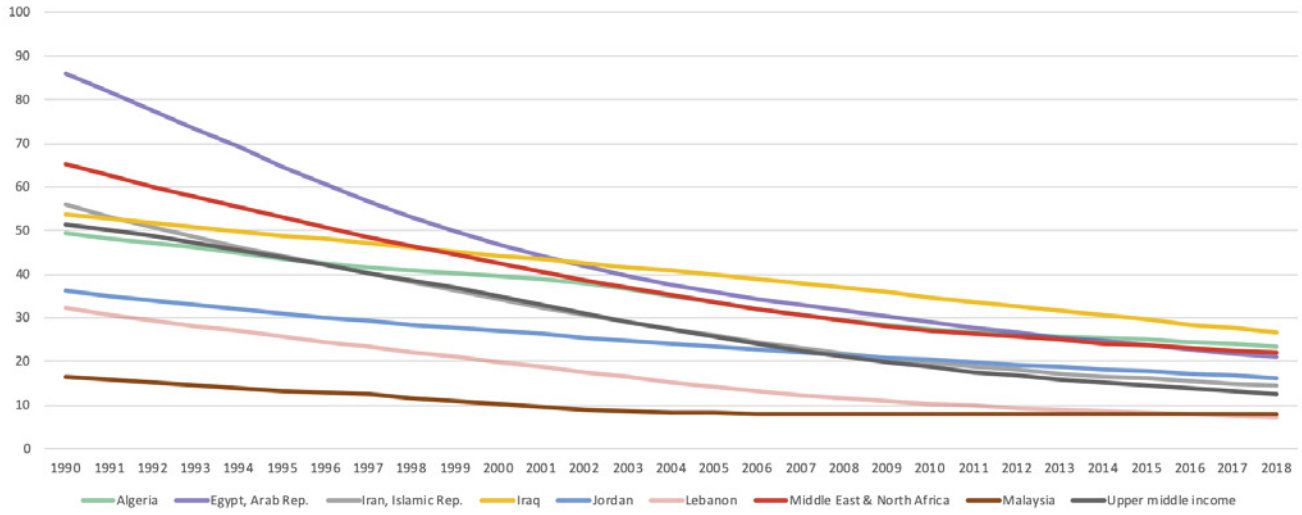
SOURCE / IHME Global Burden of Disease (2017)

29. This data is from the 2018 edition of Human Capital Index (HCI), which includes data on Iraq from 2011, hence the difference in the stunting rates between the HCI and the MICS data.

Child health

While under-5 mortality in Iraq has decreased over the past two decades, it is still twice as high as the average in upper-middle income countries. Figure 37 shows that deaths of children under 5 has nearly halved in the past two decades, but Iraq remains far behind its peers in MENA and other upper-middle income countries, even as it has approached the SDG target of 25/1,000. Armed conflict is known to have major effects not only on survival, but also on the overall health and well-being of children.[30] Conflict has been one of the drivers of the persistently high levels of under-5 mortality, as conflict can affect access to curative and preventative health services such as routine check-ups and immunization, proper nutrition, and access to proper sanitation. While overall child mortality in Iraq has remained mostly consistent from 2011 to 2018, further analysis shows that neonatal, infant, and under-five mortality rates have improved more significantly for those in urban areas and in higher wealth quintiles (according to an analysis of MICS 2018 data).

Figure 37. **Under-5 mortality rate of Iraq and comparator countries (2000 – 2018)**



SOURCE /World Bank World Development Indicators, 2020

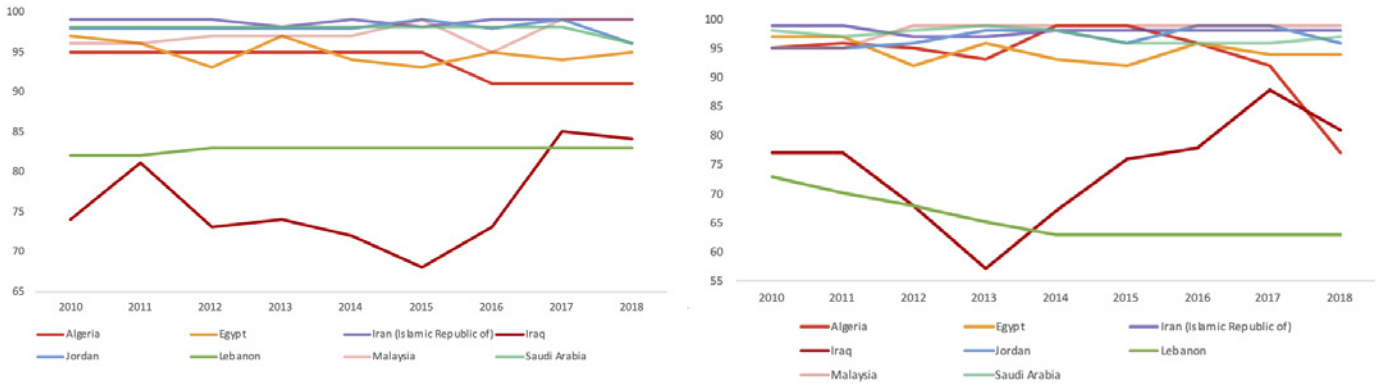
Nutritional outcomes for children in Iraq have seen great improvements over the past 8 years. The poorest quintiles, however, lag behind. Across all governorates and different socioeconomic groups, the prevalence rates for children being severely underweight, overweight, or stunted have drastically improved over the past 8 years. However, inequities remain, with the lowest wealth quintiles having twice the rate of stunting and severely underweight children. MICS 2018 data demonstrate that the percentage of severely underweight children declined from 4 percent to 1 percent, and that of severely stunted children declined from 10 percent to 3 percent between 2011-2018. [31]

Immunization rates in Iraq for key illnesses have been maintained despite conflicts in the country. However, they remain significantly lower than the rates of peer countries. Figure 38 shows immunization rates for DPT3 and MCV2 in Iraq and comparator countries, from 2010 to 2018. In 2018, DPT3 coverage was at 84 percent and MCV2 coverage at 81 percent. It is clear that the conflict has had a large impact on immunization rates, with increases in coverage only occurring in the past few years. Although there has been an increase in immunization rates over the past few years, the 2018 immunization rates for both DPT3 and MCV2 are essentially at the levels they were at in 2011, showing that there have been no significant improvements in vaccine coverage for children in Iraq, in almost a decade. Vaccination rates in Iraq, which, as highlighted, are lower than in peer countries, are a significant contributor to under-5 mortality.

30. Ayesha Kadir, Sherry Shenoda, and Jeffrey Goldhagen, "Effects of Armed Conflict on Child Health and Development: A Systematic Review," *PloS One* 14, no. 1 (2019): E0210071.

31. Severe wasting and stunting are defined as having height-for-age and weight-for-age scores that are three standard deviations below average.

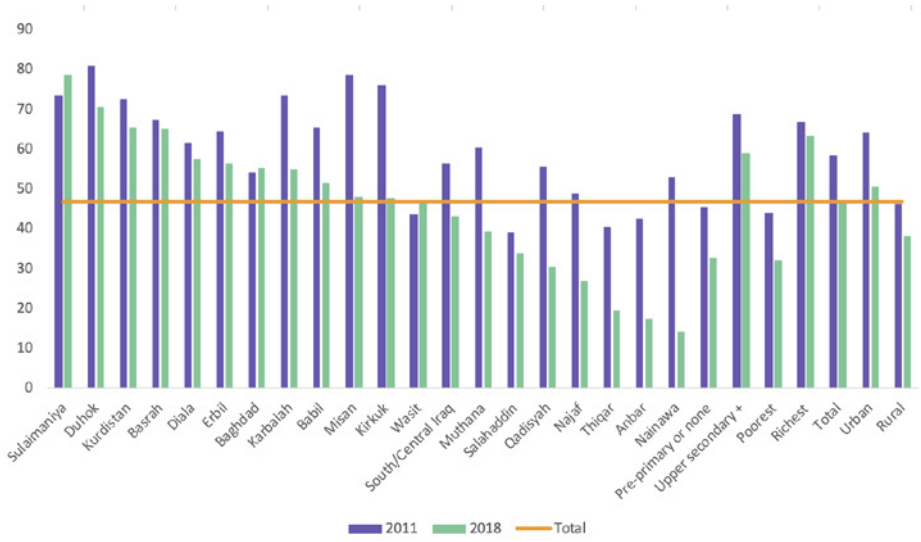
Figure 38. **DPT3 coverage (as %, left) and MCV2 coverage (as %, right) for Iraq and comparator countries (2010 – 2018)**



SOURCE / WHO-UNICEF Estimates of National Immunization Coverage (WUENIC)

Immunization rates in Iraq vary across governorates and socioeconomic status. As is the case in many countries, survey data reports lower rates than administrative data. Figure 39 demonstrates the percent of children receiving full immunization, which decreased from 58 percent in 2011, to 47 percent in 2018.[32] These declines were also seen with DPT3 (down from 70 percent to 69 percent), as well as measles (down from 75 percent to 71 percent). Sulaimaniya, Duhok, and Basrah had the largest full immunization rates, and Anbar and Ninawa had the lowest rates, demonstrating the impact of the recent conflict. The poorest quintile had a rate of 32 percent, whereas the richest quintile had a full immunization rate of twice that, at 63 percent, demonstrating the inequality of immunization coverage. Similar trends were seen with the DPT3 and measles vaccinations.

Figure 39. **Percent of children receiving full immunization**



SOURCE / MICS 2011/2018

Maternal health

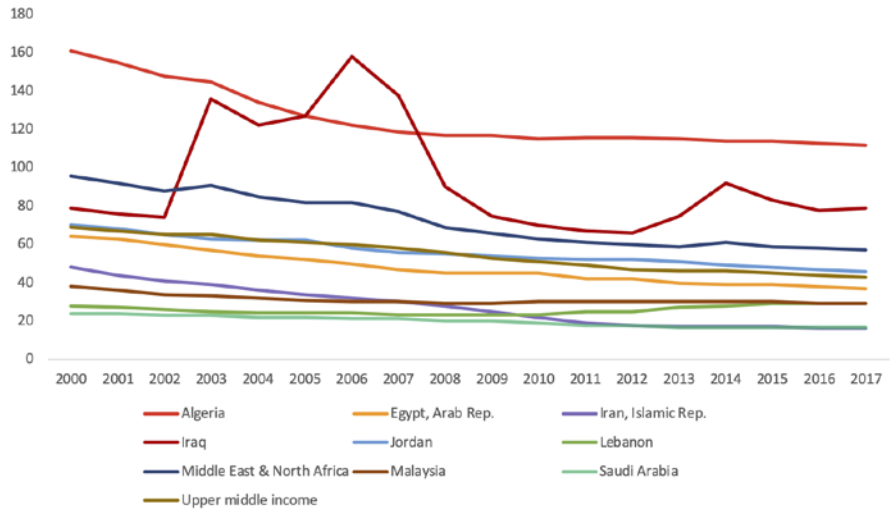
A high maternal mortality rate has persisted over the past two decades, reflecting the visible impact of conflicts. A large impact on care-seeking indicators related to maternal mortality has been attributed to conflict in Iraq.[33] Figure 40 highlights the significant impact that peak conflict during 2002 to 2007 had on maternal mortality. The rate of maternal mortality in Iraq is higher than all comparator countries, except for Algeria. The conflict has

32. Full immunization is defined differently in 2011 and 2018, given changes in the vaccine schedule. The 2011 data includes BCG, DPT3, polio 1-3, and measles by 12 months of age. 2018 data includes all of these as well as Hib, pneumococcal, rotavirus, and rubella vaccines.

33. Paul C. Webster, "Roots of Iraq's Maternal and Child Health Crisis Run Deep," *The Lancet (British Edition)* 381, no. 9870 (2013): 891-94.

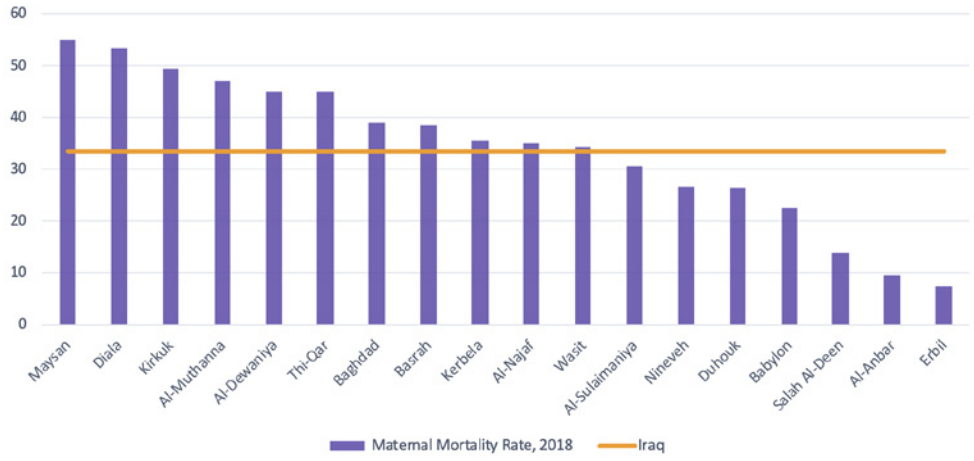
impacted the ability of mothers to seek adequate, timely, and quality care for themselves and their children, leading to a higher prevalence of complications for both and ensuant high levels of mortality for mothers due to complications at birth. The conflict also depressed the capacity of the health system to respond to emergencies in a timely manner. There is a significant discrepancy between the modeled estimates from the World Development Indicators (79/100,000 live births) and the government's official figures: notably, the national rate according to the MOHE is at 31/100,000, or less than half of what is modeled. Figure 41 demonstrates the variation across governorates with regards to the maternal mortality ratio, with the highest rates in the Maysan, Diala, and Kirkuk governorates, at about 7 times the rates seen in the governorates with the lowest rates, such as Al-Anbar and Erbil. Iraq's maternal mortality ratio also remains above the SDG goal of 70 per 100,000 live births.

Figure 40. **Maternal mortality ratio (per 100,000 live births) in Iraq and comparator countries, 2000-2017**



SOURCE / World Bank World Development Indicators, 2020

Figure 41. **Maternal mortality ratio by governorate, 2018**



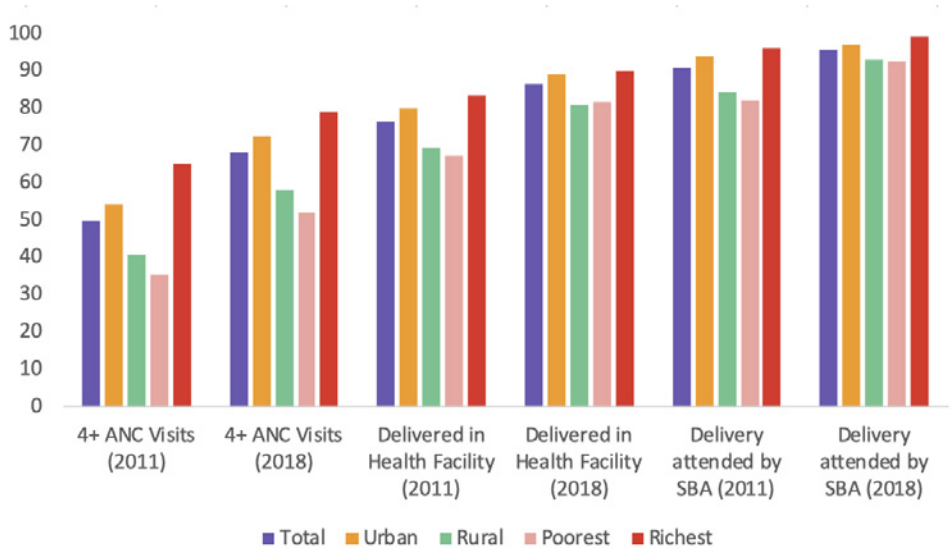
SOURCE / Ministry of Health, 2018

Health outcomes related to fertility, early childbirth, and family planning outcomes also show large regional inequalities. According to MICS data, over the past 8 years, the percentage of women who had a child before the age of 18 has increased by 2 percentage points in total and 5 percentage points among the poorest mothers, and remained the same among the richest mothers in Iraq. Mothers in the lowest income quintile in Iraq are three times as likely to give birth before the age of 18 as those in the highest income quintile. The disparity becomes even more drastic between the educational level of mothers, with those who received less than primary education being more than 10 times as likely to report early childbirth than those with post-secondary education. Further, certain governorates such as Thiqar, Babil, Nainawa, Diala, and Karbalah have had large increases in the prevalence of early childbirth.

Demand for and utilization of family planning services is relatively low and inequitable among married women in Iraq. In 2018, demand for family planning services among married women (both for spacing and limiting births) was 66 percent and was fairly uniform across governorates, except for high demand in Sulaymaniyah and Erbil.[34] Demand for family planning was also relatively consistent across wealth quintiles and education levels. Even with relatively low demand for family planning services, only a little over half of married women in Iraq had their needs for family planning met. This level of unmet need has also remained consistent over the past 8 years, at 47 percent. Equity in met need for contraception has increased slightly, but still favors the richest and most highly educated socioeconomic groups. Both relatively low demand for and high unmet need for family planning services have led to continued low rates of utilization. Over the past 8 years, utilization of modern family planning methods has increased by only 2 percent in Iraq, with the majority of this utilization occurring among the poorest women. Modern family planning service utilization seems to have experienced a shift in equity from being pro-rich to pro-poor. The main drivers of this shift have been increased utilization among poor married women and a dramatic decrease in utilization among the wealthiest married women over the past 8 years. [35]

Care-seeking for antenatal care (ANC) services and in-facility deliveries, as well as the content and quality for ANC visits, have improved in Iraq over the past 8 years; however, inequalities remain. Figure 42 highlights that the percentage of women reporting that they had received at least 4 ANC visits during their most recent pregnancy has increased from 50 percent in 2011 to 68 percent in 2018—a figure that is still too low. Equity around ANC care-seeking has improved, but care-seeking is still significantly higher among those who are wealthy, well-educated, and live in urban areas. In particular, women in the poorest quintile in Iraq were only 66 percent as likely to receive 4 or more ANC visits during their last pregnancy, compared to those in the richest quintile, with similar disparity arising when comparisons are made between women with low and high levels of education. Health facility delivery coverage was higher, with skilled birth attendance having gone up from 91 percent to 96 percent, with a more equitable distribution than ANC. Notably, skilled delivery attendance has improved from 82 percent in 2011 to 93 percent in 2018 for the poorest quintile, helping close coverage gaps. Similar gains have been made in improving the quality and content of ANC visits, where the share of women receiving them has gone up from 65 percent to 80 percent, as defined by visits including blood pressure measurement and the analysis of urine and blood samples. Poor women in 2018 had a 25 percent chance of having received all three elements measured during their ANC visit.[36]

Figure 42. **ANC and delivery care-seeking prevalence and content (2011-2018)**



SOURCE / MICS, 2018

34. MICS, 2018.
35. MICS, 2018.
36. MICS, 2018.

Non-communicable diseases

Non-communicable diseases (NCD) constitute a significant burden of disease in Iraq, and risk factors have not improved over the past decade. According to the 2015 STEPwise survey (World Health Organization STEPwise approach to chronic disease risk factor surveillance)[37], which is the most recent data source on NCD prevalence in Iraq, there is a high prevalence of risk factors pertaining to NCDs. As highlighted in the disease burden section, NCDs are a significant driver of the burden of disease in Iraq, and the prevalence of risk factors and NCD remains high: 21 percent of the population used tobacco; 14 percent of the population had diabetes; 35.6 percent of the population had high blood pressure; 65 percent were overweight or obese; and 39.6 percent had cholesterol. There have been slight declines in tobacco use, high blood pressure, and cholesterol, compared to 2006; however, for hyperglycemia and overweight/obesity, there have been increases. According to the survey, around 25 percent of hypertension and diabetes cases were first diagnosed at primary health centers. Tobacco use, high blood pressure, and diabetes were more common among men, whereas obesity was more common among women. Furthermore, for those with NCD, access to quality care has been a significant problem, contributing to poor health outcomes. Only 54 percent of hypertensives were on treatment, and of those with treatment, only 8 percent had controlled high blood pressure, highlighting barriers in access and retention. Similarly, only 15 percent of diabetics were on treatment.

While recent data is lacking, multiple surveys indicate that the majority of NCD cases were managed in private facilities, leaving households vulnerable to high out of pocket spending. According to the IHSES of 2006 and 2012, 12 percent and 14 percent of the population, respectively, had a chronic condition that they sought care for at a health facility. Of those with a chronic condition, 46 percent sought care in a private clinic level in 2006, a rate that increased to 63 percent in 2012. Those in urban areas and richer income quintiles used the private sector more frequently.

2.2 Health system capacity

This section provides an analysis of the Iraqi health system across service delivery, infrastructure, human resources for health, supply chains, and governance. It primarily relies on data from the MOHE statistics reports from 2012-2018. These indicators, for the most part, do not include private sector data, as there is no centralized reporting system from the private sector. As such, it should be noted that this analysis focuses primarily on the public sector and omits the private sector, even as the latter delivers a significant share of services in the country. In addition, the government data does not necessarily reflect the damage the recent conflict has imposed on the health system. To address this issue, data from another assessment has been included to present the extent of damage in the health sector. [38]

Service delivery context and governance

Service delivery in Iraq is organized across the primary, secondary, and tertiary levels of care, and stewardship function is assumed by the (MOHE) as well as governorates, even though MOHE has limited oversight over the private sector. Provision of primary, secondary, and tertiary healthcare in Iraq is supervised by the MOHE (which oversees 16 regional health directorates, in addition to the medical city) and Kurdistan Regional Ministry of Health (which supervises 3 regional health directorates) (Figure 43).[39] The primary care level aims to ensure comprehensive care, ranging from promotion and prevention to treatment, rehabilitation, and palliative care. Primary care also acts as the gatekeeper to higher levels of care on account of the referral system: patients need a referral authorization in order to be able to seek services directly at hospitals, even though this is not

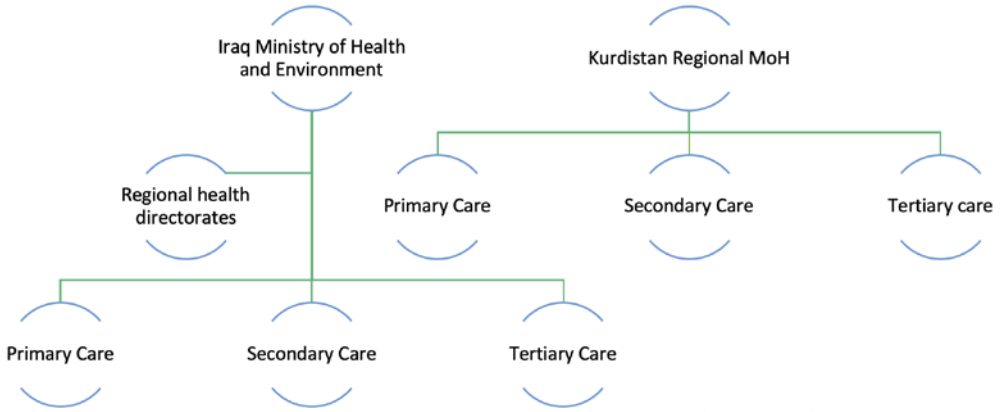
37. Iraqi Ministry of Health and World Health Organization, "Noncommunicable Diseases Risk Factors STEPS Survey Iraq 2015."

38. Due to data restrictions, this chapter primarily relies on information from the Republic of Iraq and excludes most data from the Kurdistan Regional Government.

39. Ministry of Health and Environment, 2020. https://moh.gov.iq/.

always adhered to. Primary care in Iraq is provided via two types of primary health care centers (PHCs): main healthcare centers typically located in larger cities, serving a population of at least 10,000; and health sub-centers typically located in urban peripheries and rural areas, serving 3,000 to 10,000 people. Services provided by these centers differ, with sub-centers only delivering ANC care, vaccinations, and basic curative services, and main health centers delivering said services as well as neonatal and child health, TB, mental health, NCD, family planning, lab services, and dental and emergency services in certain contexts. Latest figures indicate that there are 1,455 heath sub-centers and 1,353 main health centers in Iraq.[40] Secondary care is medical care provided by a specialist or facility (typically hospital) and tertiary care is specialized consultative health care, usually for inpatients and based on referral from a primary or secondary health professional. In Iraq, the secondary public health sector is composed of 161 general hospitals and 88 specialized hospitals/centers, and the tertiary level is composed of 32 tertiary level hospitals (Table 3).[41] In addition, the public sector is also mandated to provide the majority of public health functions, particularly those pertaining to disease surveillance.

Figure 43. **Provision of health services governance in Iraq**



SOURCE / Key informant interviews, 2020

While curative primary care is provided predominantly by the private sector, regulation and governance arrangements remains weak. Ministry of Health and Environment (MOHE) is the overall steward of the health sector, and also provides health services. The public sector provides all public health functions (e.g. preventive interventions, vaccinations, maternal health) and is also the main provider of health services in Iraq in the tertiary level. However, an overwhelming majority of primary clinics are private clinics (more specific data on utilization at these clinics is scarce) (Table 3). Service provision in the private sector is limited to primary care services, elective surgical procedures, and obstetrics and gynecology services, whereas more specialized services are offered exclusively at public hospitals. Private primary care clinics focus on curative care provision through prescription of medicine or referral to surgical intervention in private hospitals, particularly for NCDs. Preventive services such as vaccination, screening programs, health education, and health promotion are conducted by public sector PHCs. In a similar fashion, private hospitals typically do not provide emergency services (because of security reasons in conflict settings) and lack cost-heavy services such as neonatal care and services that require long inpatient stays. Private hospitals are particularly concentrated in urban areas: of the 135 private hospitals, 47 are in Baghdad, 24 in Erbil, and 18 in Sulaimaniyah. With the adoption of "the private sector facilities federal law number 25" in 2015, establishing private health facilities has become easier and the number of private hospitals has increased faster than the number of public hospitals, with limited oversight despite legislation. There are various examples of public-private partnerships to facilitate coordination, such as a private hospital offering government-subsidized dialysis care in Baghdad, and a governmental cardiology center in Erbil subsidizing service provision by private sector health workers. However, despite these efforts, the private sector is not regulated and engaged, in an effective way, in service delivery: there are no licensing, accreditation, or contracting arrangements with any type of private facility. As a result, quality assurance and

40. Ministry of Health and Environment. Annual Statistics Report, 2019.
41. Ministry of Health and Environment. Annual Statistics Report, 2018.

cost controls are lacking at private facilities, resulting in both inequity and inefficiency. The upcoming launch of social health insurance is expected to involve private providers in a more direct way than before, formalizing accreditation and contracting arrangements.

Table 3 **Health service capacity across levels and providers, 2018**

Causes of death	MOHE	Private sector (for-profit)
PHC main centers	1,455	4,001[42]
PHC sub-centers	1,353	0
Secondary hospitals	161	135
Tertiary (specialty) hospitals	120	0
Total bed capacity	37,482	5,300
Laboratories	1,864	9,155
Ambulances	1,728	0
Pharmacies	3,046	9,155
Blood banks	20	0
Medical colleges	27	1
General practitioners	34,807	4,001
Specialists	13,112	No data available
Dentists	11,997	3,683
Pharmacists	12,552	9,155
Nurses	78,588	No data available
Paramedical staff	73,876	No data available
Lab staff	10,812	No data available
Midwives	4,400	1,244

SOURCE / MOHE government reports, World Health Organization, 2018

Strong health information systems (HIS) form the backbone of effective health sector governance, and while progress has been made, a recent assessment demonstrates that the Iraqi HIS is still missing key components. While Iraq has a relatively strong vital registration system, and progress has been made in recording cause of death data, there are significant gaps with regards to the implementation of a national HIS, including the lack of a costed national health information system policy, lack of data reviews, lack of usage of web-based systems such as DHIS-2, and weak institutional collaboration between MOHE and regional authorities.[43]

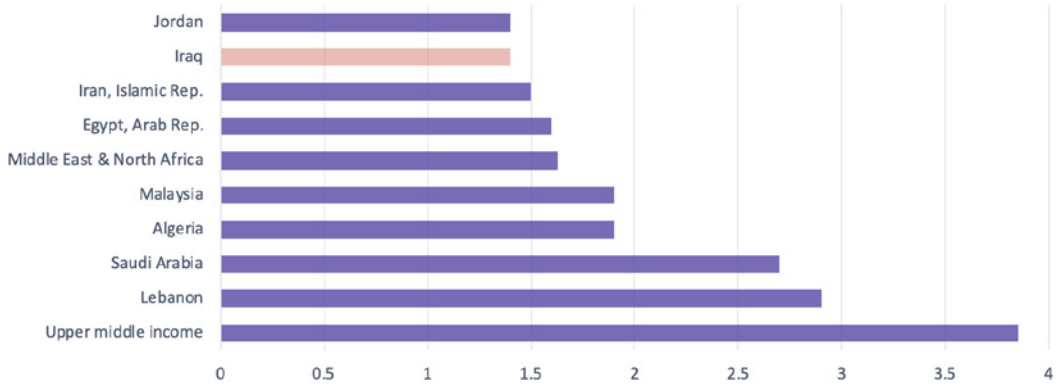
Physical resources and supply chains

Iraq has low physical resource capacity, as measured by the number of beds per 1,000 population. Despite recent increases, particularly in the private sector, the number of hospital beds in Iraq per 1,000 population remains the lowest across comparators at 1.4 beds per 1,000 people, which is also significantly lower than the upper-middle income average of 3.8 beds per 1,000 people (Figure 44).

42. There is no data available in terms of the repartition of private outpatient clinics, and the figure includes the total number of private clinics that are registered.

43. Iraqi Ministry of Health and WHO Regional Office for the Eastern Mediterranean, "Comprehensive Assessment of Health Information System: Iraq, 2019".

Figure 44. **Hospital beds per 1,000 in Iraq and comparator countries, latest available year**



SOURCE / World Bank World Development Indicators, 2020

Data from the MOHE points to stable health infrastructure availability per capita rates over the past decade; however, there are large disparities across governorates. Data collected from the MOHE annual reports shows that the availability of total health facilities (including health centers, PHCs, and Hospitals) has remained fairly stable at an average of 7.29 per 100,000 population, since 2012, and averaged 8.3 in 2018. Availability of hospitals averaged 1.03 per 100,000 population, with little fluctuation between 2012 and 2018 (Figure 45).

Figure 45. **Health facilities, PHCs, and hospitals per 100,000, 2012-2018 and by governorate, 2018**

SOURCE / MOHE statistics reports, 2012 - 2018

The recent conflict with ISIS has taken its toll on health infrastructure in both the public and private sector, constraining service delivery particularly in four governorates. Iraq's latest World Bank Damage and Needs Assessment (DNA), covering the most significantly impacted governorates of Al-Anbar, Diala, Salah Al-Deen, and Nineveh estimates that more than 50 percent of the health facilities assessed in 2018 were damaged, 30 percent of which were completely destroyed (Table 4).[44] The cost of reconstruction of the damages incurred

44. World Bank Group, "Iraq Reconstruction and Investment.: Damage and Needs Assessment of Affected Governorates, (Washington, DC.: World Bank, 2018), https://openknowledge.worldbank.org/handle/10986/29438.

was estimated at IQD 2.7 trillion (US$ 2.3 billion). Furthermore, WHO's latest situation report indicates that, in November 2019, approximately 170 health facilities remain damaged (48 fully destroyed and 122 partially damaged).[45] Literature on damaged health infrastructure is consistent with local media coverage of healthcare access in Iraq.[46] Since the conflict, various international organizations such as the World Bank Emergency Operation for Development (EODP) have provided additional financing. Moreover, Kuwait and Germany provided loans intended to expand hospital capacity.

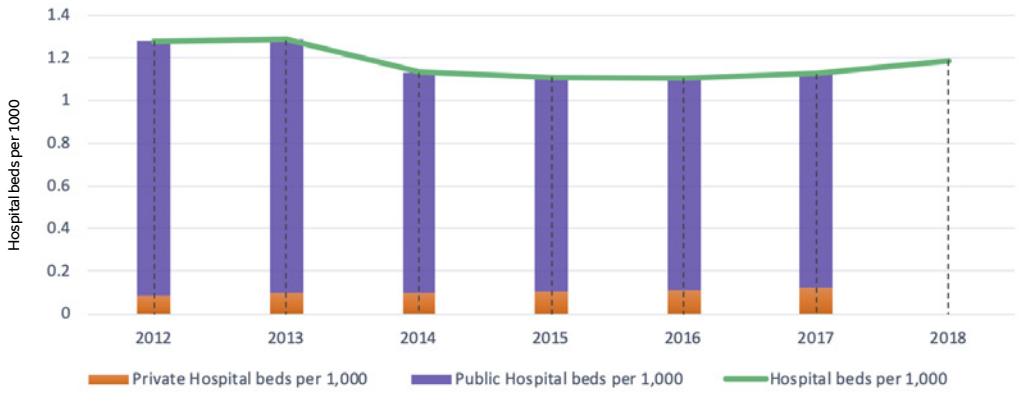
Table 4. **Damage inventory, DNA- Al-Anbar, Diala, Salah Al-Deen, and Nineveh**[47]

Asset Types	Baseline	Total damaged	Partially damaged	Completely destroyed
Hospital	56	43	24	19
Health Center	97	42	35	7
Health Office	3	2	2	0
Total	156	87	61	26

SOURCE / World Bank. 2018. Iraq Damage and Needs Assessment of Affected Governorates

The availability of hospital beds per 1,000 persons has remained relatively stable over the past decade, with a low bed occupancy ratio and a high concentration in the public sector. In between 2013 and 2016, availability of hospital beds decreased from 1.28 to 1.11 per 1,000, before recovering to 1.18 in 2018 (Figure 46). The minor drop in availability of hospital beds is mostly seen in public hospitals where the rates fell from 1.19 per 1,000 to 1.01 per 1,000, between 2013 and 2016.[48] In contrast, availability of private hospital beds hovered around 0.1 per 1,000 over that same period. The decrease in available hospital beds could be due to the recorded damages to health facility infrastructure incurred during the conflict. Data on bed occupancy ratios also narrates a similar story, with bed occupancy ratios hovering between 50 and 60 percent and experiencing particular increases in years with conflict. Due to data limitations, it was not possible to identify the underlying causes of low bed occupancy. As Figure 47 demonstrates, hospital bed capacity is highest in the public sector, and the governorates with the highest private hospital bed capacity are Erbil, Duhouk, Baghdad, and Karbala.

Figure 46. **Hospital beds per 1,000 and bed occupancy ratio, 2012 - 2018**



45. World Health Organization, "Situation Report 01 September – 31 November 2019, Iraq Humanitarian Emergency". http://applications.emro.who.int/docs/IRQ/IRQ-SitRep-Sep-Nov-2019-eng.pdf?ua=1

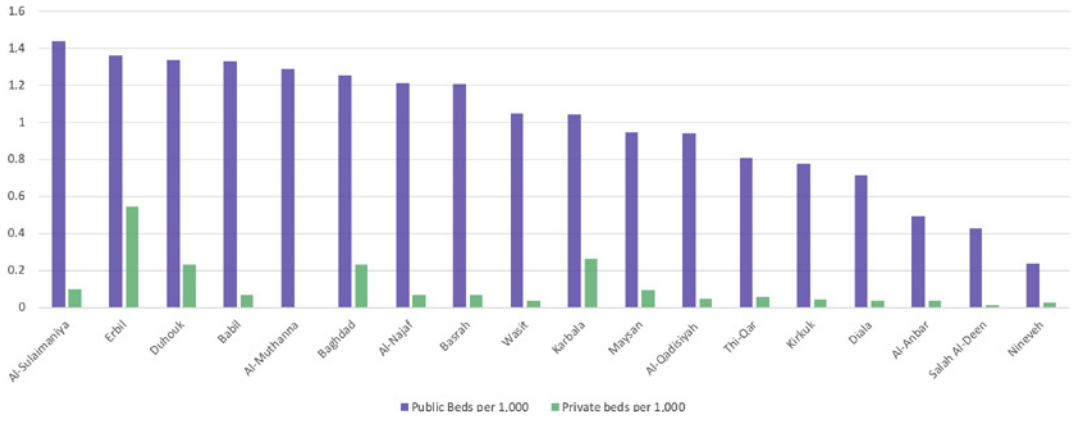
46. 2018) مستشفيات العراق.. واقع أليم ونقص في الكوادر الطبية). https://albasaernewspaper.com/news-reports/39790.

47. World Bank Group, *Iraq Reconstruction and Investment: Damage and Needs Assessment of Affected Governorates* (Washington, DC.: World Bank, 2018), https://openknowledge.worldbank.org/handle/10986/29438.

48. The figures are based on World Bank calculations. Hospital beds per 1,000 reported by MOHE for 2013 and 2016 are 1.3 and 1.2, respectively.

SOURCE / MOHE statistics reports, 2012 – 2018

Figure 47. **Hospital beds per 1,000 across the public and private sector, 2018**



SOURCE / MOHE statistics reports, 2012 – 2018

There are noteworthy differences in the availability of hospital beds across Iraq's governorates. Availability of hospital beds is highest in Al-Sulaimaniya, Baghdad, and Al-Muthana governorates (1.52, 1.50, and 1.49 per 1,000 respectively) and is lowest in Salah Al-Deen, Al-Anbar, and Nineveh governorates (0.77, 0.62, and 0.42, respectively); these governorates, as noted above, have also been the most negatively impacted by the conflict. Bed occupancy ratios also vary significantly across governorates, with a bed occupancy ratio of 67.5 percent in Erbil and one of 41.8 percent in Al-Muthanna (Figure 48).

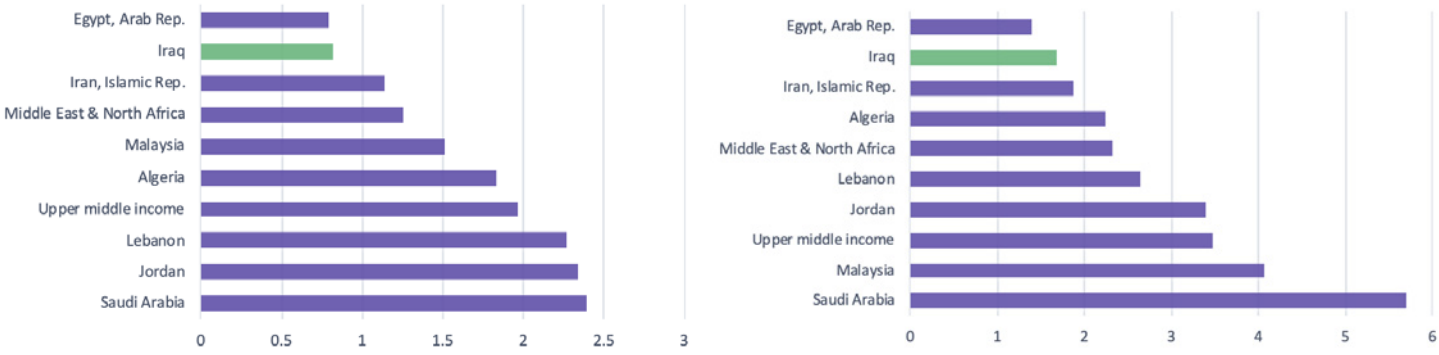
Figure 48. **Hospital beds per 1,000 and bed occupancy ratio by governorate, 2018**

Supply chains and essential medicines suffer from significant interruptions. While data is not fully available, key informant interviews indicate that the central MOHE procurement was historically very effective at ensuring continuing supply of drugs and equipment, but it has been facing significant problems since 2003, with half of essential medicines stocked out in 2018. Given the high overreliance on imports, and a lack of quality control mechanisms, the safety of procurement is also at significant risk. It is crucial to further study drugs and supply chains, given their significant share in public spending.

Human resources for health

Availability of human resources for health per capita is low compared to peer countries. In 2017, Iraq had 0.82 physicians per 1,000 persons,[49] which was less than half of the upper-middle income average of 1.97, as well as below all comparator countries, with the exception of Egypt. While annual data on the World Development Indicators is not available, a decline was seen since 2014. Similarly, Iraq's 1.68 nurses and midwives per 1,000 people is also the lowest, excepting Egypt, and is less than half that of the upper-middle income average of 3.48 (Figure 49)[50]. Since 2017, there has been an increase in the recruitment of health workers, an occurrence not reflected in these figures.

Figure 49. **Physicians per 1,000 (left) and nurses and midwives per 1,000 (right) in Iraq and comparator countries, latest available year**

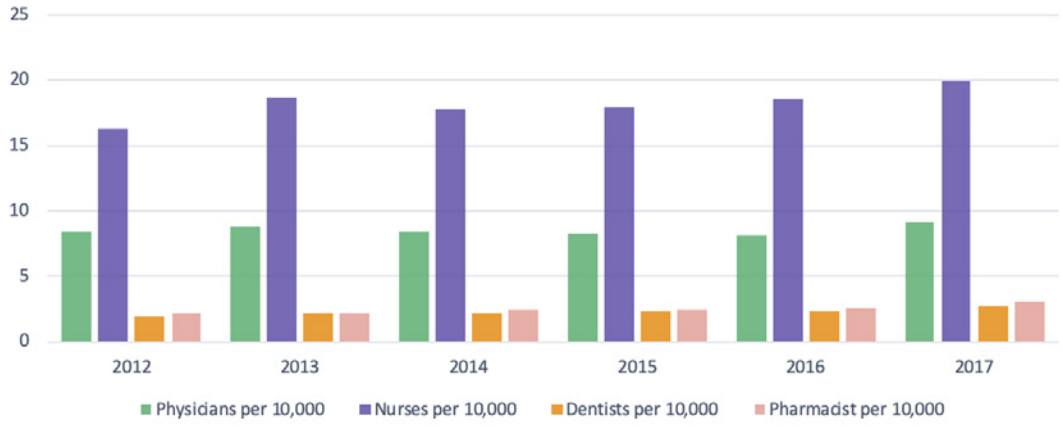


SOURCE / World Bank World Development Indicators, 2020

Data from the MOHE points to a steadily increasing supply of human resources for health (HRH) over the last years. Rates per 10,000 of physicians, nurses, dentists, and pharmacists between 2012 and 2017 show increases of 8.9 percent , 22.4 percent, 39.6 percent, and 44.3 percent, respectively, even as rates have fluctuated year-on-year (Figure 50). The rates vary significantly by governorate, with Baghdad having the highest rates of human resources for health and Al-Muthanna the lowest. The imbalanced distribution of human resources for health is also seen in the percentage of primary health care centers (PHC) attended by physicians as opposed to other health professionals. In Baghdad, 92 percent of PHC are attended by a physician, whereas in Al-Muthanna only 3 percent of PHC are attended by a physician, demonstrating a potentially important quality of care bottleneck. This is attributable to an overall reduction in the number of doctors due to conflict, as discussed in the following section, as well as a lack of incentives for medical workers to be employed in rural areas.

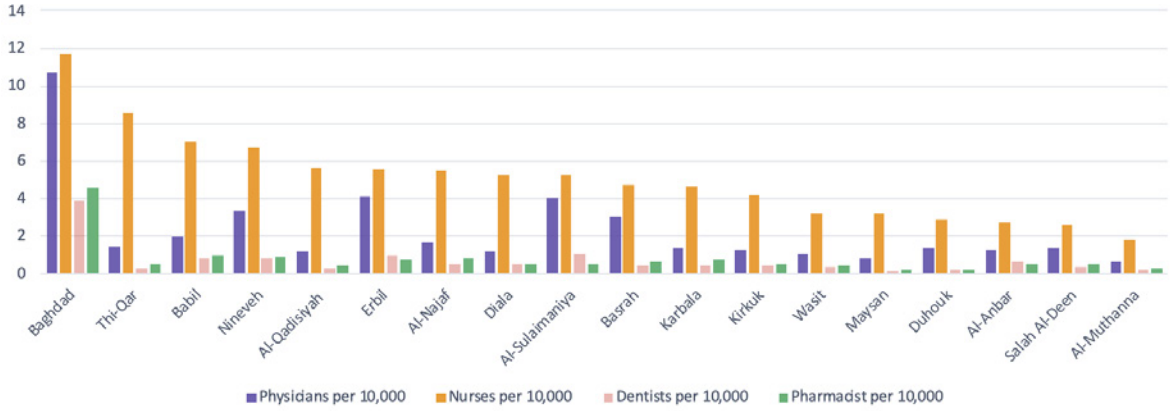
49. This figure is based on World Bank calculations. Physicians per 1,000, as reported by MOHE for 2017, is 0.94.
50. This figure is based on World Bank calculations. Nurses and midwives per 1,000, a reported by MOHE for 2017, is 1.76.

Figure 50. **Human resources for health per 10,000, 2012-2017**



SOURCE / MOHE statistics reports, 2012 - 2018

Figure 51.: **Human resources for health per 10,000 by governorate, 2018**



SOURCE / MOHE statistics reports, 2012 – 2018

Availability, quality, and governance of human resources for health is a significant bottleneck to effective service delivery. Over the past two decades, the health workforce has suffered external and internal migration—an impact of the conflict. Although the exact number of health workers that have left Iraq is currently unavailable, literature suggests that the conflict has driven many essential health workers to seek opportunities in other countries. During the 2003 conflict, Iraq experienced a 50 percent reduction in its medical workforce,[51] and, following the more recent conflicts, further health workers were lost as a result of the direct impact of wars or due to emigration. Al-Anbar and Salah Al-Deen, two of the governorates with the lowest HRH capacity, were also significantly impacted by the recent conflicts. Surveys of Iraqi physicians indicate that 50 percent of those who left the country did so for security reasons, while more than half of those remaining were seeking alternative employment or planning to leave the country soon, often citing similar concerns for their safety.[52] Further, while many Iraqi doctors have emigrated to other countries, many others migrated, within Iraq, to less conflict-affected governorates, exacerbating already existing shortages in regions with high demand for healthcare.[53] The conflict

51. Leonard S. Rubenstein and Melanie D. Bittle, "Responsibility for Protection of Medical Workers and Facilities in Armed Conflict," *Lancet* 375 (9711) (2010): 329–40... 2010;375:329–340. doi: 10.1016/S0140-6736(09)61926-7; Gilbert Burnham et al., "Understanding the Impact of Conflict on Health Services in Iraq: Information from 401 Iraqi Refugee Doctors in Jordan" *The International Journal of Health Planning and Management* 27, no. 1 (2012): E51-64. 2012;27:e51–e64. doi: 10.1002/hpm.1091.

52. Nabil Al-Khalisi, "The Iraqi Medical Brain Drain: A Cross-Sectional Study," *International Journal of Health Services* 43, no. 2 (2013): 363-78; Ali Jadoo et al., "Job Satisfaction and Turnover Intention among Iraqi Doctors--a Descriptive Cross-sectional Multicentre Study,. *Human Resources for Health* 13, no. 1 (2015): 21.

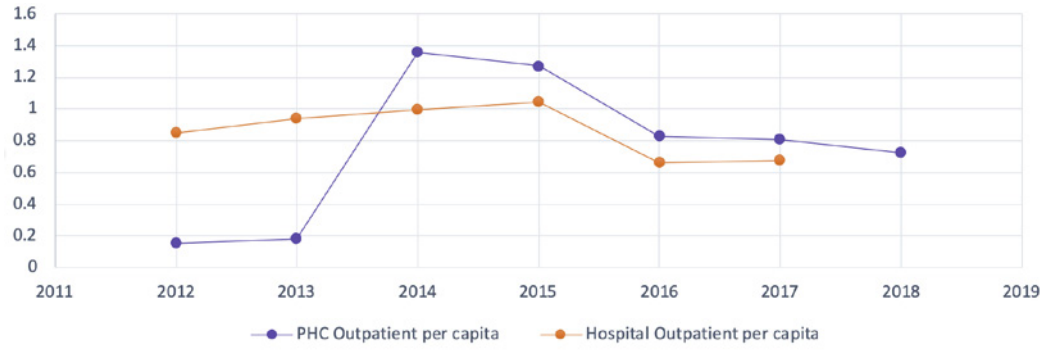
53. Gilbert M Burnham, Riyadh Lafta, and Shannon Doocy, "Doctors Leaving 12 Tertiary Hospitals in Iraq, 2004–2007," *Social Science & Medicine* (1982) 69, no. 2 (2009): 172-77. doi: 10.1016/j.socscimed.2009.05.021

has also impacted the number of teaching faculty at medical schools, suggesting that training output will not be able to keep up with increased demand for the foreseeable future unless significant investments are undertaken to improve medical workforce training capacity[54]. The level of availability of HRH is further diminished by the high prevalence of dual practice: while data does not exist on this issue, many health workers work in the private sector to supplement their incomes, which further constrains service delivery in the public sector. Health workers in the public sector remain underpaid and overworked, impeding the delivery of high-quality care.[55] In order to mitigate these challenges, there has been a recent increase in the hiring of health workers. However, as highlighted in the introduction, the majority of this hiring increase has been for cadres who are not directly patient-facing, which has resulted in an increased wage bill with no corresponding increase in health worker availability. Further, while the recent decentralization has moved the wage bill to the governorates, hiring and firing authority has, for the most part, remained centralized. Given the lack of judicial and financial power, governorates do not have the ability to effectively oversee the quality of health workforce, and there have been no recent assessments of provider quality.

Service utilization and quality of care

The conflict in Iraq has affected the health system and slowed down its recovery, with health service utilization on the decline due to weak infrastructure, scarcity of HRH, and lack of coordination with the private sector. Mirroring the weakened health system capacity presented in the earlier sections, there has been a reduction in utilization across the primary and secondary levels of care, with large regional disparities in care-seeking behavior, at a time where need for health services has been increasing. Outpatient healthcare utilization has fluctuated significantly over the past decade and has notably decreased post-2015, at both the PHC and hospital levels (Figure 52). Total outpatient utilization per capita was at approximately 1.5 in 2016 and 2017, down from 2.4 in 2014 and 2.3 in 2015, further highlighting the impact of the conflict.

Figure 52. **Outpatient utilization at PHC and hospital levels, 2012-2018**



SOURCE / MOHE statistics reports, 2012 - 2018

Disparities between PHC and hospital outpatient rates are more apparent in some governorates than in others. At the national level, average outpatient utilization rates per capita between PHCs and hospitals are relatively adjacent, and stand at 0.81 and 0.67, respectively. Regional comparisons, however, show that governorates such as Al-Anbar, Maysan, and Al-Mouthana are more reliant on hospitals for outpatient visits (Figure 53). Health service models characterized by an overreliance on hospital-based care tend to be expensive as well as unsustainable, demonstrating the weakness of primary health care systems in responding to the needs of the population and in controlling bypassing.[56] There is also considerable inequality across governorates in

54. Riyadh Lafta et al., "Perceptions, Experiences and Expectations of Iraqi Medical Students," *BMC Medical Education* 18, no. 1 (2018): 53. https://doi.org/10.1186/s12909-018-1156-8.

55. Ahmed Aboulenein and Reade Levinson, "Special Report: Broken Health - The medical crisis that's aggravating Iraq's unrest"

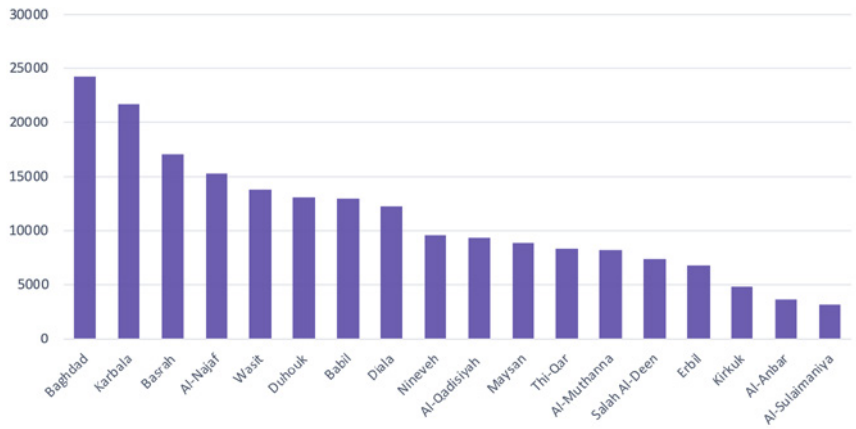
56. Hui Sin Teo et al., *The Future of Health Financing in Vietnam : Ensuring Sufficiency, Efficiency, and Sustainability* (Washington, DC,: World Bank, 2019); https://openknowledge.worldbank.org/handle/10986/32187; World Bank Group, *High-Performance Health Financing for Universal Health Coverage: Driving Sustainable, Inclusive Growth in the 21st Century* (Washington, DC,: World Bank, 2019).

terms of utilization at the health center level, with health centers in Iraq receiving almost 25,000 visits per year, whereas those in Kirkuk, Al-Anbar, and Al-Sulaimaniya received less than 5,000 visits per year, highlighting the disparities in resource allocation, capacity utilization, and demand (Figure 54).

Figure 53. **Outpatient visits per capita by governorate, 2017**

SOURCE / MOHE statistics reports, 2012 - 2018

Figure 54. **Visits per primary health care center, 2018**

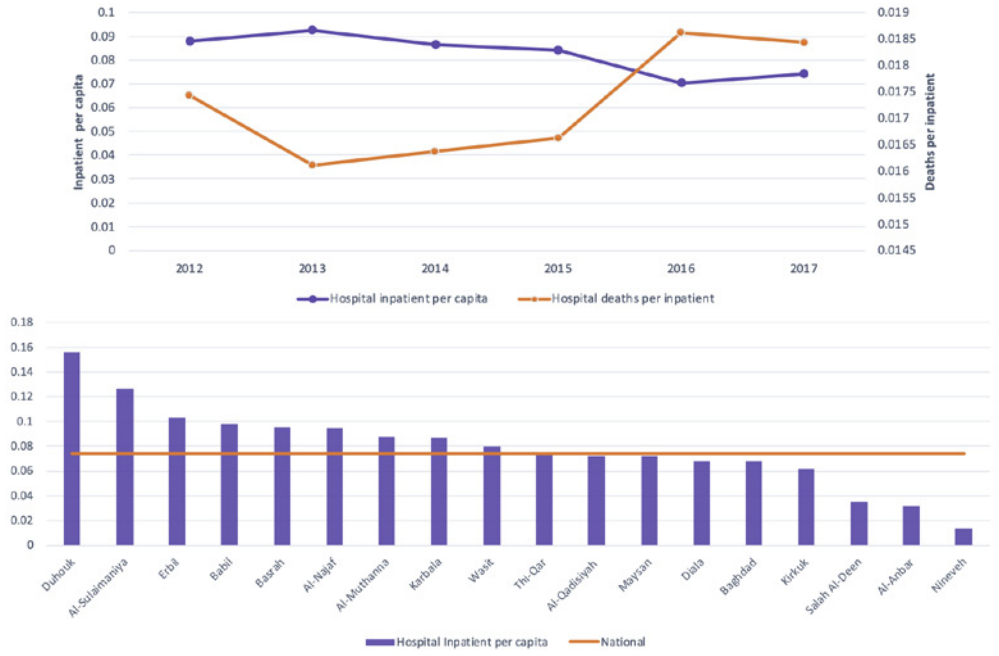


SOURCE / MOHE statistics reports, 2018

Inpatient utilization rates have also been decreasing over the past years, while hospital death rates have been on the rise. Between 2013 and 2017, inpatient utilization decreased by approximately 16 percent (Figure 55). During that same period, hospital deaths increased by approximately 14 percent. Furthermore, significant inpatient utilization disparities are observed across governorates, with Duhouk, al-Sulaimaniya, and Erbil registering the highest rates of hospital inpatient per capita (0.156, 0.126, and 0.103 per capita, respectively) and Salah Al-deen, Al-Anbar, and Nineveh registering the lowest rates (0.035, 0.031, and 0.013 per capita, respectively). Similar to the visits in primary health care center utilization, there was also variation

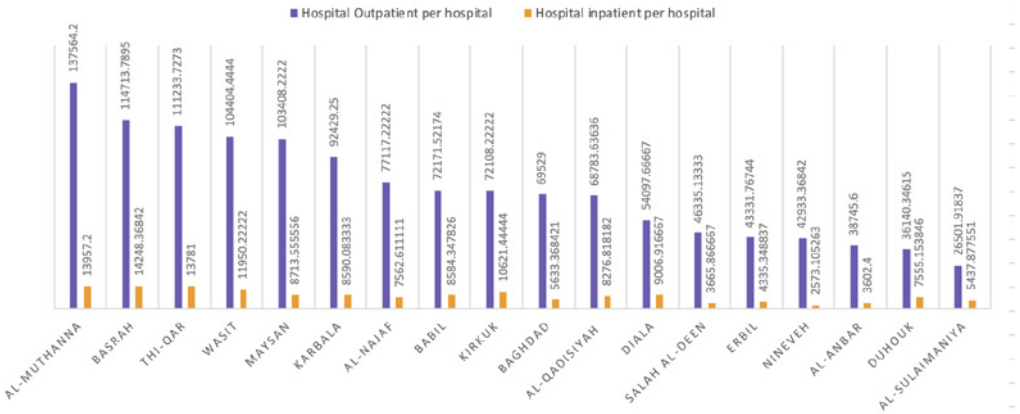
across hospital capacity utilization, with a mostly higher outpatient volume per hospital than per health center. Hospitals in Al-Muthanna, Basrah, and Thi-Qar had significantly higher utilization (above 110,000 visit per hospital per year), than those in Al-Sulaimaniya, Al-Duhouk and Al-Anbar, the latter having 40,000 visits per hospital per year (Figure 56).

Figure 55. **Inpatient utilization rates per capita, trend and across governorates, 2012- 2017**



SOURCE / MOHE statistics reports, 2012 - 2018

Figure 56. **Hospital outpatient and inpatient visits per hospital, 2017**



SOURCE / MOHE statistics reports, 2017

High-level utilization patterns mirror the availability and distribution of inputs across the health sector. As highlighted throughout this section, there are considerable discrepancies across health system capacity and utilization across governorates, and while there is no direct causal association between capacity and utilization, data points to a concentration of high utilization and concentration in certain areas over others. Al-Sulaimaniya, Erbil, Baghdad, Babil, and Thi-Qar governorates had some of the highest rankings in terms of physical and human resource availability; amongst said governorates, Erbil and Babil also had the highest utilization. In contrast, governorates like Nineveh, Al-Anbar, and Kirkuk had relatively low levels of assets, as well as low levels of utilization. For many indicators on utilization and access, the impact of the recent conflict is visible, with Anbar, Diyala, Ninawa and Salah Al-Deen consistently having some of the poorest outcomes. Analyzing the distribution of health system capacity and utilization across governorates is the prerequisite to ensuring equitable service delivery, as well as focusing on quality and equity.

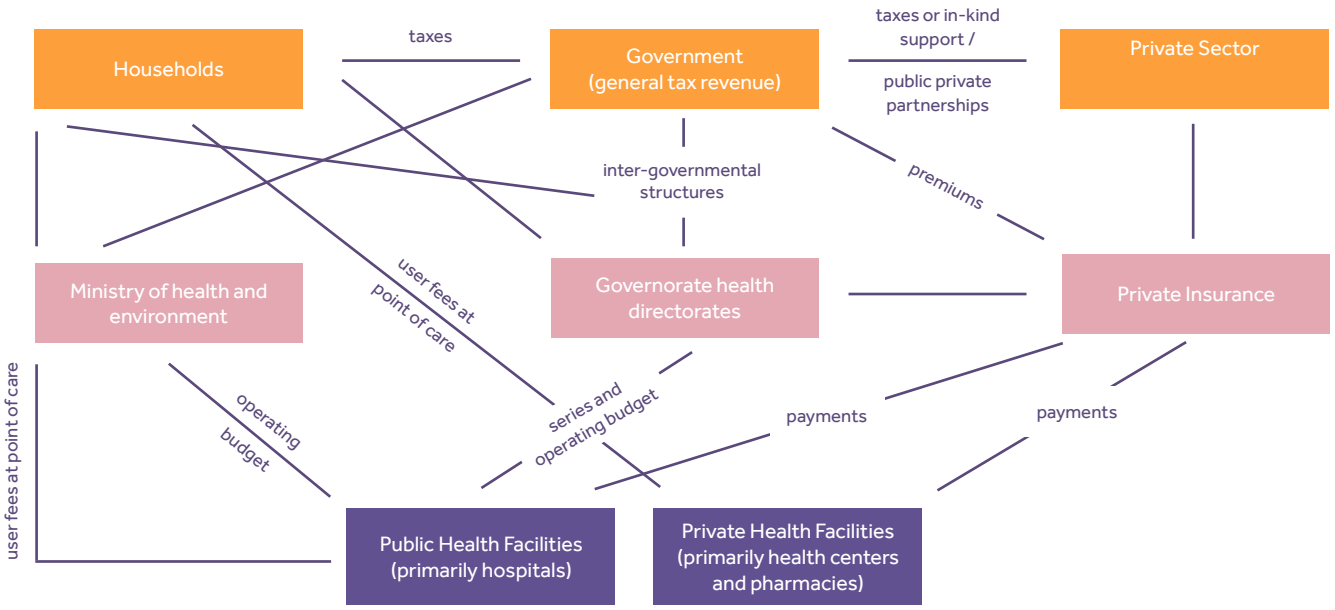
Iraq has a high share of mortality attributable to low-quality care. There are no recent surveys from Iraq demonstrating key variables in terms of structural, process, or outcome measures of quality of care; however, cross-country data points to poor outcomes with regards to quality of care. High-quality health systems—defined as systems which optimize health care in a given context by consistently delivering care that improves or maintains health outcomes, by being valued and trusted by all people, and by responding to changing population needs—are essential in reaching universal health coverage. According to work by the Lancet Commission High Quality Health Systems (HQSS), Iraq, in 2016, had one of the highest rates of amenable mortality, defined as mortality that would not happen in the presence of high-quality care. Analysis showed that there was a total of 47,964 deaths in 2017, 35,413 of which due to low quality and 12,551 of which due to low utilization, indicating that poor quality remains a significant challenge even when individuals reach health services. There were 97 deaths per 100,000 attributable to low quality of care, a rate significantly higher than that in other upper-middle income countries or other peer countries.[57] Another cross-country analysis on amenable mortality by the Institute of Health Metrics and Evaluation's Healthcare Access and Quality (HAQ) index demonstrates that Iraq has an index score of 51.1, the lowest in the MENA region, highlighting the prevalence of mortality that can be averted in the presence of access to high quality care. [58]

2.3 Health financing

Revenue-raising arrangements and health-financing landscape

The main funding sources for the health financing system in Iraq include general government revenues and direct payments by households. In the absence of a prepaid risk pool and contributory schemes, the entirety of the government health budget in Iraq is financed by general government revenues (Figure 57). Similarly, almost the entirety of household spending on health is at the point of care, resulting in a high share of out-of-pocket expenditures. The upcoming potential launch of financial protection schemes, including health insurance, is expected to change this landscape.

Figure 57. **Flow of funds in the Iraqi health system**



SOURCE / Key informant interviews at MOHE

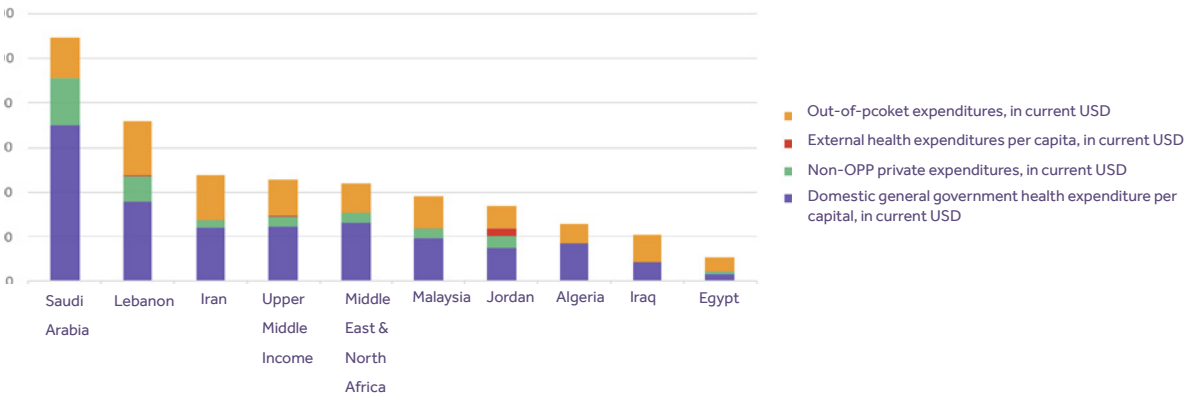
57. Margaret E. Kruk et al., "Mortality Due to Low-quality Health Systems in the Universal Health Coverage Era: A Systematic Analysis of Amenable Deaths in 137 Countries," *The Lancet (British Edition)* 392, no. 10160 (2018): 2203-212. https://doi.org/10.1016/S0140-6736(18)31668-4.

58. IHME, Iraq Profile, 2017. http://www.healthdata.org/iraq .

Fiscal space for health remains constrained and private health spending has grown more rapidly than public health spending. As highlighted in chapter 1, it is difficult to increase funding for health and other human development sectors in the short- to medium-run, given the limited overall fiscal space. In addition, health spending has, historically, grown at a slower pace than GDP: the elasticity of health spending between 2003-2017 was 0.86. This implies that, despite significant nominal growth from 2003 to 2017, health spending grew approximately 14 percent less rapidly than GDP. The increase in total health spending, with an elasticity of 0.983, was driven primarily by increases in private health spending. During the same period, public health spending increased with an elasticity of 0.699.[59] This implies that, unless the health budget is significantly reprioritized in the short- to medium-term, or, unless Iraq diversifies the economy away from oil and raises significant non-oil revenues such as through additional taxation, there is limited room for additional public health expenditure.

Compared to peer countries, Iraq spends considerably less per capita, with an overreliance on out-of-pocket (OOP) expenditures. Data from World Development Indicators (WDI) demonstrate that Iraq spent a total of 210 USD per person on health in 2017, an amount higher than Egypt only and significantly lower than the regional average, which is already low. Analysis demonstrates that the distribution of health financing is fairly similar in other comparator countries that are close to the upper-middle income country average, which have about a third of all health spending financed directly at the point of care by OOP and over half of all spending financed by governments, with the remainder financed by the private sector. In contrast to these countries, 58 percent of health spending is financed by households at the point of care, and only 42 percent of all health financing comes from the government (Figure 58).

Figure 58. **Per capita current health spending in Iraq and comparator countries, 2017, in current US$**



SOURCE / World Bank World Development Indicators, based on WHO Global Health Financing Database

Over the past decade, per capita health spending in Iraq has fluctuated, driven by declines in government expenditure and increases in out-of-pocket spending (OOP). Since 2010, current health expenditure per capita has increased by a compounded average growth rate (CAGR) of 4.72 percent, having been driven by a 16 percent increase in OOP spending and a 2.5 percent decrease in government health spending. Per-capita health spending has remained between 150 USD and 200 USD over the past decade, and government spending significantly increased in 2017 compared to 2016 (Figure 59). In 2017, per-capita government health spending was 88, compared to 122 USD out of pocket. Non-OOP private expenditure and external health expenditure do not play a significant role in financing the Iraqi health sector.

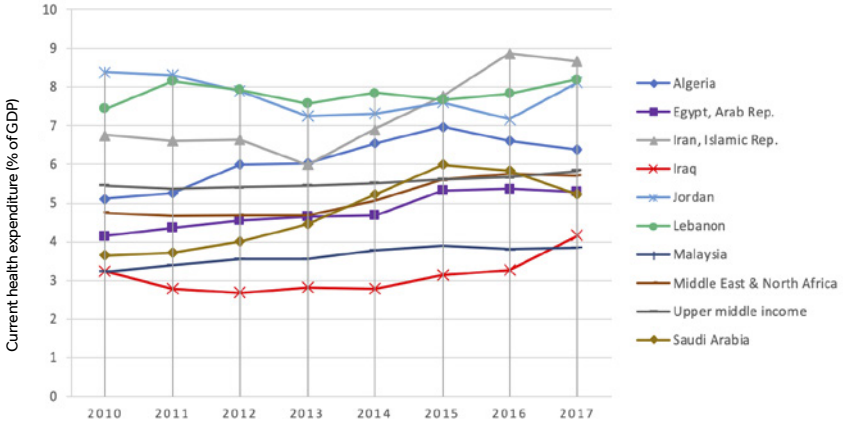
59. Elasticity was calculated by authors through conducting a linear regression analysis of the natural log of GDP over the natural log of health spending.

Figure 59. **Per capita health spending in Iraq and its composition, 2010-2017**

SOURCE / World Bank World Development Indicators, based on WHO Global Health Financing Database

Despite the elevated OOP, Iraq continues to spend a low share of its GDP on health. Government health expenditure is only 1.7 percent of GDP in 2019, which is about half of the MENA region and upper middle-income average, and, together with Egypt, the lowest amongst comparator countries. Despite the elevated OOP, a similar pattern emerges while looking at current health expenditures a share of GDP (Figure 60), [60] where 4 percent of GDP is allocated to health, demonstrating the lack of fiscal priority afforded to health in Iraq.

Figure 60. **Current heath expenditure as a share of GDP in Iraq and comparator countries, 2010-2017**



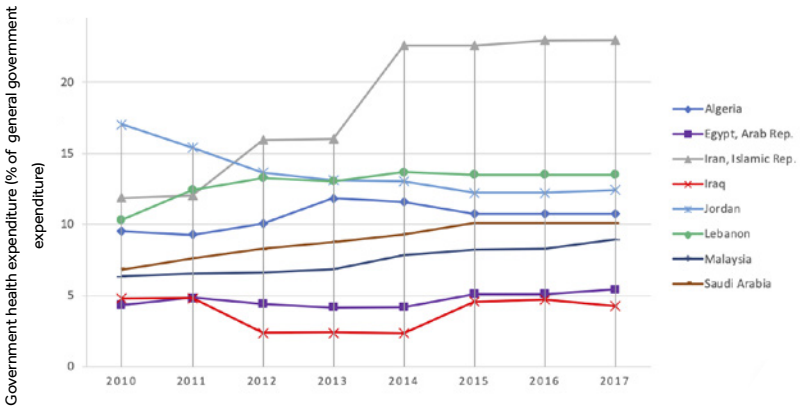
SOURCE / World Bank World Development Indicators, based on WHO Global Health Financing Database

Government health financing

Compared to peer countries, Iraq spends the lowest share of its total government budget on health. Figure 61 demonstrates that only 5 percent of the government health expenditure in 2017 is allocated to health in Iraq, a rate that is the lowest compared to other countries in the region; further, this is one of the lowest rates in the world. As a reference, Algeria, Jordan, and Lebanon all spend above 10 percent of their national budget on health and Iran spends over 20 percent. The rate has remained fairly stagnant over the past decade, demonstrating room for prioritizing health within the national budget. Benchmarking this data with the Ministry of Finance data demonstrates a different rate: Figure 62 shows that overall fiscal space for the government has been increasing since 2016, but the share of health in the national planned budget has declined from 8 percent in 2015 to 6 percent in 2019. While disaggregated governorate budget is not available for comparison across sectors, a comparison of the national budget demonstrates that in 2019, out of 25 ministries or departments on the central budget, health was the 10th, trailing ministries such as petroleum, defense, labor, and higher education and education, with similar results across the years.

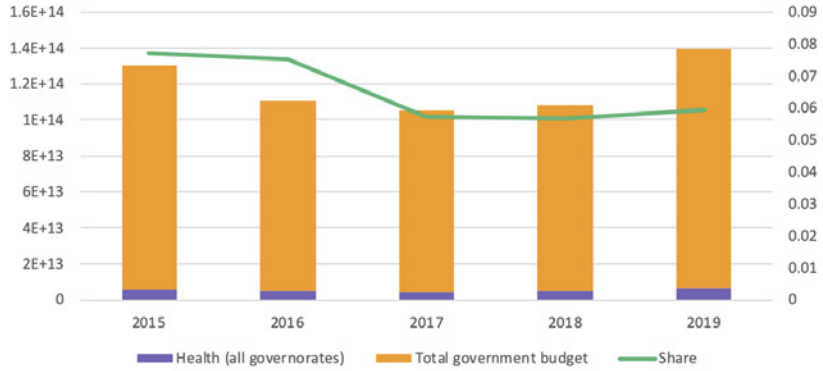
60. Current health expenditure refers to all health expenditures including public and private expenditures.

Figure 61. **Domestic general government health expenditure as a share of general government expenditure in Iraq and comparator countries, 2010-2017** [61]



SOURCE / World Bank World Development Indicators, 2020

Figure 62. **Total health planned budget as a share of total government budget, 2015-2019**

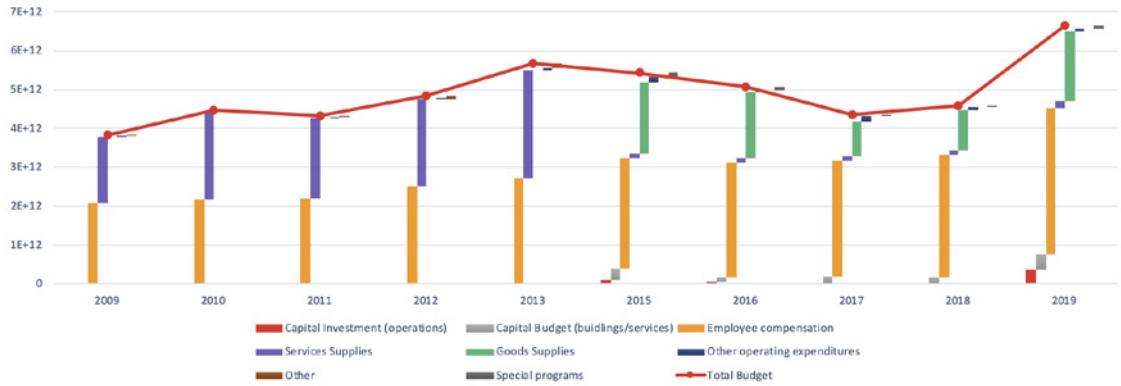


SOURCE / MOHE budget data, 2020

The impact of the recent conflict is visible in the health budget, which demonstrates a decline from 2013-2017 but increases since. Almost the entirety of the budget is dedicated to recurring expenditures, most of which are salaries. The total budget of the MOHE has gone up from 3.8 trillion IQD) in 2009 to 6.65 trillion IQD in 2019 (Figure 63). From 2009 to 2017, the share of salaries as a share of total planned budget remained between 48-52 percent; in 2016, this increased to 59 percent, and in 2017, to 69 percent, where it remained until it went down to 56 percent in 2019, reflecting the significant increase in recruitment of administrative and non-clinical staff into the health sector, as well as a decrease in the medicines and equipment budgets. This increase also mirrors the trends seen in the decentralized budget, with the creation of decentralized entities in 2016 with budgets almost entirely dedicated to financing. The second largest share of the budget is for goods and services, which largely includes drugs, supplies, and other medical equipment, a share which has been around 50 percent until 2015, when it began a period of decline to about 30 percent in 2019. In recent years, the capital investment planned budget of the MOHE increased, reaching about 10% of total planned budget in 2019.[62] This budget is allocated to large-scale construction projects such as the reconstruction of health facilities post-conflict.

61. Data for Iraq for the period 2015 to 2017 is based on MOF data.
62. Capital investment planned budget refers to capital investment (operations) + Capital budget (building and services).

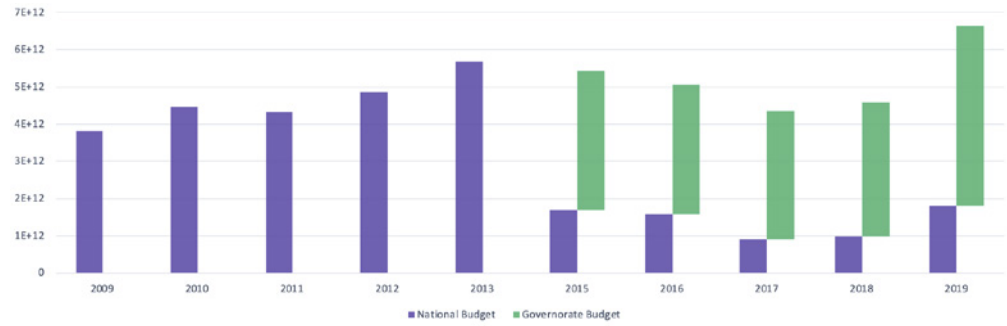
Figure 63. **Iraqi health planned budget for MOHE and governorates, in nominal IQD, 2009-2019** [63]



SOURCE / MOHE budget data, 2020

In 2015, the MOH decentralized and the wage bill shifted to the governorates, while the national government continued procurement and investment arrangements. As demonstrated in Figure 64, starting in 2015, a significant majority of the MOH budget has shifted to being managed by governorates: in 2019, about 27 percent of the total health budget was managed by the national government, with the rest devolving into governorates. The distribution of budgets within governorates remained constant since the beginning of decentralization: in 2019, almost the entirety of all governorate budgets was dedicated to salaries, with limited other current or recurring expenditure. In contrast, almost the entirety of the central budget was dedicated to drug procurement. In addition to governorates, the City of Medicine is also its own cost center, and the majority of its budget also went to paying health workers, which could create challenges in terms of access to medical equipment.

Figure 64. **Distribution of 2019 MOH budget by cost center and category**

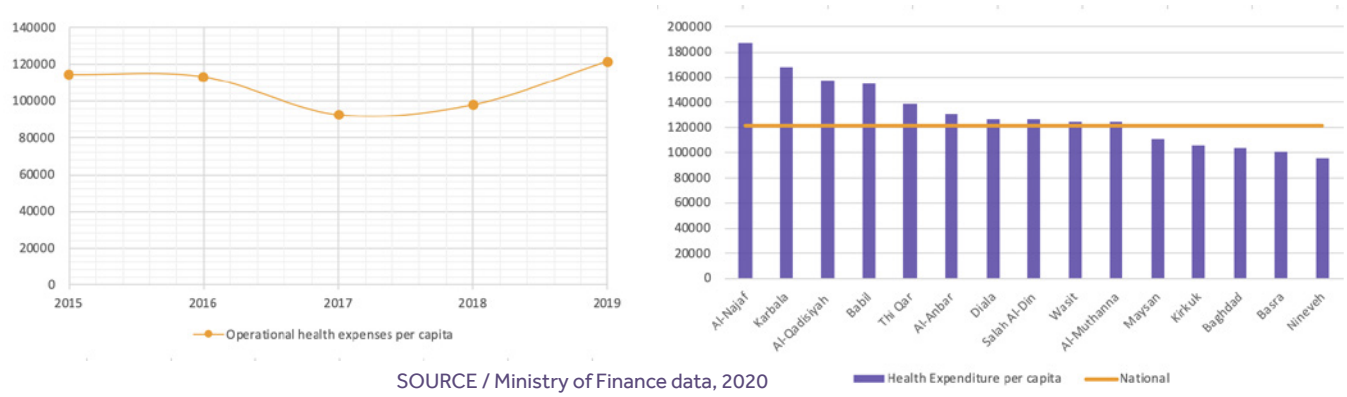


SOURCE / Ministry of Finance budget data, 2020

Expenditure trends mirrored budget trends and per capita government health expenditure has remained relatively stagnant, with a slight decline in 2017 and variations across governorates. In 2019, health expenditures per capita figure was about 122,000 IQD, or about 102 USD, which is the highest it has been in the past decade. Per-capita government budget has declined from 2015 to 2017 and has been increasing since 2017. Fluctuations in per-capita resources jeopardize the continuity of service delivery. Figure 65 demonstrates the variation of per-capita health budget across governorates compared to the national overall figure, demonstrating that Nineveh, Basrah, and Baghdad have the lowest per-capita health budgets, whereas Al-Najaf, Karbala, and Al-Quadisiya have the highest; the budget available to Al-Najaf is almost twice that of Nineveh, highlighting potential regional disparities. The majority of health expenditures has been allocated to employee compensation, followed by medicines, leaving governorates and the MOHE with limited resources for investments or other operating costs. 65 percent of drug expenditures were by headquarters and 35 percent by governorates, indicating the potential to concentrate and harmonize procurement. Figure 67 demonstrates that decentralization has effectively shifted the wage bill to governorates but left them with minimal resources to deliver on key functions.

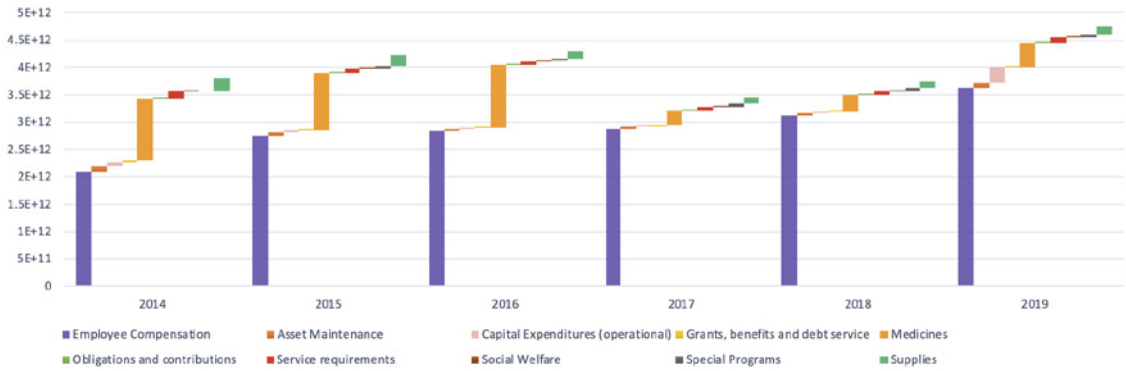
63. There was no approved budget in 2014. There have been significant changes to the MOF chart of accounts during that period. The category for 'services supplies' for years prior to 2015 also includes 'goods supplies'; after 2015, the categories were separated.

Figure 65. **Health expenditures per capita, 2015 – 2019, and health expenditures per capita by governorate, 2019**



SOURCE / Ministry of Finance data, 2020

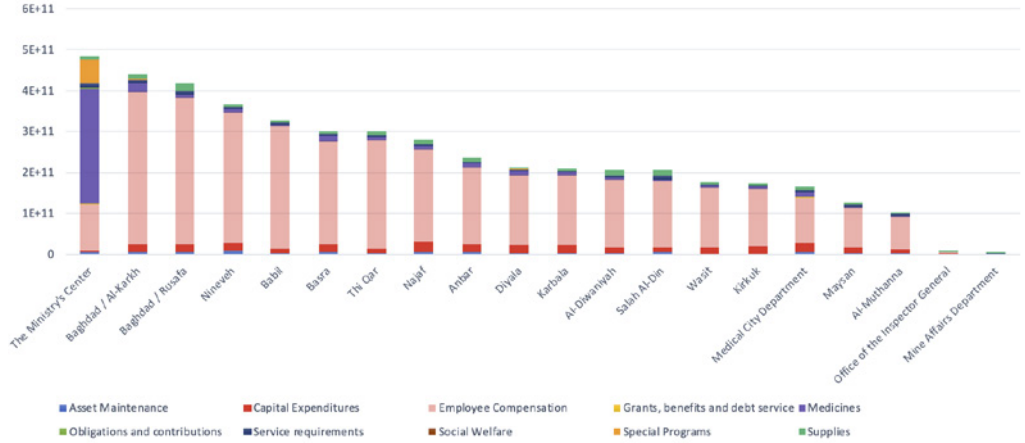
Figure 66. **Health expenditures (operational) by category, 2014 - 2019**



SOURCE / Ministry of Finance data, 2020

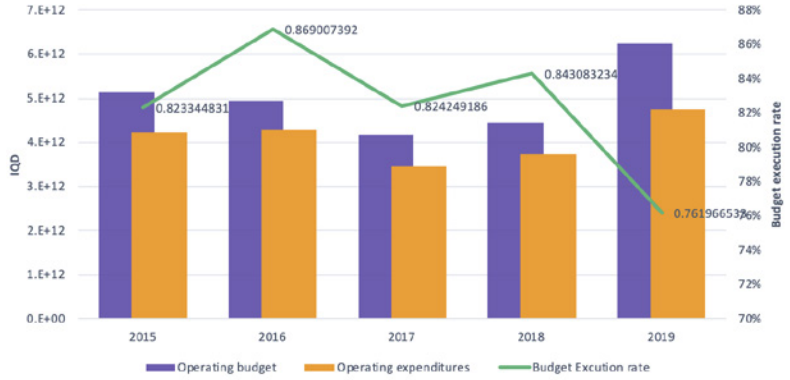
There are significant differences between budgeted and actual fiscal healthcare expenditure, both over time and between expenditure categories. While the degree and nature of public budget execution vary from one year to the next, underspending was more prominent in 2019. with an operational budget execution rate of 76 percent. Investment expenditures in 2019 were also under-executed with approximately 35 percent of budgeted investments implemented (the investment expenditures include health investment spending beyond the MOHE and governorate health departments). This may reflect inefficiencies in the public investment cycle, particularly as regards to costing and planning. Budgets for wages tend to be consistently fully-executed (average of 97 percent execution rate) whereas budgets for supplies, service requirements, operational capital expenditures, and maintenance of assets are mostly under-executed, with high fluctuations in the rates from year to year; notably, only about a third of the supplies budget (including medicines) has been executed (Figure 69)[64].

Figure 67. **Health expenditures by department and category, 2019**



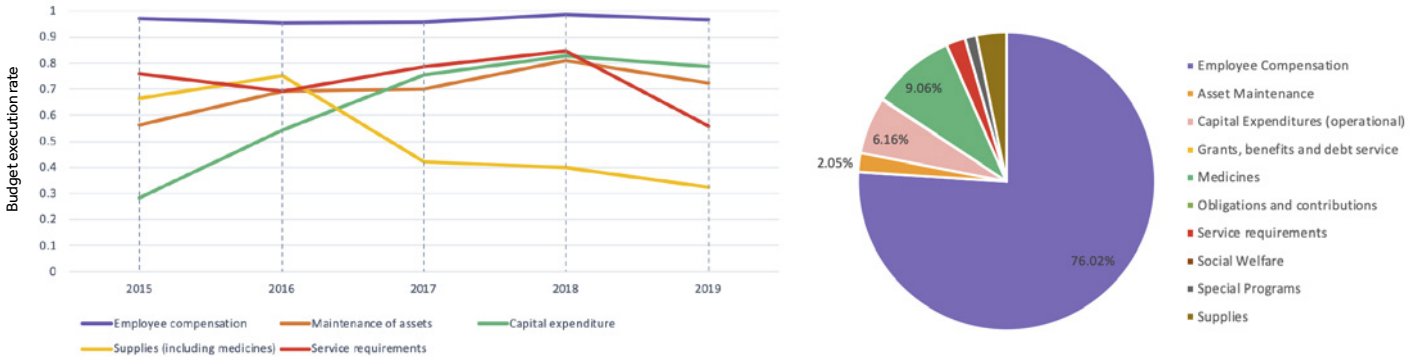
SOURCE / Ministry of Finance data, 2020

Figure 68. **Budget execution, 2015 - 2019**



SOURCE / Ministry of Finance data, 2020

Figure 69. **Budget execution rate by category, 2019 (left); operating health expenditures by category, 2019 (right)**



Differences in health budget execution are likely related to fiscal rigidities limiting the authorities' flexibility in adjusting budgets in the short term, as well as to weak public financial management capacity. Fiscal rigidities can originate from institutional, regulatory and/or political economy constraints, and are typically concentrated in operating expenditures. For instance, large entitlement programs for civil servants and the ensuing spending on public wages or debt servicing can be forms of institutional constraint. Fiscal rigidity also makes it more difficult for governments to improve the efficiency of public spending, as resources are guaranteed regardless of performance. In Iraq, employee compensation made up around 76 percent of government expenditures on health and has been increasing in recent years. The share in 2019 is higher than most countries where data is publicly available.[65] As highlighted in chapter 1, Iraq suffers from weak financial management capacity at every stage of budget formulation and execution, including audits. The recent increases in the wage bill, as well as the lack of a medium-term expenditure framework, are factors that further exacerbate this situation.

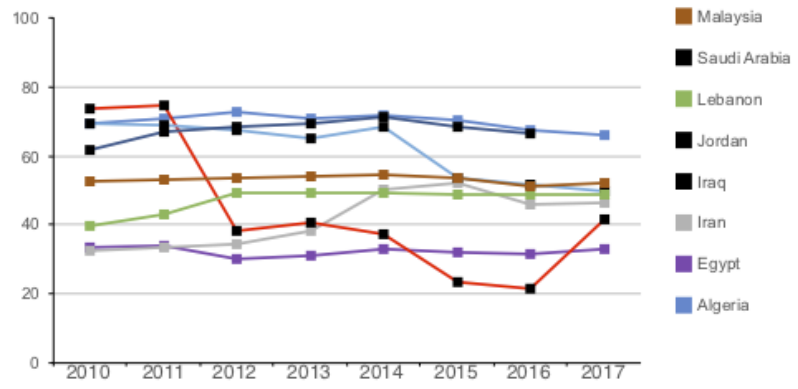
Out of pocket and private health financing

Due to the lack of health insurance or other prepaid schemes, a very low share of health spending in Iraq is financed through the government, and out-of-pocket spending remains high. Only 42 percent of total health spending in Iraq is financed through a public risk pool and compulsory financing arrangements such as national health insurance (Figure 70). This is the lowest amongst comparator countries, except for Egypt, where universal health insurance was recently ratified and is in the process of being scaled up. Limited pooled expenditure not only reduces the equity of health spending through increased OOP but also results in inefficiencies caused by the lack of a single purchasing agency able to control costs.

64. Shared Budget data is limited to an overall supplies budget, and is not disaggregated by drugs versus other categories.

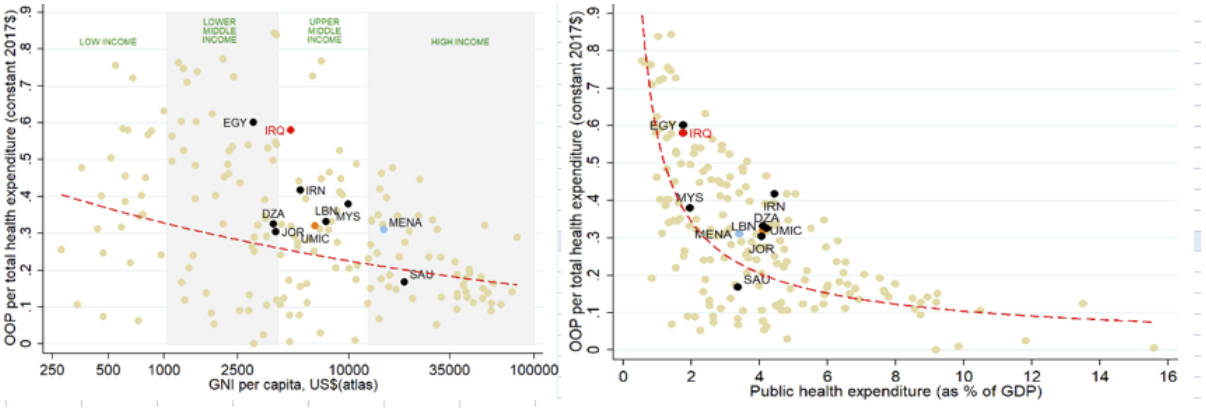
65. World Health Organization, "Salaries as % of Total Public Health Expenditure", October 2019. https://gateway.euro.who.int/en/indicators/hfa_582-6810-salaries-as-of-total-public-health-expenditure/.

Figure 70. **Compulsory financing arrangements (CFA) as a share of current health expenditure in Iraq and comparator countries, 2010-2018**



SOURCE / World Bank World Development Indicators

Figure 71. **GNI per capita versus out of pocket spending per capita (left) and public health expenditure per capita versus out of pocket spending per capita (right) in Iraq and comparator countries, 2017**

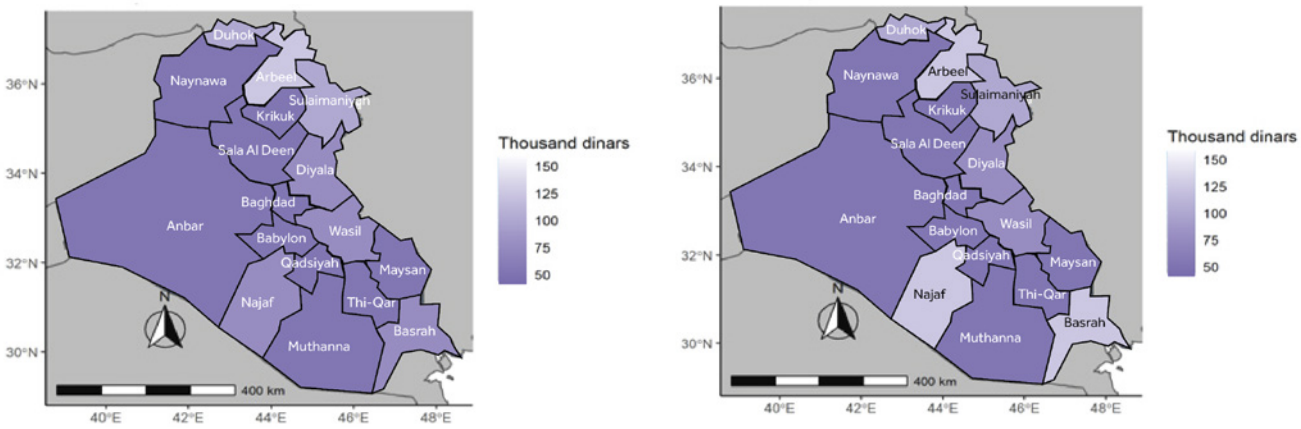


In the absence of effective risk-pooling mechanisms, patients incur significant amounts of out-of-pocket spending, particularly in the private sector. Out-of-pocket spending has more than doubled between 2012 and 2017, going from 89,500 IQD to 194,233 IQD per individual per year. This increase was particularly visible in the richer quintiles: while expenditure doubled for the poorest quintile, it increased fourfold for every other quintile. The poorest quintile spent about 100,000 IQD in 2017 as opposed to the almost 300,000 IQD spent by those in the richest quintile. Similarly, those in urban areas spent almost twice as much as those in rural areas (120,000 IQD versus 220,000 IQD). This increase has been driven by an increase in utilization in the private sector. This can also be seen in the significant variation across governorates, with the predominantly urban Basrah, Erbil, and Najaf having a higher average out-of-pocket expenditure of over 300,000 IQD, whereas Anbar, Wasit, and Muthanna spent below 50,000 IQD; per capita spending in these governorates declined since 2012, reflecting the role of the conflict (Figure 73).

Figure 72. **Annual out-of-pocket expenditure by income and residence, 2006-2017**

SOURCE / IHSES 2006-2012 and SWIFT 2017

Figure 73. **Annual out-of-pocket expenditure by governorate, 2012-2017**



SOURCE / IHSES 2006-2012 and SWIFT 2017

The increase in OOP spending was driven mainly by an increase in private hospital costs even as pharmaceutical products remained the largest driver of OOP. The largest driver of out-of-pocket spending has been pharmaceuticals, with 41 percent of total spending in 2006, 44 percent in 2012, and 36 percent in 2017. Until 2017, the second largest driver of annual health spending was hospital services, but spending for this category has doubled from 15 percent of individual OOP spending to 30 percent in 2017. The increase in hospital spending was particularly visible in urban areas and for those in richer quintiles, as pharmaceutical spending continued to be the main driver of OOP in rural areas and for the poorest. Spending on hospitals was particularly high in the predominantly urban governorates of Basrah, Najaf, and Baghdad. While essential medicines are provided free of charge at health facilities due to stock-outs, many patients have to pay out of pocket for these medications. Payments for other outpatient visits constituted the third largest area of spending for households.

In 2017, about a third of the population incurred catastrophic health expenditure and 34 percent of the poorest households experienced impoverishing health expenditure, presenting significant equity concerns.[66] The incidence of catastrophic health expenditure, as defined by health expenditure exceeding 10 percent of non-food expenditure, has been increasing steadily since 2006, going up from 9 percent to 31 percent. The figure was much lower for the 40 percent threshold, but has also increased to 3 percent of the population incurring a significant amount of health spending. Catastrophic expenditure in 2012 was more significantly concentrated in the poorest quintiles, with 30 percent of the poorest quintile and 20 percent of the richest spending more than 10 percent of their household expenditure on health. In 2017, catastrophic expenditure was more prevalent across all income groups, with 28 percent of the poorest quintile, 36 percent of the second poorest quintile, and 35 percent of the richest quintile having incurred health expenditure 10 percent over their non-food expenditure. Catastrophic expenditure increased particularly for households in urban areas between 2012-2017, and for those in Maysan (130 percent increase), Sulaimaniyah (125 percent increase), Basrah (101 percent increase), and Baghdad (99 percent increase), potentially driven by an overreliance on care at private hospitals. These changes

66. This report uses the reference and methods by Wagstaff et al, calculating 'catastrophic health expenditure' as 'health expenditure divided by non-food expenditure exceeding 10% or 40%.' Impoverishing health expenditure is defined as 'the change in poverty headcount with and without out- of-pocket spending included in consumption'.

also reflect a shift in care-seeking from public to private hospitals, given limited investment in the reconstruction of the health sector following the conflict. As can be expected, the incidence of impoverishing health spending is inversely correlated with income, with 15 percent of all households and 34 percent of the poorest households being at risk of being pushed into poverty, in 2017, because of health expenditures, as opposed to 3 percent of the richest quintile. Impoverishment risk has increased for all quintiles except for the richest, demonstrating lack of improvements in social protection. Impoverishing health expenditure was particularly prevalent in the governorates of Thi-Qar, Muthanna, and Wasit.

In order to reduce the high share of out-of-pocket spending and improve the efficiency of the health sector through increasing pooling, a social health insurance (SHI) law is being prepared for implementation. Since November 2017, the Iraq house of representatives has been working on drafting a SHI law that would ensure comprehensive health coverage for all Iraqis residing in Iraq. As of November 2019, the House of Representatives voted on only 24 articles of the health insurance law.[67] SHI would be applied on the basis of a payroll tax applied to civil servants and, potentially, the private formal sector as a way to generate additional revenue. The law aims to: reduce financial burdens on Iraqi citizens resulting from health expenditures; create multiple sources of financing for the health sector; foster healthy competition within the health sector; enhance overall performance; and promote private sector participation in the provision of services. The SHI would lead to the establishment of an independent Health Insurance Fund managed under the supervision of various authorities including the MOHE, Ministry of Finance, Ministry of Planning, Ministry of Labor and Social Affairs, private sector representatives, unions, and civil society. Implementation of the law is expected to occur in three phases and would ensure integration of the insurance system, at the provider level within existing health systems. Participation fees for the SHI are set to be between 10,000 and 100,000 IRQ (approximately 8 and 84 USD), depending on level of income; certain vulnerable populations are exempt from the participation fee (people under social welfare, people suffering from certain diseases, pregnant women, and people living with disabilities). In addition to the participation fee, covered individuals are expected to pay between 5 and 10 percent of sought health services, and between 70 and 80 percent of the value of medicines (vulnerable populations being exempt); in the absence of a financial sustainability analysis, it is not possible to assess whether these levels of contribution will be sufficient or not.[68] There are concerns about the health sector's readiness to integrate SHI rollout, particularly as it relates to benefits collection, matters of governance, and availability of health assets to provide services, including the lack of institutional capacity to ensure a high quality of care, an efficient benefits package, and contracting of private facilities to result in efficiency and quality. Further work has to be undertaken regarding revenue mobilization, risk pooling, and purchasing arrangements in order to improve integration, equity, financial sustainability, and institutional capacity.

Efficiency

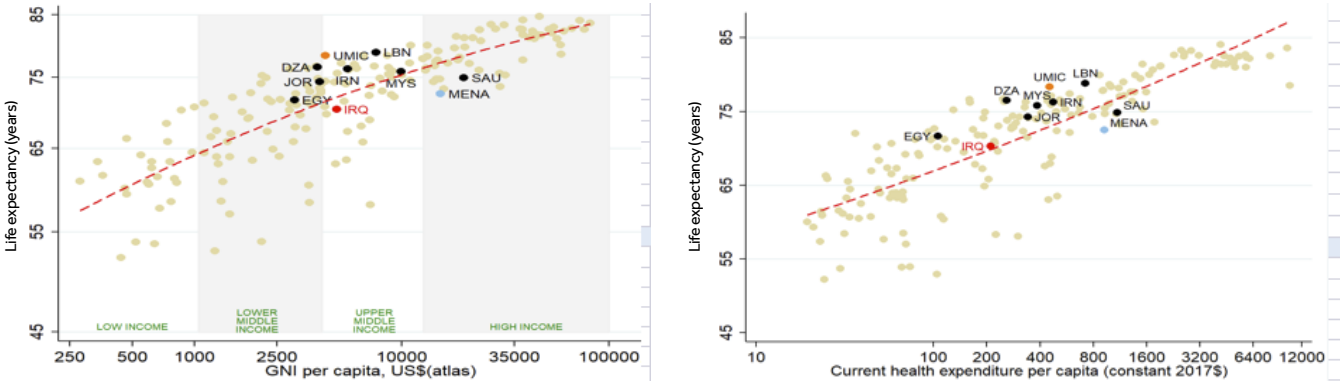
Iraq's health outcomes compare unfavorably to those of other countries with similar income levels and spending on health. A comparison of key health outcomes such as life expectancy, infant mortality, and diabetes prevalence indicates that, when accounting for GNI per capita and health spending levels, Iraq often performs below the international average. Life expectancy in Iraq is below the fitted line when contrasted with GNI per capita, and slightly above the fitted line when contrasted with health spending (Figure 74). Infant mortality is above the fitted line when contrasted with both GNI per capita and health spending. Similarly, adult diabetes prevalence is above the fitted line when contrasted with both GNI per capita and health spending (Figure 75). These results imply that the country's public spending on health, compared to those of other countries, might be less effective (i.e., does not produce similar health outcomes as in other countries with the same level of spending) and/or inefficient (i.e., does not minimize costs given low education outcomes). A cross-cutting concern is allocative inefficiency: even though there is no data or analysis with regards to the distribution of health financing by disease or need, recent National Health Accounts data from 2018 shows that 37 percent of all health spending takes place at hospitals, as opposed to 16 percent for preventive care and 13 percent for primary care at outpatient facilities, mirroring the utilization patterns discussed in earlier sections. This indicates

67. من هي الفئات المستفيدة من قانون الضمان الصحي العراقي الجديد؟ (2019)

68. قانون الضمان الصحي (2017).

key allocative inefficiency across levels of care. [69]

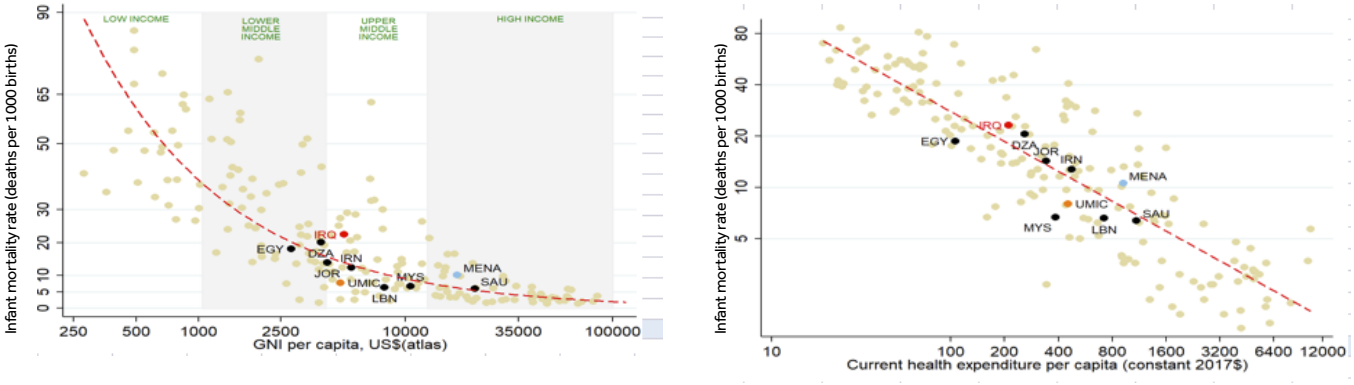
Figure 74. **Life expectancy and GNI per capita, and life expectancy and current health expenditure per capita, 2019**



SOURCE / United Nations World Population Prospects: 2019 revision and World Bank National Accounts database

SOURCE / UN Inter-agency Group for Child Mortality Estimation and World Bank National Accounts database

Figure 75. **Adult diabetes prevalence and GNI per capita, and adult diabetes prevalence and health expenditure per capita, 2019**

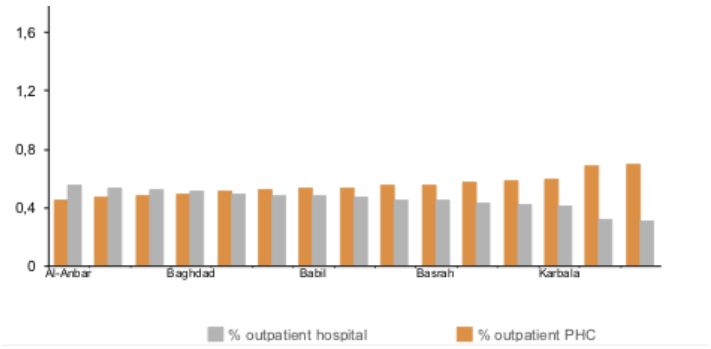


SOURCE / International Diabetes Federation, Diabetes Atlas and World Bank National Accounts database

Governorates with higher outpatient PHC utilization rates (as opposed to outpatient hospital utilization) tend to have lower total health expenditures per capita. Over the last decade, the number of primary health facilities has increased even though visits are still concentrated in secondary and tertiary levels (Figure 76). Orienting the health system towards primary care can enhance the efficiency of care by reducing the inappropriate use of specialty services, improving a population's health, and reducing costs. A simple pair-wise correlation analysis of health expenditures per capita at the governorate level in Iraq and of the percentage of hospital outpatient utilization shows that higher hospital outpatient rates are positively correlated with higher health expenditures (= 0.1527).

69. The WHO's National Health Accounts data from 2018 was in the process of finalization as this report was being completed. As such, and given the availability of more detailed data from government budgets, the National Health Accounts data was not utilized.'.

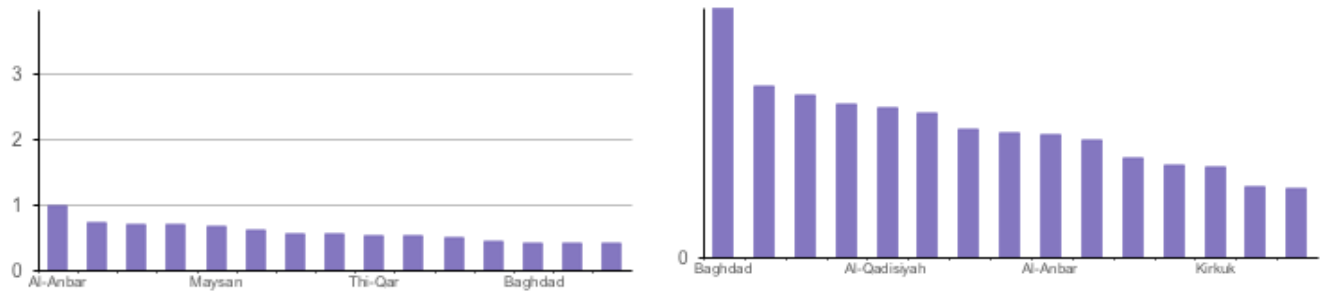
Figure 76. **Health expenditures per capita vs. outpatient (PHC and hospital), 2019**



SOURCE / Ministry of Finance expenditure data 2019, MOHE statistics reports 2012 – 2019

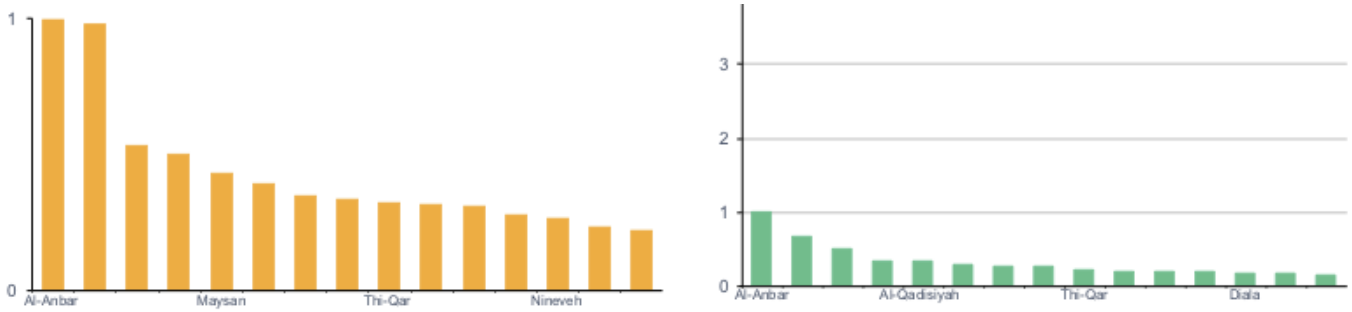
A data envelopment analysis (DEA) of all Iraq's governorates was carried out to identify the governorates that use resources most efficiently, and to identify room for improvements, finding that most of Iraq's governorates can achieve better utilization rates with the same level of assets. While inputs are constrained across all levels of the Iraqi health system, assessing the utilization and relative efficiency of health facilities allows for determining where spending needs to increase the most. DEA allows for the measurement of relative efficiency of subnational health systems (governorates, in this case). The governorate level DEA is conducted under two main streams of efficiency: first, in terms of efficiency of assets such as human resources for health and utilization with regards to improving utilization; and second, the efficiency of funds in advancing health outputs and outcomes with health expenditure as the input and infant mortality rate as the output. It should be noted that given the small sample size, the results from the DEA should be interpreted in an illustrative, directional, and contextual manner, as opposed to explicitly defining and naming high- and low-performing governorates (Figure 77). Similar results are seen with maternal and infant mortality rates, where many governorates can improve their performance with the same level of resources, except for the governorates that have been impacted by conflict and that already have a low level of inputs (Figure 78). Improving input utilization is particularly relevant considering the limited fiscal space of the health sector. This analysis also implies that additional resources for the health sector should be dedicated towards primary care and the improvement of spending for non-salary health spending.

Figure 77. **Efficiency scores, physician density–utilization (left), and health center density-utilization (right)**



SOURCE / Ministry of Finance expenditure data 2019; MOHE statistical report 2019

Figure 78. **Efficiency scores health expenditures – IMR (left), and health expenditures – MMR (right)**

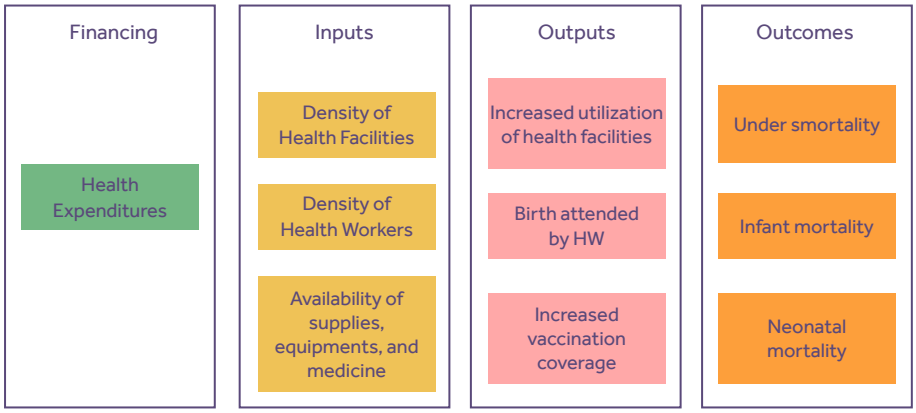


SOURCE / Ministry of Finance expenditure data 2019; MOHE statistical report 2019

BOX 1

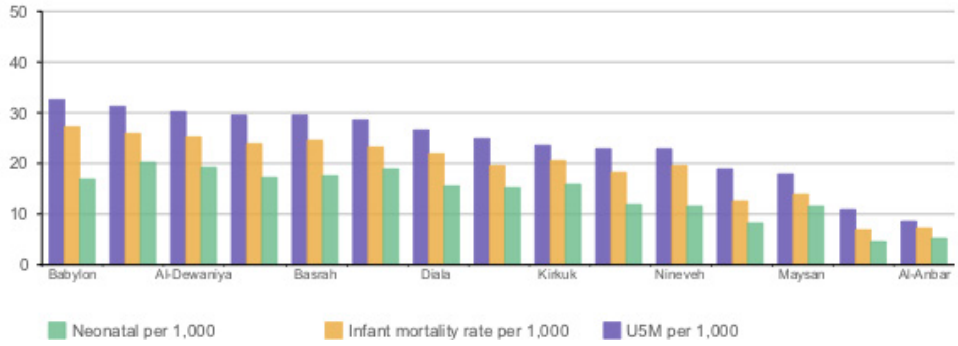
CASE STUDY ON THE EFFICIENCY OF INTERVENTIONS TO REDUCE INFANT, NEONATAL, AND UNDER-5 MORTALITY IN IRAQ

This case study illustrates the theory of change leading to health outcomes and allows for analysis that identifies potential bottlenecks along the process. There may be many other factors affecting health outcomes; the below serves mainly as an initiator of further, more detailed, analysis.



Data on health outcomes indicates that Babil, al-Najaf, and Al-Diwaniya governorates are poor performers with high levels of infant, neonatal, and under-5 mortality compared to other governorates. However, when assessing output figures for birth attended by skilled workers, utilization of health facilities, and vaccination coverage, the aforementioned governorate are not the poorest performers. In other words, outputs are not effectively improving outcomes, indicating the potential for technical efficiency gains.

Figure 79. **Child health outcomes across Iraqi governorates, 2019**



Addressing the process from inputs to outputs in a similar manner, data shows that Babylon, al-Najaf, and Al-Diwaniya's efficiency from input to output (output/input) is close to the average, with the exception of Babil, which has a low health facility utilization relative to density of health facilities. This may prompt further analysis targeted at assessing hinderances to accessing health facilities in Babil (distance to health facility, behavioral survey, etc).

2.4 Recommendations and policy options

Iraq must urgently scale up its efforts to strengthen its health system, particularly in the context of the emergency imposed by COVID-19. As this analysis demonstrates, the Iraqi health system suffers from a wide range of challenges associated with inequitable financing, low levels of physical and human resources, and fragmented governance. COVID-19 is set to exacerbate these weaknesses. In order to improve its human capital and health outcomes, Iraq has to accelerate reforms around the following four pillars and goals: improving access to quality services; increasing equity; maximizing efficiency; and ensuring preparedness against current and future pandemics. It should be noted that many of the recommendations are cross-cutting across the four goals: for example, the launch of an inclusive and equitable financial protection scheme has the potential to assist in progress across every goal mentioned in this section.

The recommendations in this section build on previous analysis conducted by the MOHE. This includes a 2019 report entitled "The health situation in Iraq: Challenges and work priorities" [70], which details a set of priorities and recommendations for the improvement of the health sector [71], including: (i) revising the financing of the health sector to increase the allocation of funds to the MOHE, and to consider other sources for resource mobilization, such as sin taxes, (ii) agreeing to a basket of essential health services and advancing the development of social health insurance, (iii) addressing the gaps in human resources for health (particularly in terms of distribution), (iv) reinforcing the health information system, (v) addressing the inefficiencies in the availability of medicines by reevaluating the pharmaceutical sector and developing a strategy to reform all stages of the supply chain, (vi) strengthening public financial management arrangements, particularly in the context of decentralization, (vii) expanding the range of service provided by public hospitals and modernizing some of the older institutions, (viii) and establishing a clear plan for the reconstruction of health infrastructure, particularly in regions that were affected by conflict.

Effective implementation of these recommendations is contingent upon sufficient prioritization of the health sector as well as the creation of a conducive governance and legislative environment in Iraq. As the budget and expenditure analysis has demonstrated, MOHE receives a relatively small share of the general government budget; it is challenging to enact structural reforms within the highlighted resource and governance constraints. The share of health in the government budget must be increased, using additional identified revenue sources. Moreover, the legislative environment surrounding human resources and decentralization should be reformed, as discussed further in the next section. While the MOHE is the principal agency in charge of designing and implementing health sector reforms, it is impossible for these reforms to succeed without the necessary level of political and financial commitment on the part of other stakeholders including the Prime Minister, Parliament, and Ministry of Finance. As a first step, an inter-ministerial committee should be established and constituted to discuss, identify, and prioritize these reform opportunities. Finally, it should be highlighted that while some of these recommendations can be accomplished in the short- to medium-term (e.g. within the next 3-5 years), many require longer term political commitment and commitment to implementation in the longer run (e.g. within the next decade); the design and implementation considerations for these reforms should begin in the short term with the understanding that institutional arrangements would start in the short term as well.

70. https://moh.gov.iq/upload/upfile/ar/1027.pdf ."الوضع الصحي في العراق: التحديات وأولويات العمل".

71. Key priorities and recommendations for the health sector in the report are based on descriptive analysis of the Iraqi health system (including infrastructure, human resources, health financing, and the pharmaceutical sector). The report also elaborates on key achievements of the MOHE in last few years as a foundation for implementing proposed recommendations.

Table 5 **Reform pillars and specific recommendations**

Reform pillars	Specific recommendations	
1. Improving access to quality services	**Short- to medium-term** - Improve the quality of the health workforce through standardized provider assessments and customized trainings, particularly for non-communicable disease management (3).	**Longer-term** - Reorganize service delivery to strengthen community- and primary-care level, particularly for internally displaced persons and other vulnerable groups, as well as primary care, through empanelment and family medicine reforms (2, 3, 4). - Accreditation, contracting and harmonized incentives (through provider payment) in order to regulate and strengthen private-sector primary care delivery (2, 3).
2. Increasing equity	**Short- to medium-term** - Conduct additional work emphasizing scope, targeting, and sustainability for financial protection schemes. - Define a minimum benefits package, ensure its effective delivery, and assess its financial sustainability.	**Longer-term** - Scale up well-targeted financial protection schemes. - Leverage sustainable public-private partnerships to rebuild health system capacity in areas impacted by the conflict (1).
3. Maximizing efficiency	**Short- to medium-term** - Improve data systems and accountability in order to diagnose/identify technical efficiency gains for procurement and other clinical inputs. - Conduct a functional review of the wage bill and human resources for health capacity and assess and rationalize governance of human resources for health (1, 2).	**Longer-term** - Rethink decentralization within the context of broader public-sector reform. - Improve the flexibility of funds and strengthen public financial management within the context of broader governance challenges (1, 2). - Emphasize primary care service delivery and implement a referral system (1, 2). - Institutionalize health benefits package updates and efficiency analyses.
4. Ensuring pandemic preparedness	**Short- to medium-term** - Ensure essential-service continuity and surge capacity to respond to COVID-19 (1, 2). - Build capacity for effective clinical care for COVID-19 case management. - Establish mechanisms to ensure the safety of the health workforce.	**Longer-term** - Strengthen event-based surveillance systems and the public health capacity of the government. - Develop an effective communication strategy.

Improving access to quality services

Service delivery reorganization can improve access to quality services. This reorganization should start at the community level, where the introduction and scale-up of community health workers (CHW) could ensure the delivery of essential prevention and treatment services, both for COVID-19 and essential services including non-communicable diseases (NCD). CHW would be able to deliver a set of preventive services at the community level, particularly for maternal and child health, psychosocial support, NCD, and water, sanitation, and hygiene. There is a wealth of evidence from low- and middle-income countries regarding the effectiveness of CHW [72], but they have not been leveraged as effectively in Iraq or the MENA region. CHW also have a significant potential to generate demand in the face of COVID-19, enabling the connection of patients to the health system and ensuring utilization does not decline significantly for key services. Crucially, CHW in Iraq can particularly assist the most vulnerable populations, including internally displaced people and refugees, as well as those living in the governorates most significantly impacted by the conflict with ISIS. This is particularly important in the context of COVID-19, as utilization has been declining due to a dual supply- and demand-side shock on health

72. Kerry Scott et al.,"What Do We Know about Community-based Health Worker Programs? A Systematic Review of Existing Reviews on Community Health Workers." *Human Resources for Health."* 16, no.1 (2018): 39.

services. While launching a community health workforce requires additional funds, there is evidence pointing its cost-effectiveness. A CHW cadre could be created through reallocation of health workforce from non-priority, non-clinical cadres to priority cadres such as CHW.

Increasing access to private primary care facilities and ensuring quality through introducing accreditation, contracting, and provider payment methods are essential. Given the predominantly chronic-disease burden in Iraq, investing in primary care, particularly for prevention and case management of hypertension and diabetes, is both effective and efficient. As this analysis has highlighted, primary health services are predominantly delivered by the private sector: in the absence of health insurance, access to primary care services is low and unequal. In addition, there is virtually no data available about services in the private sector, nor are there mechanisms to ensure that private providers adhere to clinical guidelines. MOHE should design a blueprint and a new approach for contracting the private sector to deliver primary care through; defining criteria for accrediting private facilities based on service availability and input capacity; contracting facilities that are accredited and fit the norms; instituting cost controls and quality standards; and instituting quality-assurance processes with well-defined criteria and regular audits to ensure service delivery. Contracts should be complemented with leveraging provider payment modalities that incentivize quality. Performance-based provider payment modalities, which provide additional funding to providers upon the fulfillment of various conditions (e.g. clinical results), can improve quality of care through improved motivation and accountability, as can be seen in a diverse range of middle-income countries.[73] These incentives can be particularly effective in managing chronic care conditions through incentives for continuity and coordination of care. Different modalities, such as capitation with performance incentives, can be piloted in a small scale in the short run in various public and private facilities, and scaled up based on performance, with the ultimate goal of producing harmonized and strengthened provider incentives across the health system. This would be implemented within the broader context of health insurance reform, building on existing technical assistance proposals and priorities[74].

Parallel to investing in the community level and strengthening private primary care, Iraq could consider transitioning towards a redesigned primary care model in the medium- to long-term. Mounting evidence from countries with a similar burden of disease and development level as that of Iraq suggests that assigning family medicine doctors to households (i.e. empaneling families) and strengthening the gatekeeping function of the primary care health system have the potential to improve outcomes while reducing costs. To this extent, integrating services; innovating through new service delivery approaches such as telemedicine; redesigning patient-centered and community-centered service delivery modalities; assessing clinical pathways for NCD to define guidelines with regards to where specific conditions would be managed; and adopting new communication technologies are all essential measures in leveraging primary care to tackle the increasing burden of NCD.[75] Examples include Brazil's Family Health Teams, which provide an integrated approach to managing NCDs at the community level; effective engagement of CHW in China, in the prevention and diagnosis of NCDs; and the Health Transformation Program in Turkey, which has capacitated the public primary care system and empaneled the population. Many of these countries have also complemented service delivery redesign reforms with financing reforms through measures such as the ones mentioned above (reformed provider payment modalities and effectively implemented contracts). Service-delivery redesign, including integrated care, family medicine, empanelment, and reformed provider payment, is a longer-term reform; however, Iraq can start by creating a roadmap for an integrated primary care system in which patients are empaneled either in public or private care facilities. Redesigned and strengthened primary care systems will also assist Iraq in managing the burden of COVID-19, as it enables hospitals to focus on managing COVID-19 cases and essential delivery to remain at the primary care level.

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73. Alexander K Rowe et al., "Effectiveness of Strategies to Improve Health-care Provider Practices in Low-income and Middle-income Countries: A Systematic Review." *The Lancet Global Health* 6, no.11 (2018):E1163-1175. doi:10.1016/S2214-109X(18)30398-X; Dimitri Renmans et al., "Opening the 'black box' of Performance-based Financing in Low-and Lower Middle-income Countries: A Review of the Literature." *Health Policy and Planning* 31, no. 9 (2016): 1297-309. doi:10.1093/heapol/czw045.

74. As part of the I3RF technical assistance program financed by the World Bank, technical assistance programs have been designed to support pandemic preparedness, health insurance launch, and primary care quality improvements.

75. Margaret E Kruk, Gustavo Nigenda, and Felicia M Knaul, "Redesigning Primary Care to Tackle the Global Epidemic of Noncommunicable Disease. *American Journal of Public Health (1971) 105,* no. 3 (2015): 431-37. https://ajph.aphapublications.org/doi/pdfplus/10.2105/AJPH.2014.302392 Dorothy Lall et al., "Models of Care for Chronic Conditions in Low/middle-income Countries: A 'best Fit' Framework Synthesis." BMJ Global Health 3, no. 6 (2018): E001077.

Improving the competencies of health workers at every level of care is essential in ensuring quality of care. The weak health-workforce capacity is one of the main bottlenecks to quality healthcare in Iraq, as highlighted in the previous section. However, there is a lack of data with regards to the distribution and skills of health workers. As a first step, the MOHE should implement a health-workforce registry that includes up-to-date data on the cadres and distribution of health workers across the public and private sectors, facilitating decisions such as relocating health workers from areas of low- to high-need or informing the hiring of health workers to cadres with the largest gaps. In addition to better understanding the availability of health workers, assessing their quality is also essential. The MOHE should institutionalize regular provider competence assessments and build training curricula based on the gaps that emerge from these assessments, particularly for NCD management. Recently, efforts have been made to develop clinical guidelines for NCD for primary health care physicians, and steps have been taken to define the essential package to be delivered by health workers; there is a need to build on these efforts. Finally, licensing or relicensing of health workers could also potentially be linked to performance in these assessments, and provider competence assessments can be linked to performance payments as part of a revised provider payment system.

Increasing equity

Improving financial protection is the key to improving equity, and the first step is to conduct additional work particularly on the scope, targeting, and sustainability of potential financial protection schemes. While a new social health insurance scheme is being debated, there are significant questions regarding its feasibility and implementation modalities. The institutional capacity regarding the financial, labor, and legal dimensions of the proposed SHI law would have to be assessed prior to launch. Further, it is unclear how the current proposed scheme will cover the poorest and the most vulnerable, as it is a contributory scheme primarily targeted towards those employed in the formal sector. As Iraq moves towards universal health coverage, it will have to make decisions regarding the three dimensions of coverage: service, population, and financial. With regards to service coverage, Iraq will have to urgently develop, cost, and implement a primary health package responding to the priority health needs of the population, particularly for those who are internally displaced or living in governorates that have been the most adversely impacted by the ISIS occupation. This minimum services package of cost-effective interventions should focus on reproductive health, maternal and child health, mental health and psychosocial support, and gender-based violence and management of chronic NCD, particularly hypertension and diabetes.[76] This package should be delivered at every public and private primary care facility free of charge. In addition to the primary health package, a benefits package for any financial protection scheme should be well-defined prior to launch, on the basis of cost-effectiveness, equity, and access. Second, it is crucial to improve population coverage, particularly for the poorest and most vulnerable, including internally displaced people and refugees. For these populations, service delivery mechanisms such as NCD diagnosis campaigns, mobile medical units, telemedicine, and community outreach should be leveraged to the extent needed to deliver the minimum services package. Finally, financial coverage will have to be assessed further to enable designing mechanisms to maximize it, including the revenues and expenditures of any potential financial protection scheme to assess its feasibility. Given the current dearth of cost data, services should be costed and actuarial analyses should be conducted to assess the sustainability of scaling up a minimum services package nationwide, and expanding any financial protection scheme to include more benefits. Targeting is a key dimension of financial coverage, and efforts should be undertaken to build on the social registry and proxy-means tests currently used for determining eligibility for various public spending. Finally, financial coverage is a key tenet of expanding access to quality primary care services at private facilities: cost controls and coverage have to be instituted while contracting the private sector. Based on these additional studies, well-targeted financial protection schemes will have to be scaled up in the short- to medium-term, together with the necessary governance and institutional arrangements, which would have to implemented by MOHE and in close coordination with other stakeholders. It should also be highlighted that this cannot be accomplished unless fiscal space is considerably scaled up to support improvements in service, population, and financial coverage.

76. Discussions are already underway regarding the launch of this package through the I3RF technical assistance program. Furthermore, progress has been made with introducing an NCD package in primary health care centers, with indicators defined in line with the STEPwise survey. Further, NCD screening and counseling is offered free of charge or at subsidies at health centers.

Infrastructure investments will have to be scaled up to ensure equitable access to health services through reprioritizing the health budget and leveraging public-private partnerships. While fiscal space remains limited, the need for reconstructing health infrastructure remains, particularly in governorates that were most significantly impacted by conflict, such as Anbar, Diyala, Ninawa, and Salah Al-Deen—governorates that also have the lowest levels of access and utilization. GOI should consider engaging the private sector in the construction and rehabilitation of health facilities through innovative and effective public-private partnerships (PPP) such as a recent International Finance Corporation (IFC) investment to build a 161-bed hospital in the Kurdistan region[77]. GOI should develop a policy to standardize and harmonize future PPP to continue rebuilding health system capacity.

Maximizing efficiency

In the short to medium-term, maximizing allocative and technical efficiency is the key to improving health outcomes in Iraq given the limited fiscal space. As highlighted above, a redesigned health system that capacitates the community- and primary-level has the potential to improve allocative efficiency. Evidence from countries around the world points to the role of effective primary care in improving the effectiveness and efficiency of public health spending; strengthened primary care will be essential in improving access, quality, and equity of health services in Iraq. In addition to the proposed recommendations for improving primary care access, it is also essential to implement a referral system such that those seeking care at hospitals for primary care services in the primary health package would have to pay a bypass fee. This ensures hospitals are decongested and can focus on secondary or tertiary care. Improving technical efficiency, particularly for the procurement of drugs and medical supplies as well as other key inputs, is also essential. There are currently no mechanisms to ensure quality and cost control, and procurement in the private sector remains fragmented. Improving the efficiency of drug procurement through a cost-effective essential medicines list, prioritizing generics, centralizing procurement through capacitating KIMADIA, and boosting local pharmaceutical production can result in cost savings and improved outcomes.

Rationalizing decentralization arrangements can assist in improving health outcomes. Decentralization has the potential to improve accountability and health outcomes if implemented within the right legal and financial framework. However, decentralization in Iraq happened rapidly, mostly to move the wage bill from the national government to the governorates, and without a clear vision of intended policy goals and objectives. This has contributed to a disproportionate increase in the operational costs of governorates (mostly due to a rapid growth of governorate employees that were devolved from federal ministries),and has exacerbated existing complexities in the transfer of investment budget funding from the federal level to the governorate level.[78] For the decentralization process to take place effectively and provide governorates sufficient capacity to take on further responsibilities and autonomy of their budgets, it is essential to (i) ensure growth and diversification of revenues in both the federal government and governorates, to better support investment budgets, and (ii) establish a political acceptance of a decentralized state across the government, including the rationale for decentralization and the roles of decentralized entities.[79] Similarly, as highlighted in the introduction section, coordination between Republic of Iraq and the Kurdistan Regional Government is lacking with regards to data collection and service delivery. Improving decentralization and coordination between these entities can strengthen efficiency and governance.

Improving the efficiency of human resources for health spending is a crucial prerequisite to effective service delivery. As demonstrated in the financing section, over 75 percent of the MOHE budget is dedicated to paying health worker salaries, reflecting the results of a recent increase in hiring primarily non-priority cadres, leaving little room for other operational or capital expenditures. While this has helped close gaps, non-medical cadres have grown faster than medical cadres and the increase in hiring was not necessarily carried out on the basis of needs across cadres and regions. As such, it is essential to conduct a functional review of the wage bill and

77. World Bank Group, "IFC Press Releases," https://ifcextapps.ifc.org/IFCExt/Pressroom/IFCPressRoom.nsf/0/A49B15ACDFF-C96A385258535003A7F7 D.

78. Mike Fleet, "Decentralization and its discontent in Iraq," Middle East Institute (September 25, 2019). https://www.mei.edu/publications/decentralization-and-its-discontents-iraq.

79. Ibid.

the human resources for health capacity by generating data that would help identify where the most significant health workforce gaps are, as well as develop recommendations to rationalize the distribution of the health workforce in order to generate savings and prioritize cadres and governorates with the most significant gaps.

Strengthened information systems are the key to maximizing efficiency and improving public financial management. Despite the availability of routine data from the public sector, there is almost no data regarding the financing or delivery of services from the private sector, which delivers a significant number of services. Even though launching a national electronic medical records system would take a considerable amount of time and effort, MOHE should, as a first step, collecting a set of standardized indicators from the private sector, focusing on the priority metrics of access, utilization, and financing, particularly to enable NCDs to allow for continuity of care. Building on this, the MOHE should develop a blueprint for information systems at the patient level. Strengthened information systems will also enable improved and routine standard efficiency analyses, such as focusing on standardized unit costs per physician and per procedure. Information systems should also be utilized to allow for improved financial management. This could be achieved through the collection of detailed financial data (through BOOST, for example); by implementing an integrated financial management system (such as IFMIS); or by institutionalizing and standardizing national health accounts to collect regular data on flow of funds. While this assessment does not focus on public financial management, future assessments of fiduciary systems would need to be conducted in order to ensure efficiency and accountability. As highlighted, the government faces significant challenges at all stages of the policy and budgeting cycle; a detailed analysis is needed to document bottlenecks at every stage and identify improvement opportunities. All in all, improved data and analyses will highlight future directions on strengthening governance and will enable Iraq to transition towards a flexible and strategic purchasing system.

Ensuring preparedness against current and future pandemics

In addition to strengthening the health system, the Iraqi government has to strengthen its capacity in order to reduce the risk of morbidity and mortality from the COVID-19 pandemic and future disease outbreaks. As highlighted, Iraq is one of the countries most significantly impacted by the COVID-19 pandemic in the MENA region. In the short term, the focus should be on building capacity for strengthening clinical care, preventing transmission, improving communication, accelerating case detection, and ensuring the safety of the health workforce. However, longer-term priorities such as the development of an effective surveillance strategy, along with service-delivery redesign to ensure service continuity during COVID-19, should be set and implemented as soon as possible, including the following:

(i) Building capacity for effective clinical care for COVID-19 case management by assessing and redesigning service delivery to maximize patient flow and safety at health facilities; developing standard operating procedures for patient safety and infection prevention and control and health worker safety; and assessing the feasibility of a facility-based digital tool for COVID-19 case detection, reporting, and management.

(ii) Ensuring essential-service continuity through triaging between COVID-19 treatment facilities and ensuring that service delivery at primary care facilities is not interrupted for essential services such as maternal and child health and NCD interventions.

(iii) Developing an effective communication strategy focused on public-awareness raising and community awareness on nonpharmaceutical interventions.

(iv) Using innovation and technology in treating COVID-19 through assessing the current telemedicine infrastructure and identifying complementary solutions with corresponding clinical guidelines; piloting an online platform for contact tracing; and developing a training curriculum for public health officers.

(v) Strengthening event-based surveillance systems through mapping existing event-based surveillance systems at all levels, assessing gaps to fulfill core capacity surveillance requirements in accordance with the International Health Regulations (IHR), and integrating disease surveillance systems with an expanded health information system.

Chapter 3:
Education Sector

Introduction

Human capital development is imperative for sustainable economic growth in Iraq. Over the past decades, countries across the world have invested in human capital as a driver for economic growth. Today, human capital constitutes the largest share (64 percent) of total wealth worldwide.[98] However, Iraq's economy lacks diversification, and government revenues are still largely dependent on the volatile oil sector. The country's share of human capital as a percentage of total wealth is only 15 percent, the lowest in the MENA region. Investments in human capital and reforms to the education sector are urgently needed to spur economic prosperity.

Iraq is facing a human capital crisis fueled by a learning crisis. A child born in Iraq today will reach, on average, only 41 percent of her potential productivity when she grows up, as measured by the World Bank's Human Capital Index (HCI).[99] Iraq has one of the lowest Human Capital indicators in the region and the lowest among Mashreq countries. Iraq's poor performance on the HCI is largely attributed to the education outcomes calculated for the index. Based on current enrollment rates, an Iraqi child can expect to complete only 6.9 years of schooling.[100] However, when taking into account the amount of learning that actually takes place, this child will achieve only 4.0 learning-adjusted years of schooling (LAYS) by age 18. As a result, 40 percent of the (already-low) time spent in school fails to translate into productive skills when this child enters the workforce. [101]

The low HCI value suggests large inefficiencies in the quality and delivery of education services, which have translated into worsening economic conditions and social unrest. The lack of systematic education sector analysis, necessary to identify and tackle these inefficiencies, has prevented the Government of Iraq (GOI) from undertaking evidence-based reforms to improve human capital outcomes. Low levels of human capital, fueled by years of conflict, ineffective reforms, and limited opportunities for youth, have led to declines in economic and social outcomes, fueling social unrest. This highlights the urgency of improving the management and utilization of available resources and ensuring more equitable and efficient public spending.

The COVID-19 pandemic is expected to lead to even more learning losses among Iraqi children and youth, some of whom may drop out of school and never return. Simulations carried out by the World Bank suggest that up to 0.9 learning-adjusted years of schooling, on average, may be lost as a result of school closures during the COVID-19 pandemic—from a baseline of 4.0 LAYS. This may translate into more than 30 billion USD in lost lifetime earnings for affected students.[102] Current school closures pose a threat to even more children dropping out of school, especially those in rural areas and from the poorest households. While the Ministry of Education has provided remote learning through an online platform and television, the focus has mostly been on secondary education and on students sitting for final exams. Inequitable access to continued-education basic services has further expanded inequity, increasing the risk of school drop-out, especially among the most disadvantaged children and youth in Iraq.

This Public Expenditure Review (PER) offers evidence-based policy recommendations to inform education sector reform, which is urgently needed to spur human capital development and economic prosperity. This chapter analyzes the current context of Iraq's education sector (section 2) with a view toward adequacy (section 3), equity (section 4), and efficiency (section 5) of public and private expenditures on education, as well as the institutional and public financial-management aspects (section 6) of the education sector. The analysis in this chapter was carried by the World Bank on the basis of data collected from a range of public and non-public sources (see box 3). With the aim of improving human capital outcomes, the chapter offers a set of concrete short- and long-term policy recommendations to support enhanced service delivery and financial management in education. These recommendations are aimed at Iraqi policymakers who wish to improve the quality of

98. Glenn-Marie Lange, Quentin Wodon, and Kevin Carey, *The Changing Wealth of Nations 2018: Building a Sustainable Future*, (Washington, DC: World Bank, 2018). https://openknowledge.worldbank.org/handle/10986/29001.

99. The HCI measures the amount of human capital that a child born today can expect to attain by age 18, conveying the productivity of the next generation of workers compared to a benchmark of complete education and full health.

100. This places Iraq among the bottom 10 of 174 countries with an HCI calculated in 2020 in terms of expected years of schooling.

101. World Bank Group, Human Capital Project Country Brief and Data Sheet for Iraq (2018). http://www.worldbank.org/en/publication/human-capital.

102. Elisabeth Sedmik, Nathalie Lahire, and May Bend, "Iraq: Can COVID teach us how to build a better education system for all children?" World Bank Blogs (November 6, 2020). https://blogs.worldbank.org/arabvoices/iraq-can-covid-teach-us-how-build-better-education-system-all-children.

education sector financing decisions on the basis of rigorous evidence in order to develop a more equitable and efficient education system, a necessary step toward better learning and improved human capital.

BOX 3
A NOTE ON DATA SOURCES

The analysis in this chapter was carried out by the World Bank and is based on data collected from a range of public and non-public sources. Unlike many middle-income countries, Iraq reports little education data to major international databases—such as the UNESCO Institute for Statistics (UIS) and the World Bank's Education Statistics (EdStats)—and does not participate in internationally comparable systems of student learning assessment—such as the OECD's Program for International Student Assessment (PISA) and the International Association for the Evaluation of Educational Achievement's (IEA) Trends in International Mathematics and Science Study (TIMSS), and Progress in International Reading Literacy Study (PIRLS), organized by the International Association for the Evaluation of Educational Achievement (IEA). Consequently, this PER relies on alternative sources of education data for Iraq, thereby limiting the cross-country comparability of some analyses.

The main sources of data used in this chapter include:

- Government statistical data published by Iraq's Central Statistical Organization (CSO: http://cosit.gov.iq/). This includes key education sector indicators such as the number of students, teachers, and institutions, as well as general demographic data.

- Government financial data provided to the World Bank by Iraq's Ministry of Finance (MOF: http://mof.gov.iq/), and downloaded from the MOF Open Budget Survey website (http://mof.gov.iq/obs/en/Pages/obsDocuments.aspx). This includes approved budgets and budget execution data from 2009 to 2019.

- Household survey data collected as part of national and international survey programs. These include the Iraq Household Socio-Economic Survey (IHSES) conducted by the CSO in 2006-07 and 2012-13; the Survey of Well-being via Instant and Frequent Tracking (SWIFT) conducted by the World Bank in 2017; and the Multiple Indicator Cluster Survey (MICS) conducted in 2000, 2006, 2011, and 2018 by the CSO and the Kurdistan Regional Statistics Office, under the international MICS program overseen by UNICEF.

- Other sources of education data were used to complement available information on education sector outcomes. These include the World Bank's Human Capital Project (HCP: https://www.worldbank.org/en/publication/human-capital) and the Early Grade Reading Assessment (EGRA: https://earlygradereadingbarometer.org/iraq/countries/home), carried out in 2012.

As additional data becomes available, analyses in this PER may be revised to take advantage of more up-to-date information on the state of Iraq's education sector.

3.1 Education Sector Context and Outcomes

Main sector trends: accomplishments and challenges

Enrollment in Iraq's primary, secondary, and tertiary education institutions has increased steadily since the mid-1990s. From 1994 to 2018, the total number of students across all levels of education increased from 4.4 million to around 10 million. The sharpest increase was at the tertiary education level (268 percent), followed by secondary education (211 percent), while pre-primary- and primary education grew at a pace similar to that of the education sector as a whole (an overall increase in enrollment of 120 percent). Only vocational education saw a decline in the number of students, which decreased steadily from its peak in 2005 (see Figure 80 a).

The numbers of educational institutions and teaching staff broadly followed the long-term trends in student enrollment at each level of education. Primary, secondary, and tertiary education saw the number of students grow at a slightly faster pace than the number of teachers, leading to moderate increases in student-teacher ratios over the past decade: from 17 to 21 students per teacher in primary education; from 14 to 18 in secondary education; and from 12 to 16 in tertiary education. The number of schools grew in line with student

enrollment in primary and secondary education[103] . However, the vocational education sector saw sharp declines in student enrollment, accompanied by much slower reductions in the number of institutions and teaching staff (see Figure 50b-f).

While the number of primary and secondary "schools" (as administrative units) increased in line with student enrollment, a large infrastructure gap has developed, in the form of schools lacking their own physical facilities. As of the 2018/19 academic year, around 27 percent of primary schools and 46 percent of secondary schools "host" the remaining "guest" schools in the facilities.[104] According to the latest data from Iraq's Central Statistical Organization (CSO), the majority of schools (73 percent in primary education and 54 percent in secondary education) are considered "guest" schools (Table 6). With an average school-size of just under 400 students, and with many schools sharing facilities in multiple shifts, a shortage of educational infrastructure profoundly affects the ability to deliver quality education services.

Over time, consistently large gaps in access to education have been a key contributor to Iraq's deteriorating long-term human capital outcomes. Highly regarded in the 1970s, the Iraqi education system has lost some prestige among its peers in the Middle East and North Africa (MENA) region. Enrollment in all levels of education above primary is low and lags behind most international comparators. While improvements in access and completion have been made in primary education, these gains have been unequally distributed. One of the few measures of student learning outcomes, the 2012 Early Grade Reading Assessment (EGRA), suggests that quality of education, as measured through student learning, is lower than in neighboring countries.

The latest health crisis, precipitated by COVID-19 (coronavirus) in early 2020, puts an additional strain on the education system in Iraq, which is already negatively impacted by fragility and years of conflict. School closures due to the coronavirus will result in substantial learning losses, compounding fragile education service delivery that has been hampered by years of conflict, and which has left a large infrastructure and service delivery gap. Even before 2020, more than two million Iraqi children found themselves out of school for a variety of reasons: conflict, displacement, and infrastructure shortages among them. The reconstruction (infrastructure) and recovery (education service delivery) costs in the seven governorates directly affected by the recent ISIS-created conflict are estimated at 5.4 trillion Iraqi dinars (4.6 USD billion).[106]

Sector outcomes: Participation and completion rates

Participation in formal education—as measured through adjusted net attendance ratios, a proxy for enrollment—decrease steadily with age. From 92 percent in primary education, Iraq's attendance rates decline to 58 percent in lower secondary education and 33 percent in upper secondary education, with only primary education being at similar levels as international comparators.[107] The limited time-trend-attendance data available for Iraq from the UNICEF Multiple Indicator Cluster Survey from 2000 to 2018, shows substantial access gaps across all levels of education. Participation in primary education increased from 76 percent in 2000 to nearly 92 percent in 2018, with the largest increases occurring between 2000 and 2006. At this level, Iraq's enrollment is largely in line with regional comparators. However, in lower secondary education, which enrolls only 57 percent of Iraqi children of school age, and upper secondary education, which enrolls 33 percent of age-appropriate youth, Iraq's performance lags substantially behind regional comparators (Table 7 and Table 8).

104. Here, "schools" refer to administrative units, not physical facilities.

106. These include Al-Anbar, Babil, Baghdad, Diala, Kirkuk, Nineveh, and Salah Al-Deen governorates.

107. Adjusted net attendance ratio is defined as the percentage of children of appropriate age associated with a given level of education (e.g., primary school age) attending that level of education (e.g. primary school) or the next level (e.g. lower secondary school).

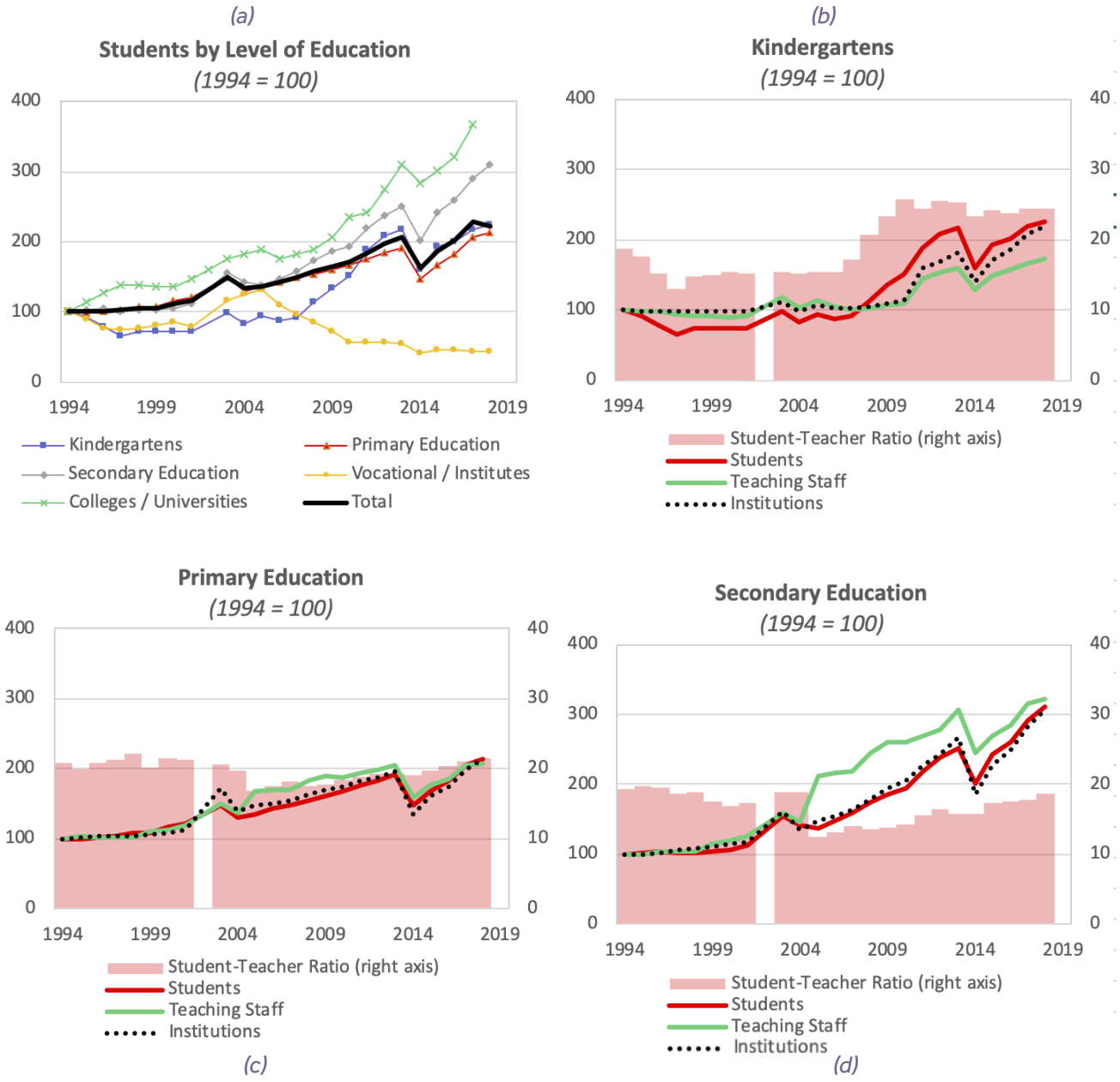
108. Unlike most countries in the world, Iraq does not consistently report education enrollment data to UNESCO's Institute for Statistics (UIS), complicating cross-country comparisons of its education system performance. For the purpose of this analysis, MICS adjusted net attendance rates for Iraq are compared to adjusted net enrollment rates for other countries derived from UIS data, which are accessed through the World Bank's EdStats database.

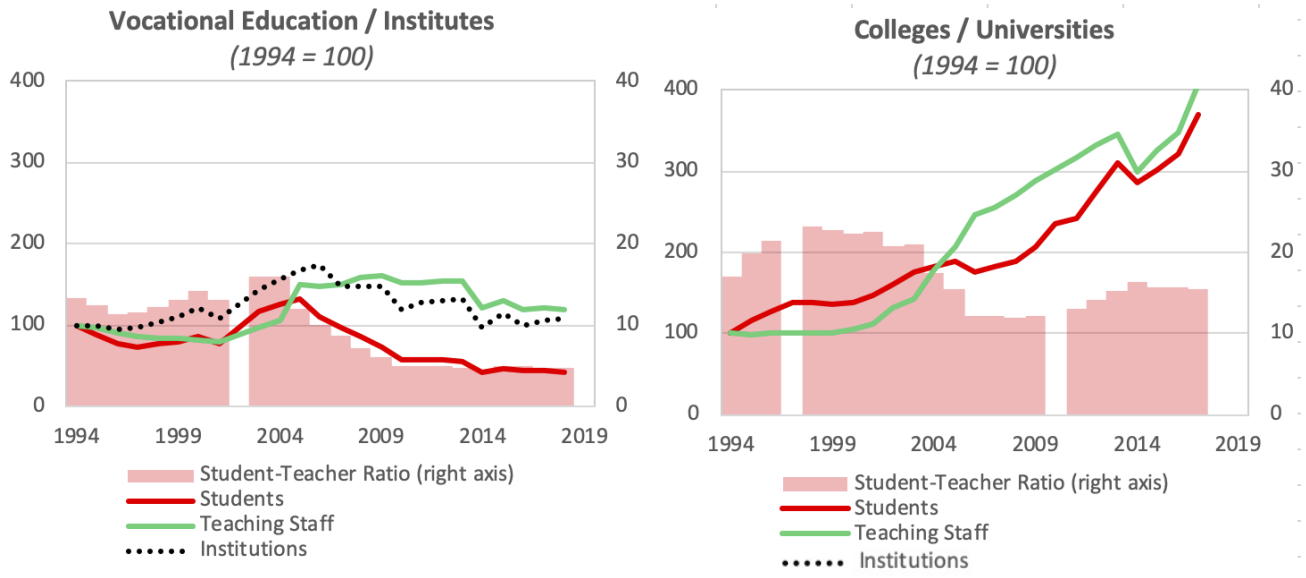
Table 6. **Number of primary and secondary education schools by host/guest status, 2017/18-2018/19**

	2017/2018			2018/2019		
	Guest School	Host School	Total School	Guest School	Host School	Total School
Primary Education - number of schools	1156	4409	15965	12564	4671	17235
Primary Education - host schools as % of total			28%			27%
Secondary Education - number of schools	4050	3435	7485	4411	3728	8139
Secondary Education - host schools as % of total			46%			46%

SOURCE / World Bank calculations based on data from Iraq's Central Statistical Organization

Figure 80. **Trends in the number of students, teachers, and institutions by level of education, 1994-2019**





SOURCE / World Bank calculations based on data from Iraq's CSO. (http://cosit.gov.iq/?option=com_content&view=article&id=987&catid=87&lang=ar and http://www.cosit.gov.iq/ar/2015-11-23-08-09-54).

NOTES / [1] KRI numbers are included in the 2003 totals for kindergartens, primary education, secondary education, vocational education, and institutes, as well as in the 2004-2005 totals for colleges and universities.
[2] Data for some governorates is excluded for 2014-2016 (Nineveh and Al-Anbar governorates and parts of Salah Al-Deen and Kirkuk).
[3] Teacher training institutes are included prior to 2017 (acceptance to these institutes was stopped in 2012).
[4] Number of institutions for colleges and universities is not reported by the CSO.

Over time, consistently large gaps in access to education have been a key contributor to Iraq's deteriorating long-term human capital outcomes. Highly regarded in the 1970s, the Iraqi education system has lost some prestige among its peers in the Middle East and North Africa (MENA) region. Enrollment in all levels of education above primary is low and lags behind most international comparators. While improvements in access and completion have been made in primary education, these gains have been unequally distributed. One of the few measures of student learning outcomes, the 2012 Early Grade Reading Assessment (EGRA), suggests that quality of education, as measured through student learning, is lower than in neighboring countries.

The latest health crisis, precipitated by COVID-19 (coronavirus) in early 2020, puts an additional strain on the education system in Iraq, which is already negatively impacted by fragility and years of conflict. School closures due to the coronavirus will result in substantial learning losses, compounding fragile education service delivery that has been hampered by years of conflict, and which has left a large infrastructure and service delivery gap. Even before 2020, more than two million Iraqi children found themselves out of school for a variety of reasons: conflict, displacement, and infrastructure shortages among them. The reconstruction (infrastructure) and recovery (education service delivery) costs in the seven governorates directly affected by the recent ISIS-created conflict are estimated at 5.4 trillion Iraqi dinars (US$ 4.6 billion).

Sector outcomes: Participation and completion rates

Participation in formal education—as measured through adjusted net attendance ratios, a proxy for enrollment—decrease steadily with age. From 92 percent in primary education, Iraq's attendance rates decline to 58 percent in lower secondary education and 33 percent in upper secondary education, with only primary education being at similar levels as international comparators. The limited time-trend-attendance data available for Iraq from the UNICEF Multiple Indicator Cluster Survey from 2000 to 2018, shows substantial access gaps across all levels of education. Participation in primary education increased from 76 percent in 2000 to nearly 92 percent in 2018, with the largest increases occurring between 2000 and 2006. At this level, Iraq's enrollment is largely in line with regional comparators. However, in lower secondary education, which enrolls only 57 percent of Iraqi children of school age, and upper secondary education, which enrolls 33 percent of age-appropriate youth, Iraq's performance lags substantially behind regional comparators (Table 7 and Table 8).

Table 7. **Adjusted Net Attendance Ratios by Level of Education in Iraq, 2000 - 2018**

		Primary Education				Lower Secondary Education			Upper Secondary Education
		2000	2006	2011	2018	2006	2011	2018	2018
Total		76.3	85.8	90.4	91.6	49.1	48.6.	57.5	33.0
Sex	Male	82.5	93.8	93.2	92.7	52.8	52.5	57.5	31.0
	Female	69.8	89.1	87.4	90.4	45.4	44.6	57.5	35.3
Area	Urban	83.8	91.5	93.8	93.0	49.1	55.5	64.5	36.9
	Rural	61.0	77.7	83.8	88.6	24.4	33.9	43.8	24.8
Wealth Index quintile	Poorest			78.8	84.1			35.2	13.0
	Second			90.1	92.0			51.5	23.4
	Middle			93.6	92.3			56.8	28.4
	Fourth			96.1	95.6			74.0	40.3
	Richest			97.6	96.6			76.6	56.2

SOURCES / MICS 2000, 2006, 2011, and 2018.

Table 8. **Adjusted Net Attendance/Enrollment Ratios by Level of Education for Iraq and Comparator Countries, 2018 (or latest available year)**

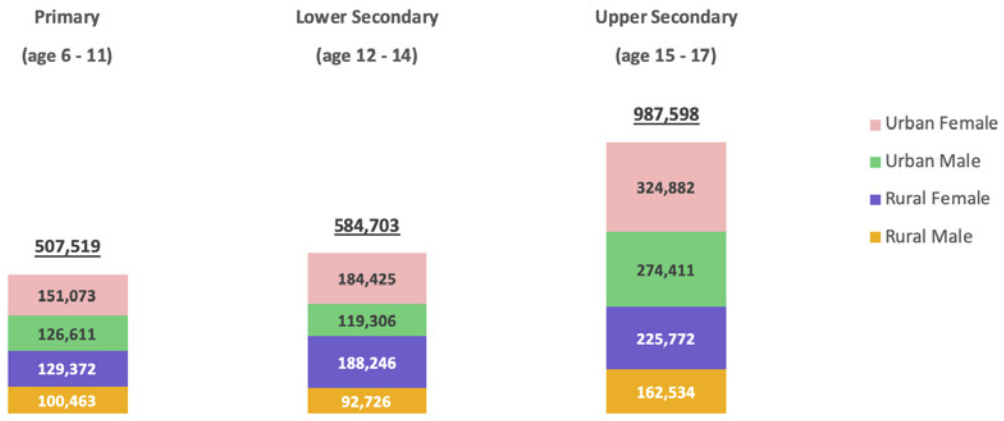
	Primary Education	Lower Secondary Education	Upper Secondary Education
Iraq	91.6	57.5	33.0
Algeria	99.6		
Egypt	98.5	90.1	67.5
Iran	99.8	90.8	69.8
Jordan	81.0	68.3	49.1
Saudi Arabia	95.1	92.8	85.1
West Bank and Gaza	97.1	96.0	68.4
MENA Average	94.9	88.7	68.1
UMIC Average	96.1	92.8	80.4

SOURCES / MICS 2018 for Iraq and World Bank EdStats database for comparator countries.

NOTES / Adjusted net attendance ratios are reported for Iraq, while adjusted net enrollment ratios are reported for comparator countries. Averages for the Middle East and North Africa (MENA) region and all Upper Middle-Income Countries (UMIC) report the total net enrollment rate.

Iraq has an estimated 2.1 million children between the ages of 6 and 17 that are out of school, nearly half of which are in the upper secondary age group. Despite recent improvements, Iraq's relatively low education participation rates translate into more than 2 million children of school age remaining out of school. Approximately one-quarter of them are of primary school age (6-11 years), one-quarter of lower secondary school age (12-14 years), and nearly half of upper secondary school age (15-17 years). 57 percent of out-of-school children live in urban areas and 58 percent are female. Gender inequities are more pronounced in rural areas, where 60 percent of out-of-school children are girls (see Figure 81).

Figure 81. **Estimated Number and Composition of School-Aged Children Out of School, 2018**



SOURCES / World Bank calculations based on CSO data and MICS 2018.

Access to pre-primary education is also low in Iraq—with only 11 percent of children 5 years of age attending early childhood education (ECE). While the pre-primary adjusted net attendance ratio for children 5 years of age was 32 percent in 2018 (in line with the MENA regional average), only 11 percent of them attended an ECE program; the remaining 21 percent of five-year-olds attended primary education (Table 9). The participation rate is even lower for younger children – on average only 2.4 percent of children aged 36-59 months (3-4 years) attended an early childhood education program in 2018. This stagnation in enrollment, during the early years, exemplifies the lost opportunities of learning and human capital development faced by Iraq.

Table 9. **Attendance in Pre-primary education by Age of Child in Iraq, 2000 - 2018**

		5 years of age	36-59 months (3-4 years) of age			
		2018	2000	2006	2011	2018
Total		10.8	3.7	2.5	3.8	2.4
Sex	Male	11.0	3.8	2.2	4.0	2.2
	Female	10.6	3.6	2.7	3.6	2.5
Area	Urban	14.3	5.2	3.6	3.3	3.4
	Rural	3.1	0.9	0.9	1.1	0.3
Wealth Index quintile	Poorest	2.7			1.1	0.5
	Second	6.4			1.1	1.1
	Middle	11.4			2.8	2.7
	Fourth	12.4			7.5	4.0
	Richest	27.5			9.8	4.6

SOURCES / MICS 2000, 2006, 2011, and 2018.

While attendance rates in primary schools have improved, completion rates have stagnated or declined over time. Iraq's primary school completion rate declined between 2006 and 2018, with only 76 percent of students completing primary education in 2018 (Table 10). At the lower secondary- and upper secondary levels, less than half of those who begin studies complete that level of education. In part, this points to capacity problems of the system in effectively absorbing the increase in enrollment by providing adequate learning for all children. These capacity problems need to be addressed if the education system aspires to move toward increasing enrollment at the secondary level, to ensure that all children not only begin but also complete secondary education.

Table 10. **Completion Rates by Level of Education in Iraq, 2006 - 2018**

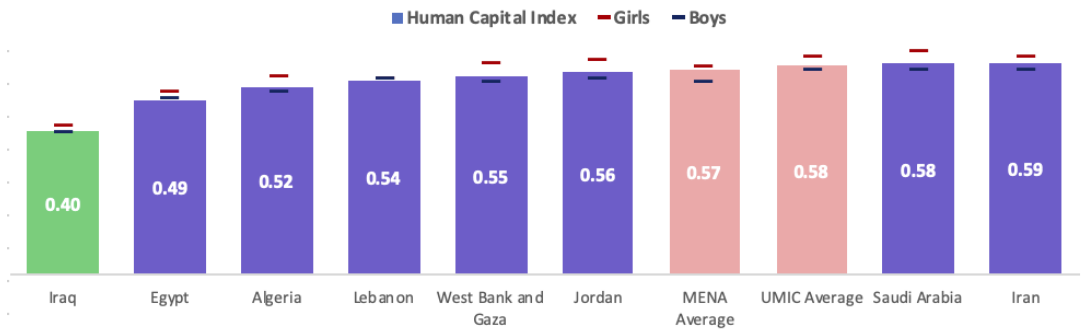
		Primary Education			Lower Secondary Education	Upper Secondary Education
		2006	2011	2018	2018	2018
Total		80.9	83.9	75.7	46.4	44.3
Sex	Male	89.1	92.6	77.9	46.2	45.2
	Female	71.8	74.8	73.2	46.6	43.3
Area	Urban	88.3	91.1	79.1	50.3	46.2
	Rural	69.4	70.1	81.0	38.4	40.2
Wealth Index quintile	Poorest		58.3	54.0	23.1	22.5
	Second		75.4	68.4	35.5	33.1
	Middle		88.9	76.9	41.1	36.9
	Fourth		101.1	86.6	56.7	57.4
	Richest		106.7	92.5	72.7	67.0

SOURCES / MICS 2006, 2011, and 2018.

Sector outcomes: Student learning outcomes

The low Human Capital Index (HCI) value for Iraq, the second lowest in the MENA region at 0.41, is largely attributable to poor education outcomes (see Figure 82). The HCI measures the amount of human capital that a child born today can expect to attain by age 18, conveying the productivity of the next generation of a country's workforce—a key contributor to economic growth. Iraq's HCI is among the lowest in the world and is lower than any country in the MENA region except Yemen.[109] A child born in Iraq today will reach, on average, only 41 percent of her potential productivity when she grows up, as measured by the World Bank's Human Capital Index (HCI)—the average for the MENA region is 57 percent.[110] Iraq's poor performance on the HCI is largely attributed to the education outcomes calculated for the purpose of generating the index. Based on current enrollment rates, an Iraqi child can expect to complete only 6.9 years of schooling, compared to 11.3 in MENA as a whole. However, when taking into account the amount of learning that actually takes place, this child will achieve only 4.0 learning-adjusted years of schooling (LAYS) by age 18, versus a MENA average of 7.6 LAYS. As a result, 2.9 of the 6.9 years spent in school by an average Iraqi child (40 percent), is "wasted" and fails to translate into productive skills when the child enters the workforce.[111]

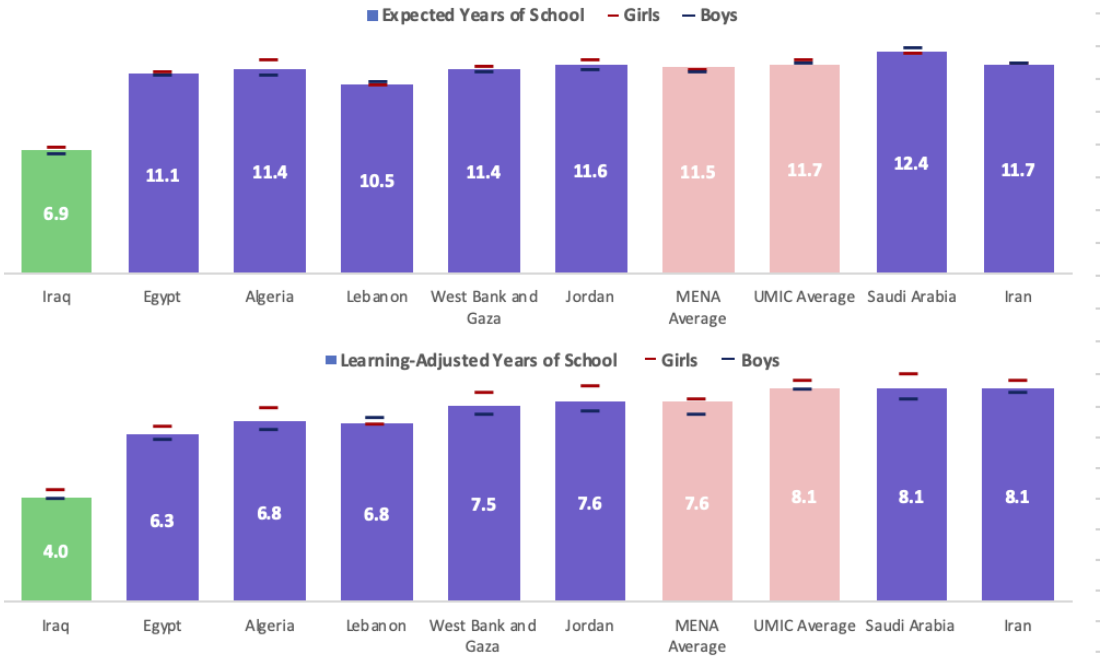
Figure 82. **Key human capital outcomes: Iraq and selected countries, 2020**



109. Iraq is in in the bottom quartile of countries worldwide ranked by HCI (World Bank, 2020).

110. The HCI measures the amount of human capital that a child born today can expect to attain by age 18, conveying the productivity of the next generation of workers compared to a benchmark of complete education and full health.

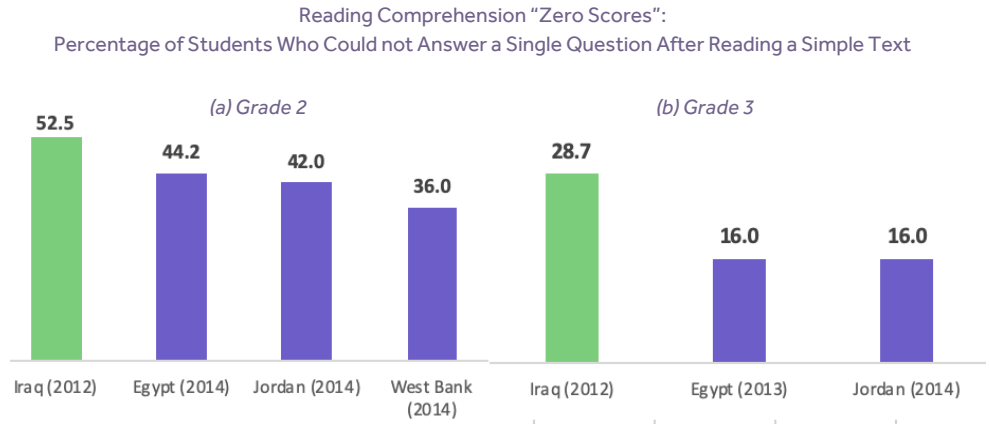
111. World Bank Group, *Human Capital Project Country Brief and Data Sheet for Iraq* (2020). http://www.worldbank.org/en/publication/human-capital



SOURCE / World Bank Human Capital Project 2020.

The limited data available on educational achievement points to very low learning levels in the early years. The little reliable data that exists on learning outcomes and quality of education suggests that learning gaps start early in life and amplify along Iraqi children's educational trajectory. In the 2018 MICS survey, only 13 percent of 3- to 5-year-old children were developmentally on track to acquire literacy and numeracy skills, a decline from 18 percent in 2011. The country's only participation in an internationally-comparable learning assessment was the 2012 Early Grade Reading Assessment (EGRA) and Early Grade Mathematics Assessment (EGMA), whose findings were used to calculate the learning outcomes used for the HCI.[112] The EGRA results showed that 53 percent of grade 2 students and 29 percent of grade 3 students in Iraq, after reading an age-appropriate text, could not answer a single reading comprehension question—a higher percentage than other MENA countries (see Figure 83). While these "zero scores" reveal important gaps for the lowest performing students, around 72 percent of grade 3 students in Iraq could not answer more than 2 out of 5 reading comprehension questions correctly, compared to 47 percent of grade 3 students in Jordan. This indicates that early learning gaps exist for nearly all students, not just for those who performed poorly. These struggles to build key foundational skills early in life linger on and contribute to high rates of illiteracy (44 percent) and unemployment (17 percent) among Iraqi youth.[113]

Figure 83. **Early grade reading assessment (EGRA) results: Iraq and selected countries, 2012/14**



SOURCE / USAID Early Grade Reading Barometer.

112. The 2012 EGRA and EGMA were carried out in 6 governorates: Al-Anbar, Baghdad, Karbala, Maysan, Al-Najaf, and Wasit. The sample, which was not nationally representative, included 54 schools (9 per governorate), covering a total of 1153 students in grades 2 and 3. See: https://earlygradereadingbarometer.org/iraq/countries/home

113. UNESCO and ILO estimates, respectively, for youth aged 15 to 24 years.

Impact of fragility and conflict on service delivery

Service delivery in the education sector has been severely impacted by ongoing fragility and years of conflict, with the COVID-19 crisis and closure of schools in early 2020 putting an additional strain on the education system. Even before the most recent health crisis (COVID-19), more than two million children found themselves out of school due to a variety of reasons—including conflict, displacement, and key education input shortages, which are exacerbated by conflict-induced damages to school infrastructure. In addition, education service delivery has been negatively impacted by outdated curricula, limited teacher professional development, inadequate support for school counselors and remedial learning programs, and limited programs for at-risk youth. For example, while the instructional time in Iraq is already short by international standards, 25 percent of primary and lower-secondary school-aged students reported, in 2018, that they could not attend class due to the absence of a teacher, or due to school closure during the last year.[114] Most schools operate in multiple shifts, largely as a result of the infrastructure damages and infrastructure shortages, resulting in low time on task and learning.[115]

The reconstruction (infrastructure) and recovery (education service delivery) costs in the seven governates directly affected by the recent ISIS-created conflict are estimated at 5.4 trillion IQD (4.6 billion USD). In 2018, the World Bank supported the Government of Iraq (GoI) to assess the effects of the ISIS-created conflict (2014-2017) on service delivery and conducted a preliminary estimation of Iraq's recovery and reconstruction needs.[116] The regional, ISIS-created conflict in Iraq resulted in a humanitarian crisis marked by the internal displacement of 3.2 million Iraqis and the destruction of infrastructure and services in the former ISIS-occupied areas. Analysis was conducted across 16 cities within the seven directly affected governorates, where only 38 percent of the total school infrastructure remained undamaged and 18 percent completely destroyed. The total cost of conflict damages to the education sector in the seven governorates was estimated at 2.8 trillion IQD (2.4 billion USD), with total reconstruction and recovery needs estimated at 5.4 trillion IQD (4.6 billion USD).[117] The reconstruction needs (4.9 trillion IQD) account for infrastructure damages, while the recovery needs account for restoration of learning and teaching services (490 billion IQD) such as teacher professional development, learning materials, programs for remedial learning and out of school youth, and overall sector support.

While there is an urgent need for reconstruction and recovery investments in the governorates directly affected by the conflict, shortages of key education inputs persist across the country. Iraq's Ministry of Education (MOE) estimates an infrastructure gap of more than 10,000 school buildings.[118] However, while the demand for new school infrastructure far exceeds the supply, and long-term investment in new and rehabilitated facilities is required, the short-term focus is on using the available resources more efficiently to provide more equitable access and better-quality learning for all children.

3.2 Adequacy of Education Spending

Amount of public spending on education and recent trends

The total amount of public spending on education in Iraq is difficult to calculate for several reasons. First, the Ministry of Finance of Iraq and the Ministry of Finance and Economy of the Kurdistan Regional Government do not publish their budget expenditure figures together in one consolidated report. Second, the MOF in Baghdad does not yet utilize a functional classification in its budget that would allow for all expenditures related to the education sector to be readily- identified and quantified across all spending units. Third, the decentralization of

114. UNICEF, Multiple Indicator Cluster Survey (MICS) for Iraq (2018).

115. In Iraq, instruction time for grades 2 and 3 in single- and double-shift schools ranges from 543 to 634 hours (USAID, 2012), while compulsory instruction time for primary students in OECD countries averages 794 hours per year (OECD, 2014).

116. World Bank Group, Damage and Needs Assessment of Seven Directly Affected Governorates. Draft (January 17, 2018).

117. Damages and losses were calculated according to the actual or estimated pre-2014 baseline of the physical assets. Damage data was assessed up to early December 2017.

118. Estimates provided by the MOE in April 2020 to the World Bank team.

the majority of public education spending to the governorate level, beginning in 2017, has resulted in increased fragmentation in the reporting of education spending across different spending units.

The World Bank team, in partnership with the MOF in Baghdad, has undertaken a major data collection effort for this report to compile data on government education expenditure in Iraq with an unprecedented level of detail. For the purpose of the analysis presented in this section, and working within the current constraints, the team made the following choices to address the challenges discussed in the previous paragraph:

- The main source of data for public expenditure on education in Iraq is the MOF in Baghdad. Advantages of this approach include the ability to formulate a relatively consistent time series of spending data covering 2009-2019. Disadvantages include the need to exclude public education spending, within the KRI, from this analysis.

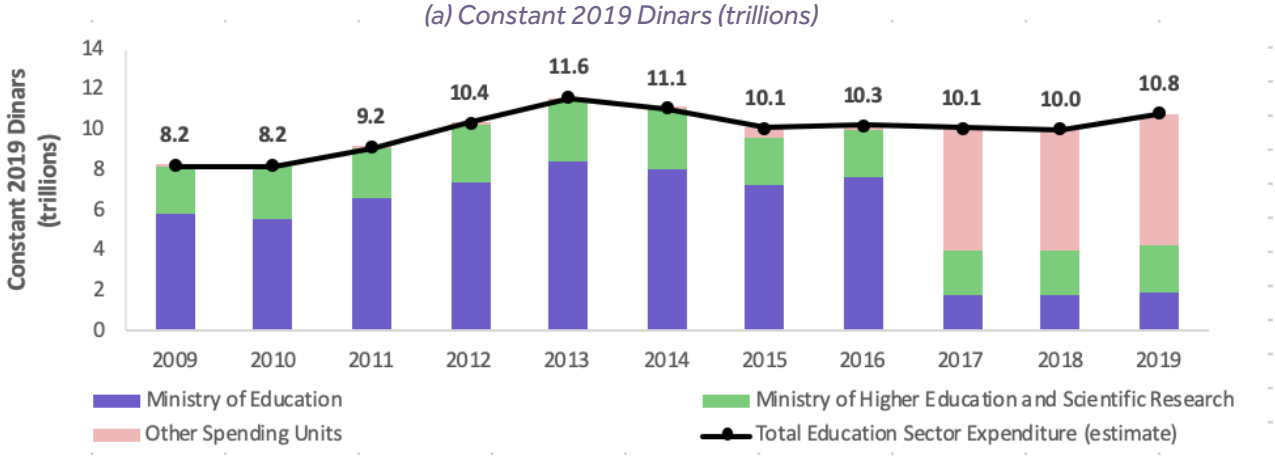
- Education sector expenditure is defined as follows: all recurrent- and investment budget expenditure incurred by the Ministry of Education, the Ministry of Higher Education and Scientific Research, and Other Spending Units. The latter category includes: (i) investment budget expenditures classified as "education sector", incurred by other ministries and agencies starting in 2015 (at present, recurrent budget expenditures are not classified by sector); [119] (ii) expenditures incurred by other central ministry units and departments outside the MOE and MOHESR that provide education and training services;[120] and (iii) expenditures incurred by governorate Directorates of Education (DOEs) in 2017-19 and governorate Departments of Labor and Vocational Training (DOLVTs) in 2018-19.

Following the methodology described above, the World Bank estimates that the total amount of government spending on education in Iraq (excluding KRI) in 2019 was 10.8 trillion IQD. This represents a slight increase from 10.0 trillion in 2018, but a decline from approximately 11.6 trillion in 2013, adjusting for inflation (see Figure 84a).

As a share of total government expenditure and GDP, education spending has seen a steady decline. The education sector accounted for approximately 9.7 percent of total government spending (excluding KRI) in 2019—down from 12.5 percent in 2018 and 13.6 percent in 2016 (see Figure 84b). In relation to GDP, total education sector expenditure has declined in recent years: from 5.1 percent in 2009 to 4.9 percent in 2016 and 3.9 percent in 2019 (see Figure 84c). It is important to note that the GDP figure used in the denominator of this calculation includes KRI, while the education expenditure figure in the numerator does not. Therefore, government expenditure on education expressed as percent of GDP, computed here, cannot be compared directly to figures reported for other countries.

Figure 84. **Estimated government expenditure on education in Iraq (excluding KRI), 2009-2019**

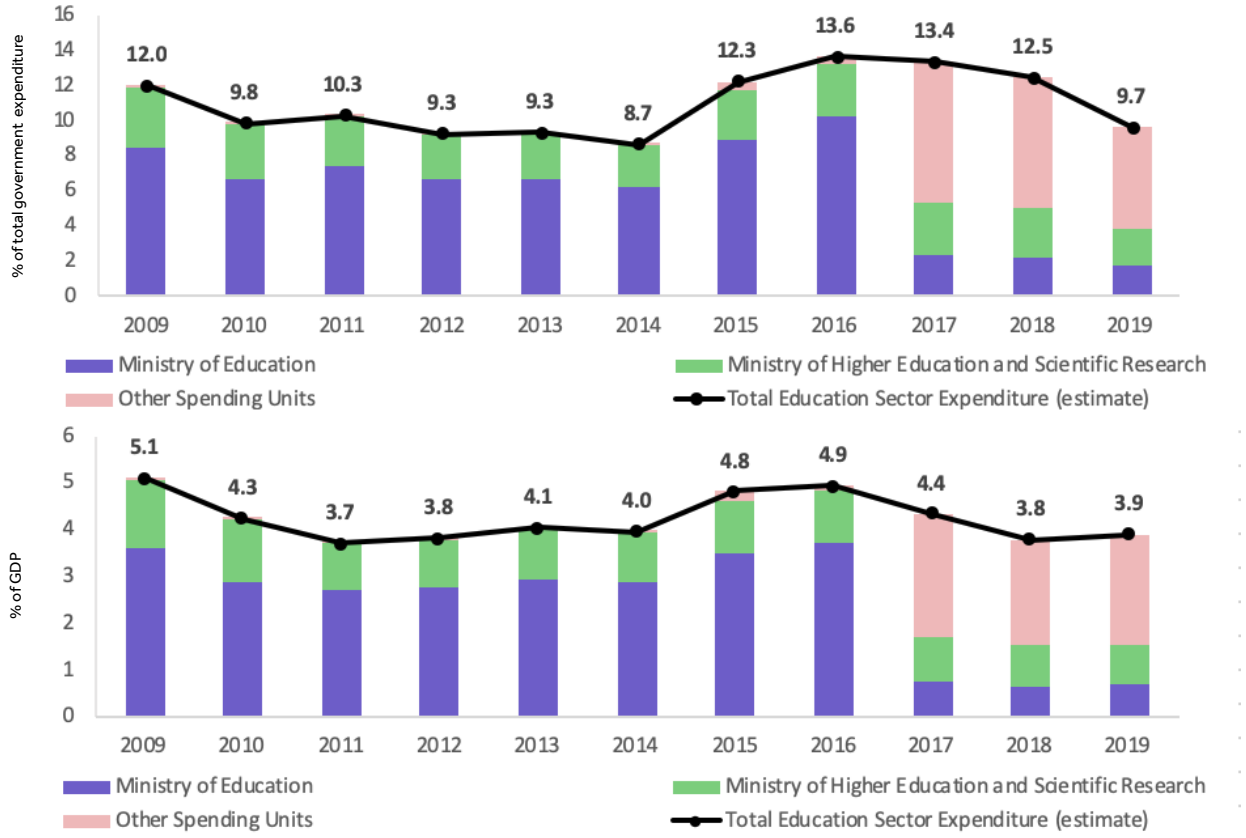
(a) Constant 2019 Dinars (trillions)



119. Investment budget expenditure incurred by the MOE and MOHESR between 2015 and 2019 associated with a sector other than education—such as the agricultural, industrial, transportation and communications, and buildings and services sectors—is excluded from this analysis.

120. These include training centers, colleges, universities, and academies under the Council of Ministers, Ministry of Finance, Ministry of Interior, Ministry of Labor and Social Affairs, Ministry of Defense, Ministry of Agriculture, and Ministry of Electricity.

(b) Percent of total governement expenditure



(c) Percent of GDP

SOURCES / World Bank calculations based on expenditure data provided by Iraq's MOF and downloaded from the MOF Open Budget Survey website (http://mof.gov.iq/obs/en/Pages/obsDocuments.aspx), and macroeconomic data (GDP and inflation) from World Development Indicators (WDI). For 2019, macroeconomic figures are estimates from: World Bank. 2020. "Iraq Economic Monitor, Spring 2020: Navigating the Perfect Storm (Redux)." https://openknowledge.worldbank.org/handle/10986/33676.

NOTES / [1] Expenditure data for 2009-2014 consists of final closed accounts audited by the Federal Board of Supreme Audit (FBSA); for 2015-2016, initial closed accounts audited by the FBSA (subject to change); for 2017-2019, accumulated actual expenditure from year-end reports up to December of each year (not closed accounts and not audited by the FBSA, subject to change).

[2] GDP figures cover all of Iraq, including KRI; however, government expenditure figures are for the Iraq Centre only, excluding KRI.

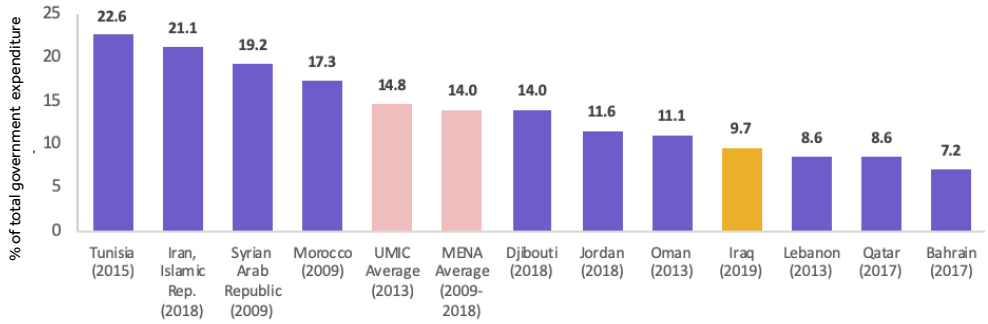
Recent declines in public education financing now put Iraq's share of total government expenditure devoted to education (excluding KRI) below regional comparators. Iraq's 9.7 percent of government spending trails the MENA regional average of 14.0 percent and the average for the world's upper-middle income economies of 14.8 percent (see Figure 85).[121] Iraq's share is higher than Lebanon (8.6 percent), where much of education is privately financed, as well as higher than some countries of the Gulf Cooperation Council, but lower than regional leaders Tunisia (22.6 percent) and Iran (21.1 percent). Iraq also falls short of the minimum international benchmarks for public education financing set out in the Education 2030 Incheon Declaration, agreed upon at the World Education Forum 2015 in Incheon, South Korea. This guiding document calls for countries to allocate at least 4 to 6 percent of GDP and/or at least 15 to 20 of total public expenditure to education in order to achieve Sustainable Development Goal 4 (SDG4) of inclusive and equitable quality education.[122]

121. Based on the latest data reported in EdStats. For reference, the average share of GDP spent on education by governments in the MENA region is around 4.4 percent, while the upper-middle income country average is 4.6 percent.

See: Safaa El Tayeb El-Kogali and Caroline Krafft, Expectations and Aspirations*: A New Framework for Education in the Middle East and North Africa* (Washington, DC: World Bank, 2020). https://openknowledge.worldbank.org/handle/10986/30618.

122. UNESCO, *Education 2030: Incheon Declaration and Framework for Action for the implementation of Sustainable Development Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all* (2016). https://unesdoc.unesco.org/ark:/48223/pf0000245656.

Figure 85. **Education as percent of total government expenditure in the MENA Region, 2019 (or latest available year)**



SOURCE / World Bank EdStats database.

NOTES / Data for Iraq are from 2019 and from the latest available year between 2009 and 2018 for other countries. MENA Average is computed based on the latest year's figures for each country in the Middle East and North Africa region reporting data since 2009. UMIC Average as reported in EdStats for Upper-Middle Income Countries.

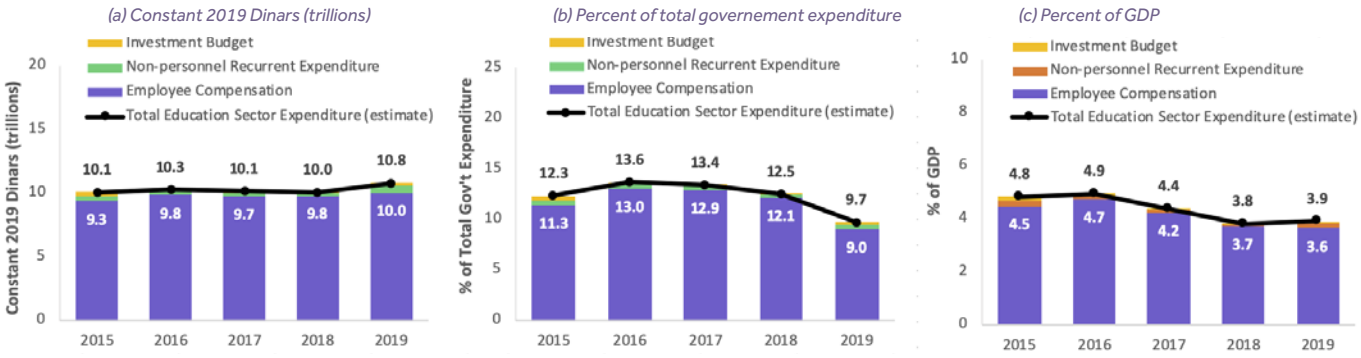
Composition of public spending on education and recent trends

Public spending on education in Iraq is heavily dominated by wage bill expenditure. Of the estimated 10.8 trillion dinars spent on education in 2019, 93 percent paid for employee compensation. The education sector wage bill (excluding KRI) accounted for 3.6 percent of Iraq's total GDP in 2019, while all other education sector expenditure (excluding KRI) accounted for less than 0.3 percent of GDP. This pattern has been consistent in recent years, with non-wage education spending ranging between 3 and 7 percent of all education expenditure since 2015 (see Figure 86).

Non-personnel recurrent expenses and capital investment accounted for 4.7 percent and 2.4 percent, respectively, of total education sector spending in 2019 (see Figure 87a). More than half (60 percent) of the education wage bill was financed by the governorates and other spending units, while the MOE financed about 17 percent and the MOHESR about 23 percent (see Figure 87b). In non-personnel recurrent expenditure, the MOE financed 41 percent, the MOHESR financed 20 percent, and the governorates and other units accounted for the remaining 39 percent (see Figure 87c).

Capital investment in education has been under-resourced for a long time. In light of the destruction and deterioration of education infrastructure, resulting from years of conflict and violence, the need for a scaling-up of public investment in education is critical for effective service delivery (see Section 2). However, the education sector consistently accounts for 1 percent or less of Iraq's total investment budget expenditure. Of the 24.4 trillion IQD spent through Iraq's entire investment budget in 2019, only 256 billion went to the education sector. In previous years, the education sector's share of all investment budget expenditure ranged from 0.5 percent in 2017 to 1.3 percent in 2015. The MOE reported virtually no investment budget expenditure in 2017 and 2018 and less than 24 billion IQD in 2019, accounting for only 9 percent of an already small education sector investment budget. The MOHESR accounted for less than 4 percent of education investment expenditure in both 2018 and 2019, while other spending units (including the governorates, the Council of Ministers, and other ministries and agencies) spent the vast majority of the education investment budget—96 percent in 2018 and 87 percent in 2019.

Figure 86. **Government expenditure on education by budget and expenditure Type, 2015-2019**

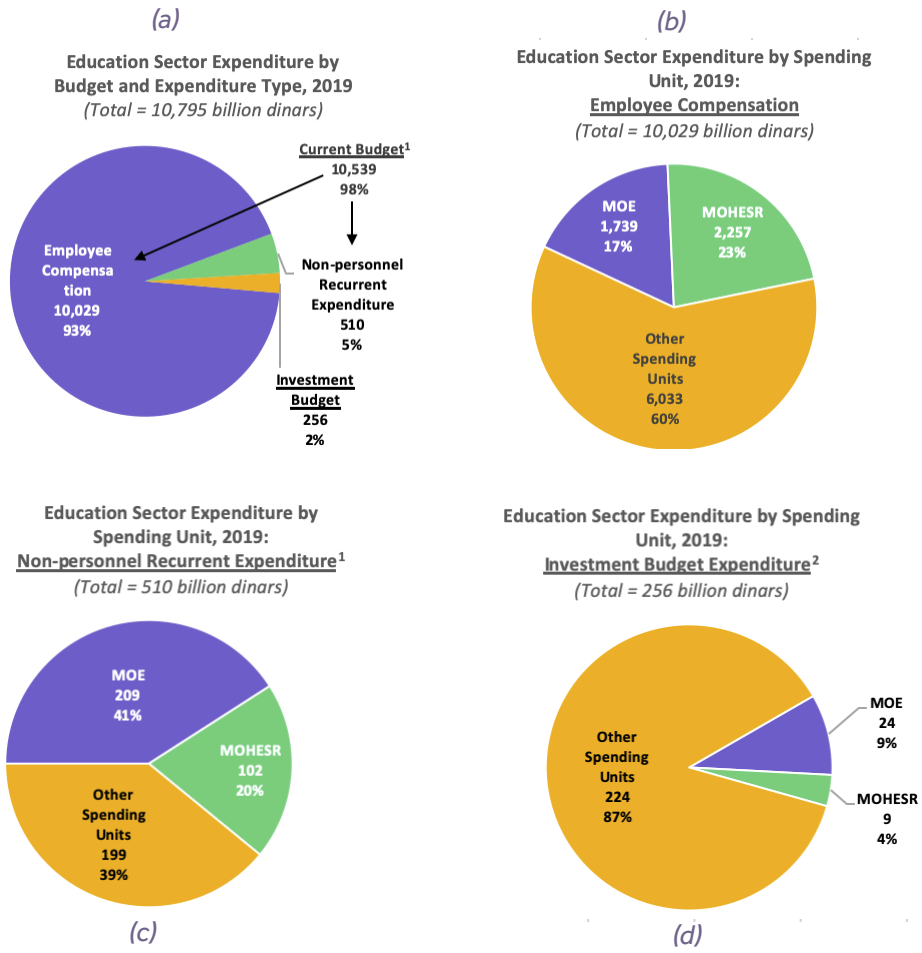


SOURCES / World Bank calculations based on expenditure data provided by Iraq's MOF and downloaded from the MOF Open Budget Survey website (http://mof.gov.iq/obs/en/Pages/obsDocuments.aspx) and macroeconomic data (GDP and inflation) from World Development Indicators (WDI). For 2019, macroeconomic figures are estimates from: World Bank. 2020. "Iraq Economic Monitor, Spring 2020: Navigating the Perfect Storm (Redux)." https://openknowledge.worldbank.org/handle/10986/33676.

NOTES / [1] Expenditure data for 2015-2016 consists of initial closed accounts audited by the Federal Board of Supreme Audit (FBSA) (subject to change); for 2017-2019, accumulated actual expenditure from year-end reports up to December of each year (not closed accounts and not audited by the FBSA, subject to change).

[2] GDP figures cover all of Iraq, including KRI; however, government expenditure figures are for the Iraq Centre only, excluding KRI.

Figure 87. **Government expenditure on education by spending unit and expenditure type, 2019**



SOURCES / World Bank calculations based on expenditure data provided by Iraq's MOF and downloaded from the MOF Open Budget Survey website (http://mof.gov.iq/obs/en/Pages/obsDocuments.aspx).

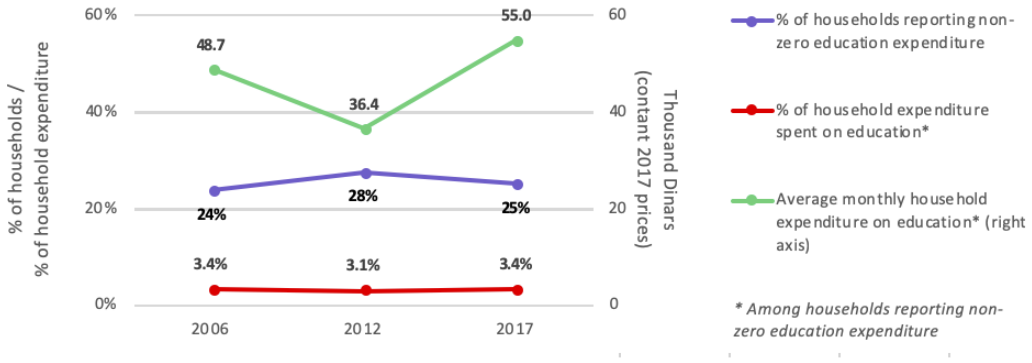
NOTES / [1] Recurrent budget non-personnel recurrent expenditure includes approximately 52.5 billion dinars of capital expenditure for 2019.

[2] Investment budget excludes approximately 10.5 billion dinars classified as non-education sector expenditure for 2019.

Amount of household spending

One in four Iraqi households report spending out of pocket on education. According to the 2017 Survey of Well-being via Instant and Frequent Tracking (SWIFT), conducted by the World Bank, 25 percent of households reported incurring education-related expenditures in the month prior to the survey. This share is comparable to the 24 percent and 28 percent of households who reported non-zero education expenditures in the 2006-07 and 2012-13 rounds, respectively, of the Iraq Household Socio-Economic Survey (IHSES). Among the households reporting non-zero education expenditures, the average monthly amount was 55,000 IQD per household, or around 3.4 percent of total household expenditure. This share has been consistent since 2006 (see Figure 88).

Figure 88. **Estimates of household education expenditure, 2006-2017**



SOURCE / World Bank calculations based on IHSES 2006-07, IHSES 2012-13, and SWIFT 2017.

The estimates above suggest a total volume of household education expenditure of up to 0.5 percent of GDP. From the 2017 SWIFT survey, it is possible to account for around 93 billion dinars in total household expenditure on education during the month prior to the survey. Assuming this level of spending remains constant throughout the year (over the course of 10-12 months), it suggests an annualized level of household spending in the range of 0.4-0.5 percent of GDP for 2006, 0.3-0.4 percent for 2012, and 0.4-0.5 percent for 2017. Although lower than elsewhere in MENA, this level of private spending is higher than most OECD countries.[124] When compared to the public budget's education spending of around 4 percent of GDP, this suggests a substantial contribution of households to the financing of education in Iraq.

Ensuring adequacy of public spending in education

Adequacy of education spending refers to the amount of funding required in the short term to meet a country's education goals as expressed through the government's existing policies and standards.[125] Iraq's National Development Plan for 2018-2022 lays out 16 main objectives to be achieved in the education sector across key areas, which include: "improving the education system efficiency to generate decent work, accelerating economic growth, ensuring balance between education outputs and labor market requirements by focusing on vocational education and training, developing lifelong learning opportunities, improving education quality by focusing on institutional performance efficiency, teacher training, modernizing curricula, and establishing an efficient health system nationwide without undermining the rights of the vulnerable and marginalized groups."[126] The National Education Strategy 2020-2030 is currently under development with an emphasis on: "align[ing] sector goals to the government's development vision as outlined in its National Development Plan 2018-2022 and ... ensuring access to safe and equitable education and improved learning."

124. Safaa El Tayeb El-Kogali and Caroline Krafft, Expectations and Aspirations: A New Framework for Education in the Middle East and North Africa (Washington, DC: World Bank, 2020). https://openknowledge.worldbank.org/handle/10986/30618.

125. World Bank Group, Education Public Expenditure Review Guidelines (Washington, DC.: World Bank, 2017). https://openknowledge.worldbank.org/handle/10986/27264.

126. Republic of Iraq Ministry of Planning, "National Development Plan 2018-2022"(2018). https://mop.gov.iq/en/page/view/details?id=88.

Compared to other countries in the region, Iraq spends a lower proportion of its public budget on education—less than 10 percent. Personnel costs account for a relatively high share of total education spending, at 93 percent. Capital investment in particular is severely underfunded at a time when existing infrastructure shortages continue to inhibit the government's ability to deliver education services in many parts of Iraq.

To meet the existing challenges and future aspirations of Iraq's education sector, the following measures can be considered for ensuring adequacy of public education spending:

a) Prioritizing investments in education in the medium term among the many competing priorities for scarce budget resources during the COVID-19 recovery phase. In light of the tightening fiscal space precipitated by the ongoing crisis, many countries around the world have chosen to protect or expand public education budgets as part of their crisis response measures.[127] Given the low level of public education spending observed in Iraq before the crisis, a policy of protecting the overall volume of public education spending in the short term and expanding it in the medium term should be considered for protecting critical investments in human capital.

b) Expanding the share of non-salary expenditure in the education budget, particularly in the form of capital investment in education. This requires both increasing the investment budget allocations dedicated to the education sector in the medium term, as well as improving the efficiency of budget disbursement and utilization (see section 6 below).

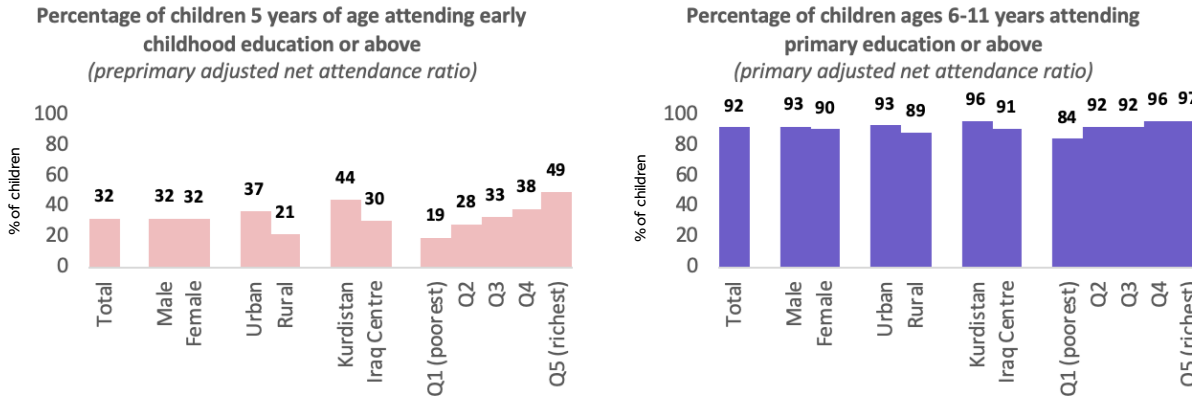
c) Targeting additional public resources to areas and groups of greatest need. Above all, priority attention should be given to enrolling the more than 2 million children of school age who are currently out of school, while expanding access to pre-primary and secondary education in the medium term. Investment budget resources should be targeted toward governorates with the greatest infrastructure deficit, while parts of the population underserved by the current education system should be the focus of targeted measures aimed at expanding school enrollment (see section 4 below).

3.3 Equity of Education Spending

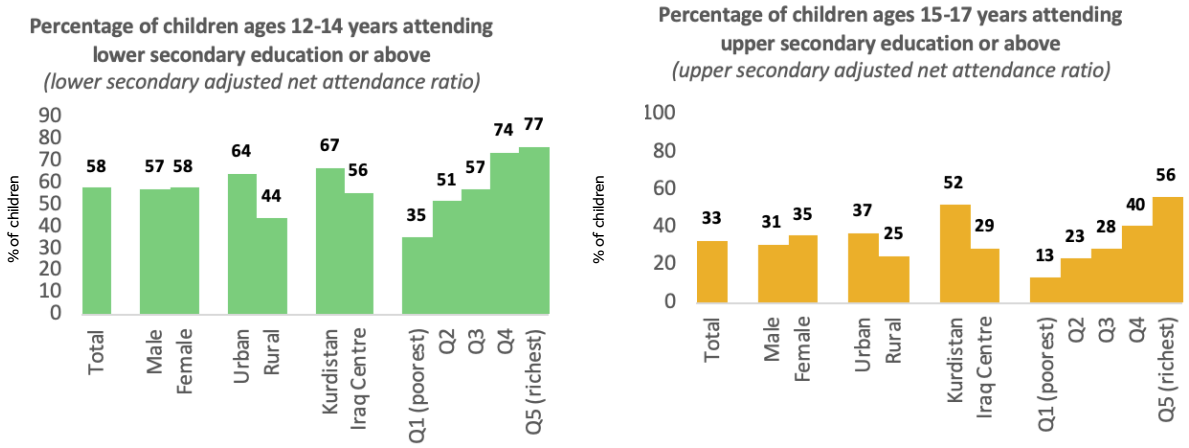
Equity in access to education

Access to and participation in education, as viewed through adjusted net attendance ratios (a proxy for enrollment rates), is uneven across Iraq. Attendance ratios reported in the MICS 2018 household survey show substantial disparities in access by location and socioeconomic status for most levels of education. Gender disparities in access are relatively small, as are disparities within primary education (Figure 89).

Figure 89. **Adjusted net attendance ratios by level of education, 2018**



127. International Monetary Fund, "Policy Responses to COVID-19: Policy Tracker" (Washington, DC.: IMF, 2020). https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19.



SOURCE / MICS 2018.

NOTES / Adjusted net attendance ratios are calculated as the percentage of children in the appropriate age group associated with each respective level of education attending that level of education or above. Pre-primary adjusted net attendance rate includes children 5 years of age who attend primary education.

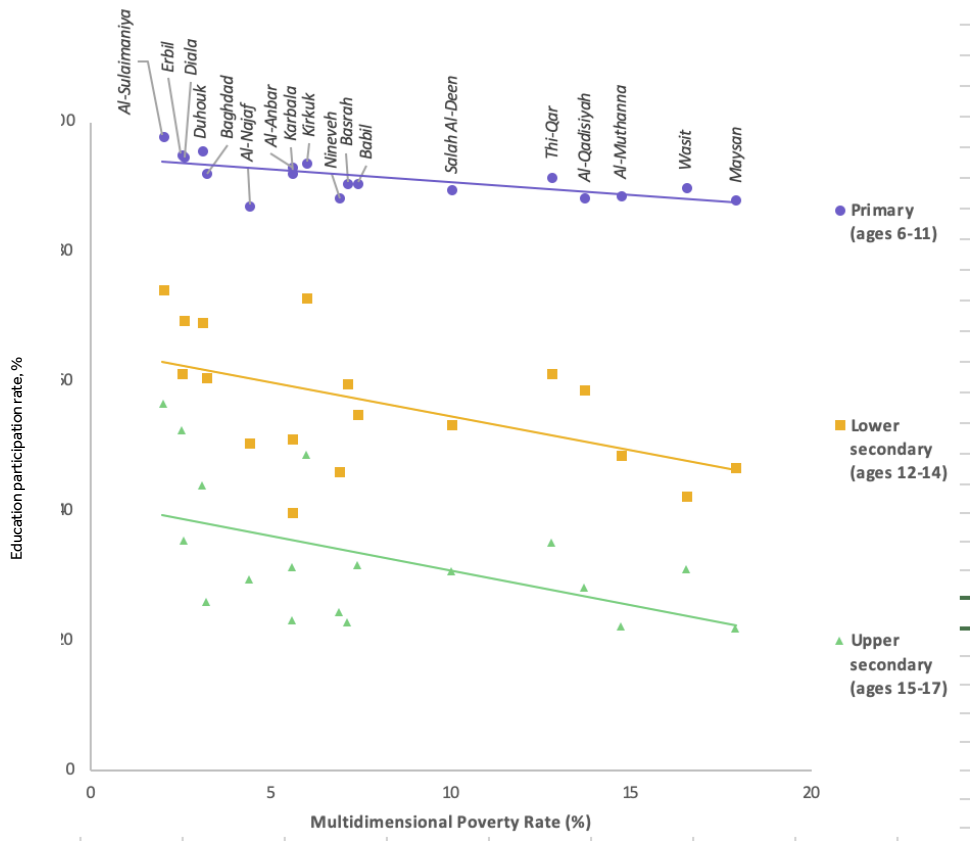
Educational inequalities start early in life, with only 2.4 percent of 3-4-year-old children attending early childhood education (ECE). Only 0.3 percent of rural children attend ECE, a share one-tenth that of their urban peers (3.4 percent). A similar gap is observed between children who come from households in the top wealth index quintile (of whom 4.6 percent attend ECE) and those from the bottom wealth quintile (0.5 percent in ECE). Boys and girls attend ECE at similar rates: 2.2 percent and 2.5 percent, respectively. By age five, 32 percent of Iraqi children participate in organized education: one-third attend kindergarten and two-thirds are in primary education. The attendance rate is nearly twice as high for urban children (37 percent) as rural ones (21 percent), and 2.5 times higher for children from households in the top socioeconomic quintile (49 percent) than for those in the bottom quintile (19 percent). Boys and girls are equally likely to be enrolled at age five.

Participation in primary education is generally high across the board but drops off sharply after that. 92 percent of all 6-11-year-old children attend school. This ratio , however, is slightly lower for girls (90 percent), children in rural areas (89 percent), and those from the poorest households (84 percent). In lower secondary education, however, only 35 percent of children from poor families attend school (compared to 77 percent of children from the wealthiest families) and only 44 percent of rural children do the same (compared to 64 percent of urban children). At the upper secondary level, where only one-third of Iraqi 15-17-year-olds have access to education, the participation rate is lowest among youth from the most disadvantaged households (13 percent) and those who live in rural areas (25 percent).

Differences in access to education across governorates are correlated with multidimensional poverty, especially at the lower secondary and upper secondary levels. While primary school attendance rates are universally high across all parts of Iraq, participation in secondary education decreases as the multidimensional poverty headcount rate of the governorate increases (by an average of one percentage point for each percentage point increase in multidimensional poverty).[128] The governorates with the lowest poverty rates (Al-Sulaimaniya, Erbil, Diala, Duhouk) also have the highest participation rates in lower- and upper secondary education. While governorates experiencing higher poverty (Maysan, Wasit, and Al-Muthanna) generally see lower education participation rates. Some governorates are outliers: Al-Anbar has below-average poverty but relatively low secondary-education participation rates; the same is true for Baghdad in upper secondary education. On the other hand, Thi-Qar and Kirkuk, based on their observed poverty rates, tend to "outperform" their expected levels of school attendance (Figure 90).

128. Multidimensional poverty estimates by governorate are taken from: Claudia Noumedem Temgoua, Dhiraj Sharma, and Matthew Wai-Poi, "Multidimensional Poverty Assessment of Internally Displaced Persons in Iraq" Policy Research Working Paper No. 9203 (Washington, DC.: World Bank, 2020). https://openknowledge.worldbank.org/handle/10986/33577.

Figure 90. **Education participation and multidimensional poverty by governorate**

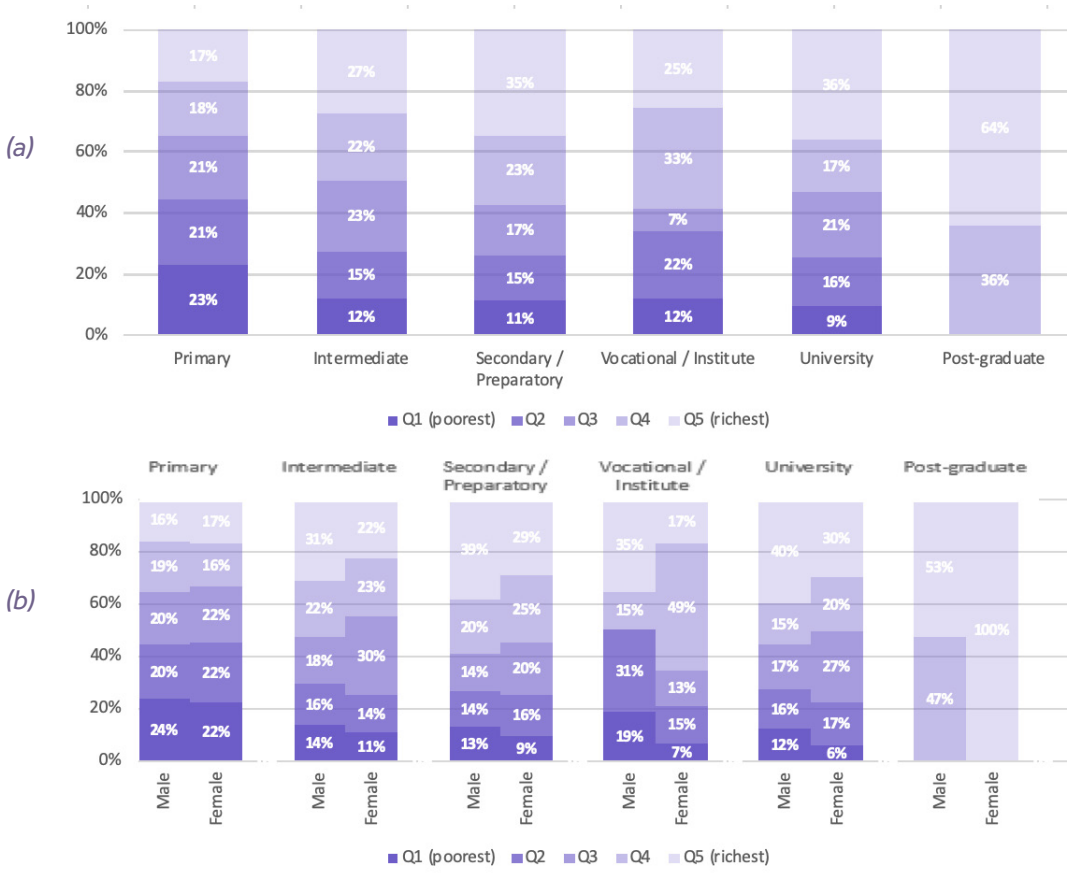


SOURCES / MICS 2018 and World Bank multidimensional poverty estimates based on IHSES 2012-13 from Noumedem Temgoua, Sharma, and Wai-Poi (2020).

From the household side, the benefit incidence of access to education is generally progressive at the primary level but more regressive at higher levels of education. Forty-four percent of Iraq's primary school students come from households in the bottom 40 percent of the consumption distribution. This share drops to 25-27 percent for lower secondary-, upper secondary-, and university education. Access to vocational education is slightly less regressive, with 34 percent of students coming from the bottom two socioeconomic quintiles. However, the top two socioeconomic quintiles account for half of all students or more at every level above primary education. In post-graduate education, the household survey (with an admittedly small sample) picks up no students from the bottom three socioeconomic quintiles (Figure 91a).

Disaggregating by gender, the access picture looks even less rosy for girls. While girls and boys from the bottom two socioeconomic quintiles enroll in primary education at equal rates (accounting for 44 percent of total enrollment), subsequent levels of education see disadvantaged girls from this group accounting for only 21-25 percent of all female enrollment. The survey sample shows no female students from outside the top socioeconomic quintile enrolled in post-graduate education (Figure 91b). University education appears to be a luxury despite being mostly public; as such, it penalizes women: only 23 percent of female students enrolled in university come from households in the bottom two socioeconomic quintiles. The pattern is similar in lower secondary (intermediate), upper secondary (preparatory), and vocational education. This leads to more women than men failing to complete upper secondary education and contributes to relatively low female labor force participation rates.

Figure 91. **Enrollment by level of education and household consumption quintile, 2017**



SOURCE/ World Bank calculations based on SWIFT 2017

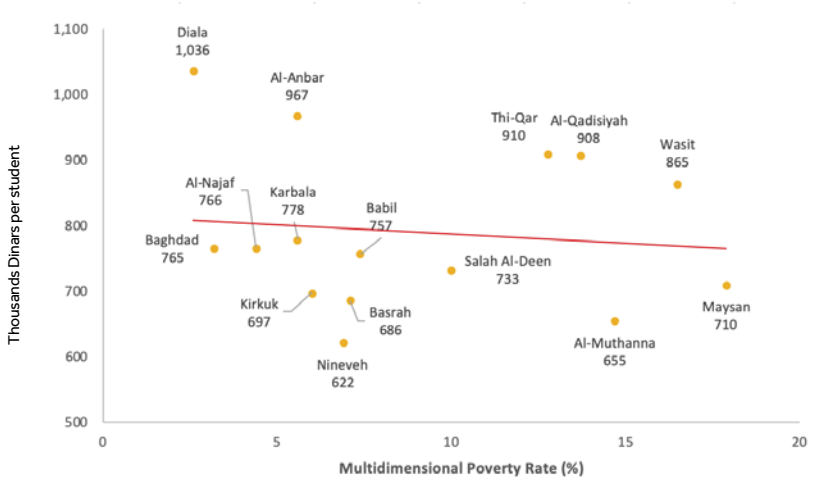
Equity in government spending on education by governorate

Three-quarters of all education spending in Iraq is channeled through the 20 general directorates of education at the governorate level. Four of these general directorates—Nineveh, Kirkuk, Salah Al-Deen, and Al-Anbar—are included in the MOE budget. The rest were financed through the budgets of the regional authorities of their respective governorates. In both cases, the amounts spent by the general education directorates allow us to quantify the total amount of recurrent budget expenditure associated with pre-university education in each governorate.[129] These amounts can then be linked with other characteristics at the governorate level, such as the measure of multidimensional poverty introduced above.

The amount of recurrent budget expenditure on pre-university education spent per student can be considered the unit cost of education provision in each governorate. This unit cost varies widely within Iraq, from 622 thousand IQD per student in Nineveh to 1,036 thousand IQD in Diala, for 2018, the last year for which governorate-level student enrollment data is available. Per-student spending levels do not correlate closely with the level of multidimensional poverty observed in the governorates (Figure 92). High spending levels are observed in both rich and poor governorates, as are low spending levels. For example, Maysan, the governorate with the highest rate of multidimensional poverty, spent 710 thousand dinars per student in pre-university education during 2018, a level similar to (but slightly lower than) Baghdad's 765 thousand IQD per student. At the same time, Diala governorate had both the highest level of per-student spending and the lowest rate of multidimensional poverty. Together with the benefit incidence analysis of enrollment presented above, one can conclude that Iraq's public education spending is neither progressive in ensuring access to education for the poorest households nor in targeting scarce public resources toward the neediest governorates.

129. On the other hand, a substantial proportion of investment budget expenditure and expenditure on higher education is not easily identified with particular governorates.

Figure 92. **Units costs of pre-university education and multidimensional poverty by governorate**



SOURCES / World Bank calculations based on expenditure data provided by Iraq 's MOF and downloaded from the MOF Open Budget Survey website (http://mof.gov.iq/obs/en/Pages/obsDocuments.aspx); enrollment data from Iraq's CSO (http://cosit.gov.iq/?option=com_content&view=article&id=987&catid=87&lang=ar and http://www.cosit.gov.iq/ar/2015-11-23-08-09-54); and World Bank multidimensional poverty estimates based on IHSES 2012-13 from Noumedem Temgoua, Sharma, and Wai-Poi (2020).

NOTES / [1] Governorates of Nineveh, Salah Al-Deen, Kirkuk, and Al-Anbar were financed from the MOE budget in 2018.
[2] Investment budget expenditure of education directorates within Baghdad was calculated in proportion to each directorate's share of total students in government schools for all of Baghdad.

Equity in household spending on education

Wealthier households and those living in urban areas are more likely to spend out of pocket on education. While one in four Iraqi households reported private expenditure on education in the 2017 SWIFT survey, this share was as high as 44 percent for households in the top socioeconomic quintile (Q5), versus 10 percent for households in the bottom quintile. Urban households were slightly more likely to spend on education than rural households: 27 percent versus 20 percent (Figure 93a).

Both the share of household expenditure going to education and the total amount were larger for the wealthier households. Among the households who reported spending money on education, the average share of household expenditure was 3.4 percent. This share ranged from 3.2 to 4.1 percent for the top four consumption quintiles (Q2-Q5); households in the bottom quintile (Q1), however, reported spending, on average, 2.0 percent on education. Urban households (3.4 percent) and rural households (3.0 percent) directed similar shares of total household expenditure to education (Figure 93b).

Among the one-quarter of households who reported spending out of pocket on education, wealthier families spent nearly four times more, in absolute terms, than poorer ones.[130] Households in the top quintile (Q5) spent, on average, 73,800 dinars per month on education, compared to the 19,700 dinars spent by the households in the bottom consumption quintile (Q1). Urban households spent 50 percent more than rural households: 58,400 IQD versus 39,600 IQD per month (Figure 93c).

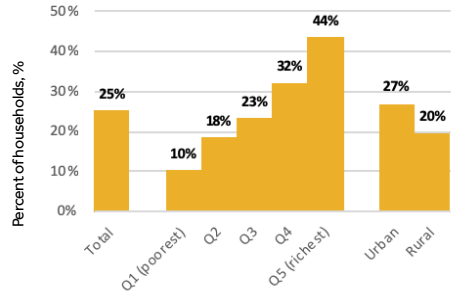
On a per-student basis, the gap between the rich and poor was largest in university education. Among households reporting out-of-pocket spending, spending on one university student was about seven times higher than spending on one student in primary schools across Iraq. This ratio was comparable across different consumption quintiles: households in the first quintile (Q1) spent approximately 900 dinars per month per primary school student and 6,100 dinars per month per university student. Meanwhile, households in the fourth quintile (Q4) spent 16,200 dinars per primary school student and 112,800 per university student (Figure 93d).[131]

130. When wealthier households' higher propensity to spend out of pocket on education is taken into account, the ratio between the top and bottom quintiles increases to roughly 16:1—i.e., wealthier households were four times more likely to spend, and they spent, on average, four times as much as poorer households.

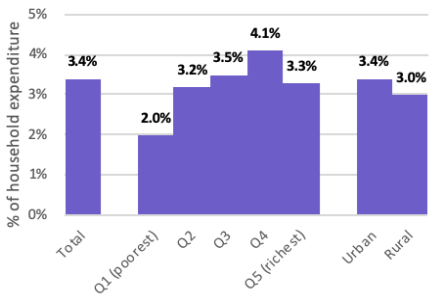
131. Expenditure per university student could not be reliably calculated for Q5 households.

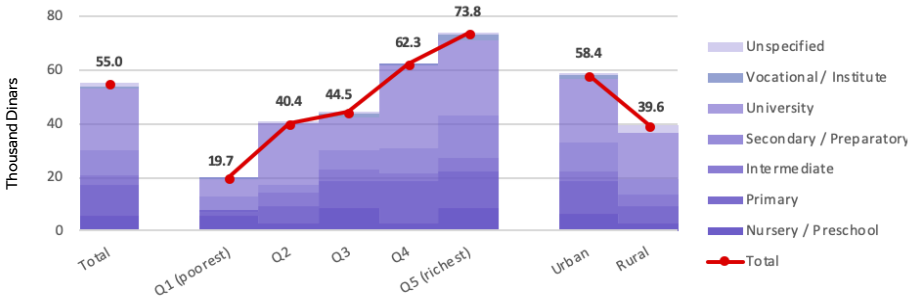
Figure 93. **Household education expenditure by consumption quintile and location, 2017**

(a) Proportion of households reporting non-zero out-of-pocket education expenditure

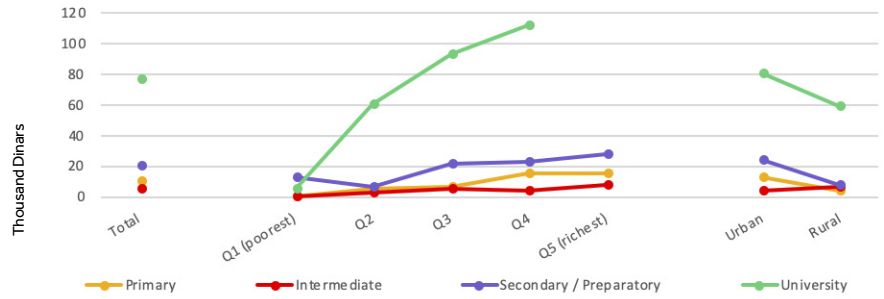


(b) Household expenditure share on education (among households reporting non-zero education expenditure)





(c) Average monthly education expenditure per household by level of education



(d) Average monthly education expenditure per student by level of education

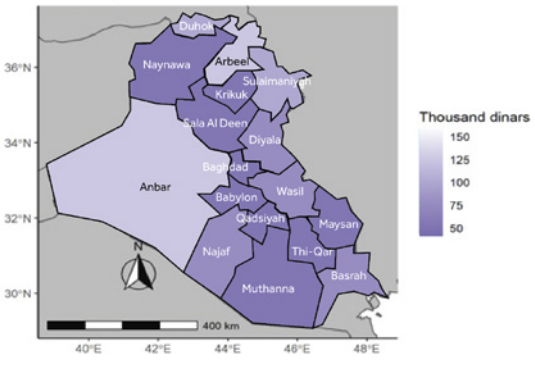
SOURCE / World Bank calculations based on SWIFT 2017.

NOTE / Expenditure per university student not shown among fifth-quintile households due to data issues.

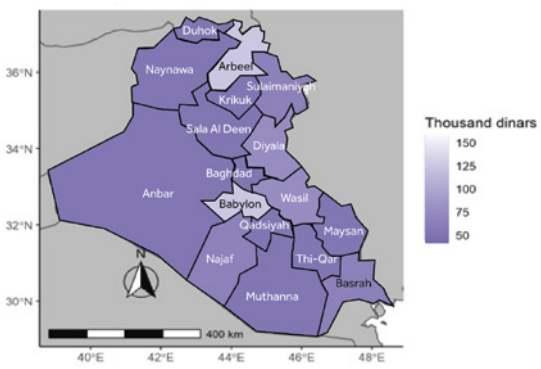
Important distinctions were also observed in household education expenditure across governorates of Iraq. While households in Anbar were most likely to report spending out of pocket on education (53 percent), the largest amount of average spending per child was observed in Babil and Erbil governorates: 18,000 and 16,400 IQD per month, respectively (Figure 94).

Figure 94. **Household education expenditure by governorate, 2017**

(a) Proportion of households reporting non-zero out-of pocket education expenditure



(b) Average monthly education expenditure per child, thousand dinars *(among all households)*



SOURCE / World Bank calculations based on SWIFT 2017.

Enhancing equity of public spending in education

Despite relatively equitable access to primary education across Iraq, large inequities in pre-primary and secondary education continue to hamper broad-based development of human capital. Rural children have lower access to education than their urban peers, while only 19 percent of children from the poorest households of pre-primary age, and 13 percent of upper secondary age attend school. Wealthier families are more likely to spend out of pocket on education, and their children are more likely to progress through the education system and enroll in university.

Among the areas of reform that can be considered for improving educational equity are the following:

a) Expanding access to pre-primary and secondary education, especially among children from lower income households and in rural areas. The aforementioned infrastructure shortages continue to play an important role in preventing all children from enrolling in school, especially in rural areas and in governorates affected by conflict (where school closures have been common). Nevertheless, a better understanding of demand-side constraints to enrollment is also needed. [132]

b) Increasing education budget resources available to governorates with high poverty, low enrollment, and low public-education spending. Several governorates, such as Maysan, Al-Muthanna, and Salah Al-Deen, have above-average levels of multidimensional poverty and below-average levels of recurrent spending per student in pre-university education. These governorates, among others, also have below-average rates of enrollment at all levels of education. Ensuring that recent decentralization reforms do not leave children in high-poverty governorates at a financial disadvantage, due to lower levels of education, spending at the local level should be a central topic of discussion between the authorities in Baghdad and those in the respective governorates.

c) Ensuring that inability to pay out of pocket for education-related costs does not prevent children from low-income households from enrolling and progressing through the education system. Though public education is officially free in Iraq, one in four households reports some level of out-of-pocket spending. While university education accounts for the largest portion of private spending, households also report paying for lower levels of education. Not surprisingly, wealthier families are able to pay more than poorer ones, giving their children a better chance to progress through the various levels of education and enroll in university. Costs of school materials and supplies, transportation, and private tutoring can be prohibitively expensive for low-income families, causing their children to drop out of education at higher frequencies than their wealthier peers.

3.4 Efficiency of Education Spending

Education efficiency at system level

Efficiency of public expenditure on education can be assessed in a number of different ways. This section looks at two types of efficiency in relation to Iraq's education expenditure at system level: allocative efficiency between levels of education and technical efficiency in the linkage between education expenditure and results. The first analysis asks the question: are public expenditures in Iraq allocated in an optimal manner across levels of education? (A similar question is analyzed across governorates and other dimensions in the Equity section above.) The second analysis asks: do public expenditures on education translate effectively into education system outcomes?

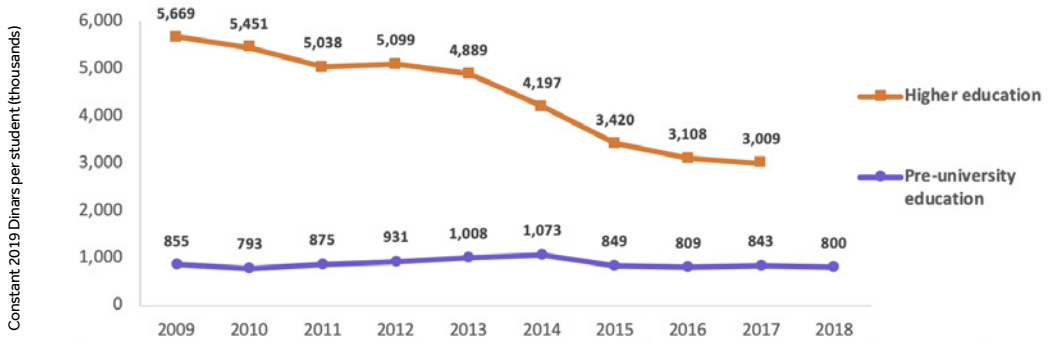
Allocative efficiency across levels of education is an important concept in most education systems. In countries where access to pre-university education (pre-primary, primary, and secondary education) is far from universal, but where substantial amounts of public resources are devoted to higher education, allocative efficiency across levels of education tends to be suboptimal. When children from poorer households drop out

132. Among the known constraints to education demand-wise are access to Iraq's largely outdated and rigid curriculum; larger opportunity costs of attending school at higher levels of education; and lack of widely available, high-quality vocational education opportunities. Other demand-side constraints, apart from economic considerations, include security considerations, especially for girls and in rural, liberated areas. .

from formal schooling in large numbers due to a lack of available teachers, facilities, or other factors, and scarce public resources are used to finance the university education of students from wealthier families, society as a whole fails to maximize the return on its public education investment in terms of future workforce productivity.

In Iraq, higher education accounts for roughly 22 percent of all government expenditure on education, according to 2019 data from the Ministry of Finance. However, it also enrolls only 8 percent of the country's students. The level of spending per student, therefore, is substantially higher in the university sector than in pre-university education. For 2017, the most recent year for which complete enrollment and expenditure data is available, Iraq's unit cost (expenditure per student) in higher education was approximately 3.5 times higher than the unit cost in pre-university education (Figure 95). This ratio is substantially lower in other countries of the MENA region—ranging from around 1.3 in Oman to 3.0 in Lebanon. In comparison, the average ratio among mainly high-income countries of the OECD is around 1.7 times.

Figure 95. **Government expenditure by level of education, 2015-2019**

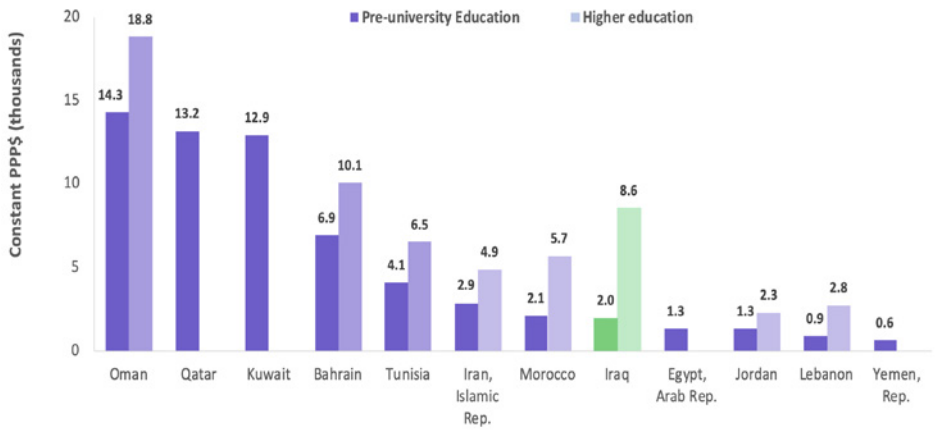


SOURCES / World Bank calculations based on expenditure data provided by Iraq's MOF and downloaded from the MOF Open Budget Survey website (http://mof.gov.iq/obs/en/Pages/obsDocuments.aspx) and enrollment data from Iraq's CSO (http://cosit.gov.iq/?option=com_content&view=article&id=987&catid=87&lang=ar and http://www.cosit.gov.iq/ar/2015-11-23-08-09-54).

NOTES / Expenditures for 2014-2016 exclude governorates for which enrollment data was not available (Nineveh and Al-Anbar).

In constant-dollar terms adjusted for purchasing power parity (PPP), Iraq spends more on its average university student than any country in the MENA region outside the GCC. At around 8,600 PPP-adjusted constant dollars, Iraq's public spending per student in higher education exceeds that of its neighbors, trailing only Oman and Bahrain among MENA countries with available data. On the other hand, Iraq's public spending per student in pre-university education is lower than most countries in the region, at around 2,000 PPP-adjusted constant dollars (Figure 96).

Figure 96. **Government expenditure per student by level of education, 2018 (or latest available year)**



SOURCES /World Bank EdStats database for all countries except Iraq. For Iraq: World Bank calculations based on expenditure data provided by

Iraq's MOF and downloaded from the MOF Open Budget Survey website (http://mof.gov.iq/obs/en/Pages/obsDocuments.aspx); enrollment data from Iraq's CSO (http://cosit.gov.iq/?option=com_content&view=article&id=987&catid=87&lang=ar and http://www.cosit.gov.iq/ar/2015-11-23-08-09-54); and macroeconomic data from World Development Indicators (WDI).

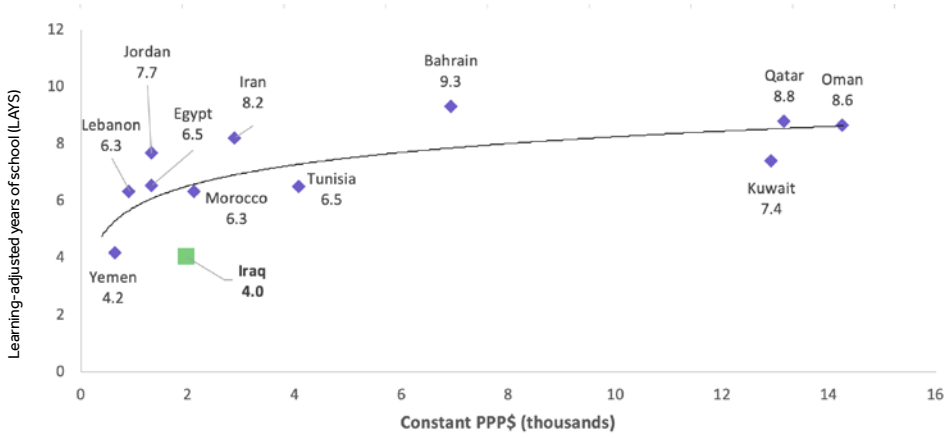
NOTES / [1] Data for each country is for the latest year available in EdStats for each level of education between 2009 and 2018 (Bahrain: 2013 and 2015; Egypt: 2017; Iran: 2017; Jordan: 2018; Kuwait: 2014; Lebanon: 2013; Morocco: 2009, 2012, and 2013; Oman: 2016 and 2017; Qatar: 2009; Tunisia: 2009 and 2015; Yemen: 2011). For Iraq: data is from World Bank calculations for 2018 (primary and secondary education) and 2017 (tertiary education).

[2] Pre-university education is computed as the simple average of primary and secondary education figures reported in EdStats; higher education refers to tertiary education figures reported in EdStats.

[3] Higher education expenditure is not available for Egypt, Kuwait, Qatar, and Yemen. For Lebanon: pre-university education includes secondary education only.

In addition to relatively low spending per student in pre-university education, Iraq exhibits relatively low technical efficiency in translating this spending into education sector outcomes. Although Iraq's lack of participation in large-scale systems of international student assessment makes such comparisons difficult, learning-adjusted years of schooling (LAYS), introduced in section 2 above, can be used as a meaningful measure of Iraq's education sector outcomes that is comparable across countries. When compared with other MENA countries, Iraq's relatively low per-student spending, coupled with its regionally low LAYS indicator of 4.0 learning-adjusted years per student, puts Iraq substantially below the curve of "expected" education sector performance. Even countries with lower per-student public spending levels—like Egypt, Jordan, and Lebanon (where most pre-university spending comes from private sources)—achieve higher levels of educational outcomes: 6.3, 7.6, and 6.8 LAYS, respectively (Figure 97). This shows that while higher levels of public spending may be necessary at the pre-university level, they are no guarantee of better education sector performance. Other countries in Iraq's neighborhood and other parts of the world (with admittedly different histories and local contexts) have been able to achieve more with less, so reallocations within the existing budget envelope may also enhance education sector efficiency.

Figure 97. **Government expenditure per student in pre-university education and learning-adjusted years of schooling (LAYS), 2020 (or latest available year)**



SOURCES / LAYS data from the World Bank Human Capital Project: http://www.worldbank.org/en/publication/human-capital.

Expenditure data from the World Bank EdStats database for all countries except Iraq. For Iraq: World Bank calculations based on expenditure data provided by Iraq's MOF and downloaded from the MOF Open Budget Survey website (http://mof.gov.iq/obs/en/Pages/obsDocuments.aspx); enrollment data from Iraq's CSO (http://cosit.gov.iq/?option=com_content&view=article&id=987&catid=87&lang=ar and http://www.cosit.gov.iq/ar/2015-11-23-08-09-54); and macroeconomic data from World Development Indicators (WDI).

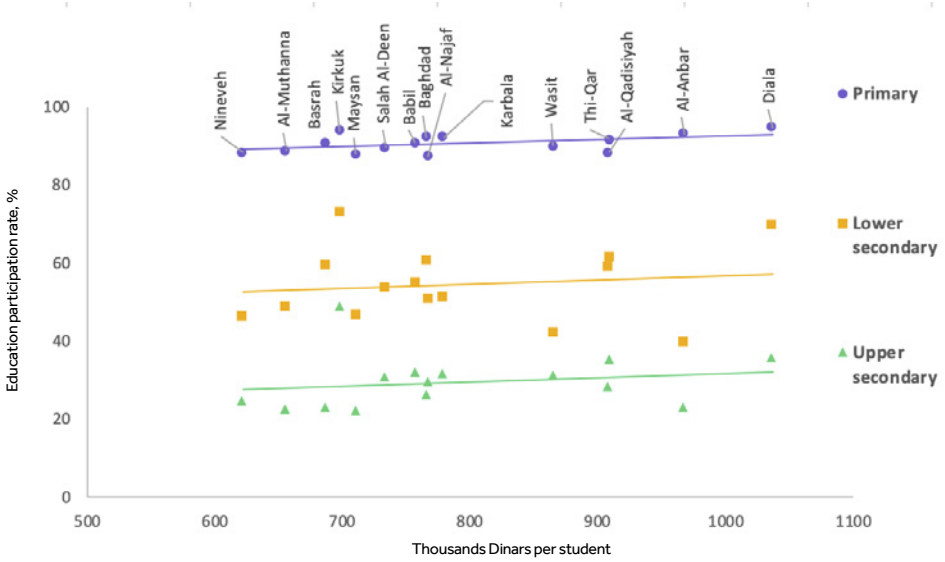
Education efficiency at subnational level

Important variations exist across Iraqi governorates in how public expenditures translate into education results at the pre-university level. Unfortunately, reliable data on student learning outcomes is not available at the subnational level in Iraq. Nevertheless, education participation rates (as measured through net attendance

rates in MICS) can be used to assess how well the education system in different governorates performs in ensuring children's access to each level of education.

As noted above, participation rates in primary education vary little across Iraq's governorates, but enrollment in secondary education shows substantial variation. Some of the governorates with the highest participation rates, according to MICS 2018, actually spend below-average amounts per student. Most notable among these is Kirkuk, whose 73-percent enrollment in lower secondary education and 49 percent in upper secondary are the highest in Iraq (excluding KRI) against below-average expenditure of only 697 thousand dinars per student in 2018. On the other hand, Wasit governorate's 865 thousand IQD per student translates into a lower secondary enrollment rate of only 42 percent—among the lowest in Iraq. Only sparsely populated Al-Anbar, where unit costs of education provision are understandably higher (at 967 thousand dinars per student) has a lower level of enrollment at a higher unit cost in lower secondary- (40 percent) and upper secondary education (23 percent). Overall, per-student expenditure shows a weak correlation with enrollment rates at the secondary education level, with larger outlays not generally associated with much higher enrollment rates (Figure 98).

Figure 98. **Education participation and government expenditure per student by governorate, 2018**



SOURCES / MICS 2018 and World Bank calculations based on expenditure data provided by Iraq's MOF and downloaded from the MOF Open Budget Survey website (http://mof.gov.iq/obs/en/Pages/obsDocuments.aspx) and enrollment data from Iraq's CSO (http://cosit.gov.iq/?option=com_content&view=article&id=987&catid=87&lang=ar and http://www.cosit.gov.iq/ar/2015-11-23-08-09-54).

NOTES / Expenditure per student combines primary, lower secondary, and upper secondary education. KRI governorates are excluded due to lack of expenditure data.

Improving efficiency of public spending in education

There are several pressing efficiency challenges facing Iraq's education sector. Allocative efficiency across levels of education can be improved by reducing the gap in spending per student observed between pre-university and higher education. Similarly, the allocation between expenditure categories can be rebalanced by increasing the share of non-personnel spending in the education budget. Subnational differences in unit costs also point to a difference in levels of technical efficiency among Iraq's governorates. Lastly, low levels of budget execution in certain expenditure categories can be addressed (as discussed in section 6 below) to improve the overall sector efficiency and performance.

Among the possible measures to consider for addressing the existing efficiency challenges in education spending are the following:

a) Increasing public spending per student in pre-university education relative to higher education in the medium term, while seeking internal efficiency savings in the short term. The unit cost in the pre-university sector has remained flat in inflation-adjusted terms over the last decade below a level that could be considered optimal.

Meanwhile, the higher education sector sees four times as much public investment per student as pre-university education—a ratio far higher than that of other MENA countries, which ranges from 1.3 to 3.0, and the OECD average of 1.7. While the higher education unit cost has been declining, spending in the pre-university sector has failed to grow at a rate faster than the increase in enrollment. Prioritization of additional public resources for investments in preschool, primary, and secondary education should, therefore, be high on the agenda in the foreseeable future.

b) Better measurement of education performance and efficiency across governorates. Without reliable information on the quality of education across Iraq's schools, it is difficult to reach conclusions about the technical efficiency (or "value for money") achieved in pre-university education. Nevertheless, differences in enrollment rates (especially in secondary education) that are uncorrelated with the amounts spent per student in the various governorates suggest a weak link between spending and results. Neighboring governorates such as Babil and Diala can achieve similar levels of student enrollment (between 31-35 percent in upper secondary education) with vastly different levels of spending: 757 thousand IQD per student in Babil versus 1,037 thousand in Diala. More robust measurement of student learning outcomes and their determinants is needed to assess why certain governorates appear to achieve more value with the same amount of money and vice versa.

c) Improving efficiency in budget execution and resource utilization to achieve education results requires building capacity within the various spending units (especially at the governorate level). This issue is analyzed in greater detail in section 6 below.

3.5 Institutional Arrangements and Public Financial Management (PFM)

Institutional arrangements and decentralization

The education sector in Iraq is overseen primarily by its two main sectoral ministries: the Ministry of Education (MOE) and the Ministry of Higher Education and Scientific Research (MOHESR).[133] The MOE is responsible for the supervision and partial financing of pre-primary, primary, and secondary education. Meanwhile, the MOHESR is responsible for the supervision and financing of most public higher-education institutions. A small number of colleges, universities, and training centers report to, and are financed by other sectoral ministries (such as the Ministries of Agriculture, Defense, Electricity, Finance, and Interior, as well as the Council of Ministers). Most public spending on pre-university general and vocational education, however, is now within the purview of the Directorates of Education (DOEs) and Departments of Labor and Vocational Training (DOLVTs), which report to Iraq's governorate authorities.

Since 2017, the responsibility for overseeing and financing pre-university education has been largely decentralized to the governorate level. As of 2019, 16 DOEs in 11 of Iraq's governorates[134] account for three-quarters of all recurrent budget expenditure on pre-university education. One-quarter remains with the MOE, which continues to finance and oversee pre-university education in 4 governorates: Al-Anbar, Kirkuk, Nineveh, and Salah Al-Deen. Education in the remaining 4 of Iraq's 19 governorates falls under the authority of the KRG MOE. Similarly, the responsibility for financing vocational education and training was decentralized to the DOLVTs at the governorate level in 2018 before being recentralized to the Ministry of Labor and Social Affairs (MOLSA) at the end of 2019.

The recent decentralization reforms have important implications for the equity, efficiency, and effectiveness of education financing in Iraq. Law 21—initially passed in 2008 and subsequently amended in 2011, 2013, and 2018—governs the decentralization of some functions of federal ministries, including of the Ministry

133. The analysis in this section excludes the Kurdistan Region of Iraq (KRI) whose education sector is overseen mainly by the MOE and MOHESR of the Kurdistan Regional Government (KRG).

134. Responsibility for the Baghdad governorate is divided among 6 DOEs

of Education. However, its implementation to date has been partial and uneven, leading to much confusion over reporting lines and areas of responsibility. In practice, as of 2020, most governorate administrations have the ability to prioritize and execute investment budgets in education, while the decisions regarding recurrent budget priorities remain largely with the MOE. Although the governorates have received considerable authority over the area of human resource management, the number of teaching positions for each governorate is determined by the MOE. Governorate DOEs report substantial budget rigidities, from being unable to shift resources between budget lines to requiring higher-level approval for nearly all procurement. Some DOEs report not being able to delegate budget execution and procurement to schools because of strict MOF regulations, thus preventing local authorities from being able to respond effectively to local needs.[135]

Service delivery and education system management

With investment needs in education exceeding available budget allocations, addressing inefficiencies in education service delivery can help improve quality of education under the current budget constraints. This requires addressing existing inefficiencies in resource utilization and strengthening the way in which the education system is managed for results at each level of public administration. In particular, a more coherent and strategic approach is needed in the areas of school infrastructure management, teacher allocation, and evidence-based decision making.

School infrastructure demand is largely exceeding supply, resulting in an inadequate learning environment for many children across Iraq. The MOE estimates that around 9,963 more school buildings will be required to address the current shortages in education infrastructure and growth in the student population.[136] This infrastructure gap represents 70 percent more school buildings than are currently operating.[137] In addition, around 50 percent (6,961 school buildings) of the 14,032 school buildings currently in operation require rehabilitation and resources to meet basic safety and hygiene standards such as sewer systems. A streamlined school construction mechanism and utilization framework of existing infrastructure is currently being developed to address the most pressing shortages.

Evidence-based policies to better utilize existing infrastructure can help address the most pressing shortages in the short term. The MOE, with technical support from the World Bank, is currently developing a comprehensive school construction policy, which will focus on developing national school-construction-planning guidelines and data-driven prioritization mechanisms for school construction. The school construction policy will make recommendations for more efficient utilization of current school infrastructure and propose a set of norms for different types of schools, taking into account local needs.[138] The standardization of facilities is expected to lead to substantial cost savings as well as to greater parity in the schools being constructed across the country, ensuring minimum quality standards. Moreover, the promotion of local construction materials and methodologies will lead to more cost-effective use of resources and is likely to generate jobs for local labor according to their skills.

Teacher allocation and management is another area in which current policies and practices result in inequitable and inefficient use of resources. It has long been established that teachers are the most important school-based factor contributing to student learning.[139] And, as shown above, wage bill expenditures account for more than 93 percent of all education budget spending in Iraq. Nevertheless, inefficiencies in teacher deployment and an increasing rural-urban divide in the distribution of experienced teachers have been among the primary challenges facing Iraq's education system. A large gap in student-teacher ratios is observed between rural and

135. A more detailed discussion can be found in World Bank, "Decentralization of Iraq's education sector" draft note (October 2020).

136. Factoring in deterioration of buildings and population growth, the need of school buildings is increasing by approximately 3% per year.

137. Excluding universities.

138. These norms will address the location of schools in order to balance commute and distance between them, as well as develop streamlined norms for the number and sizes of classrooms and other areas, also taking into account disaster resilience and local needs.

139. A large body of international evidence shows that teacher effectiveness is the most important school-related factor influencing student achievement; see for example:

- Erik A. Hanushek, "Why Quality Matters in Education," Finance and Development 42 (2): 15–19, 2005.

- Linda Darling-Hammond, "Teacher Quality and Student Achievement: A Review of State Policy Evidence," Education Policy Analysis Archives 8 (1): 1–44,2020. doi: 10.14507/epaa.v8n1.2000.

urban areas, as well as across governorates of Iraq.[140] Recent MOE data also suggests differences in content and duration of teacher training across governorates.[141] Shortages of qualified teachers also affect the quality of education service delivery. Of all teachers at the primary education level in Iraq, an estimated 71 percent do not hold a university degree.

Misallocation of teachers is caused by various governance, political, and economic factors. Among these are: Iraq's fragile context with its large number of IDPs; recent decentralization reforms, which resulted in ambiguity regarding decision-making processes; many teachers preferring to work in urban areas, resulting in less experienced teachers being assigned to remote or rural postings; and politization of the teacher allocation process, including corruption.

A more rational and transparent mechanism for allocating teachers across governorates and schools is needed to ensure more equitable and efficient use of the education system's most valuable resource. The MOE, with support from the World Bank, is currently developing a teacher allocation policy that analyzes past and current teacher-allocation practices (including challenges and opportunities associated with decentralization) and provides a framework for teacher allocation in line with international best practices. Once implemented, the teacher allocation policy will aim to ensure more equitable and efficient distribution and use of human resources under the current budget constraints.

Lastly, more rigorous data-driven education system monitoring is needed to identify strengths and weaknesses of education service delivery, particularly at the school level. Improving the Education Monitoring and Information System (EMIS) and strengthening the education system's capacity, at each level, to effectively monitor service delivery and make evidence-based, data-driven decisions can lead to more efficient use of available resources.[142] A well-functioning, transparent, and integrated data collection system is a precondition to improving the education sector's governance and performance. While EMIS modernization can be a long-term endeavor, short-term priorities can include making financial and non-financial information about the functioning of the education system more widely available to enhance transparency and accountability. The World Bank is supporting the MOE in increasing capacity to analyze education service delivery and promote more evidence-based policies and reforms, through the Support to Education and Skills Development in Iraq (SESDI) technical assistance program (see box 3).

BOX 3

SUPPORT TO EDUCATION AND SKILLS DEVELOPMENT IN IRAQ

The World Bank is helping strengthen the Government of Iraq's capacity to provide quality education services for improved Human Capital development through the Support to Education and Skills Development in Iraq (SESDI) technical assistance program.

The education sector in Iraq is facing a multitude of challenges across key dimensions (equity, quality, access, input, and capacity). The lack of diagnostics, strategies, and proven pilots prevents the GOI from undertaking evidence-based and more efficient planning within many competing demands and budget constraints to improve education service delivery. The program aims to strengthen capacity for the delivery of quality education services through three pillars: (i) improved education sector inputs and diagnostics; (ii) strengthened education strategies and policies; and (iii) higher education sector pilots to promote labor-market relevant skills development.

The activities under the technical assistance program-finance knowledge exchange, capacity building, analytical work, and small pilots – filling important capacity and knowledge gaps to re-align the education system to focus on improved Human Capital development – and include: (1) Service Delivery Indicators (SDI) survey, (2) Mobile Data Collection (MDC) platform, (3) school construction policy, (4) teacher allocation policy, (5) this public expenditure review, (6) National Education Strategy, and (7) a higher education sector skills pilot.

140. For example, Ninevah and Kirkuk have, on average, twice as many students per teacher as Diyala. Moreover, severe shortages of teachers are observed in the camps for internally displaced persons (IDPs).

141. Ranging from zero to 260 days of training per teacher per year (Ministry of Education, 2018).

142. The MOE is currently developing a new EMIS with support from UNESCO/UNICEF and additional assistance from the World Bank, specifically on capacity building and mobile data collection.

Public financial management (PFM) and budget execution in education

Iraq's PFM challenges have been extensively documented over the years.[143] The budget process is hampered by the fragile nature of Iraq's national politics, with no budget being approved for two fiscal years (2014 and 2020) in the last decade. The public budget is composed of two parts: the recurrent budget and the investment budget. The Ministry of Finance (MOF) is responsible for treasury functions and for preparing the recurrent budget, while the Ministry of Planning (MOP) prepares the National Development Plan and the investment budget.[144] The process of recurrent budget preparation is headed by the MOF's Budget Department, which consolidates negotiated budget requests from line ministries (including the MOE and MOHESR) and from the governorates. On the side of investment budget, the MOP Sectoral Planning Directorate discusses and agrees on new investment projects in the education sector with the MOE and MOHESR, while the Public Investment Directorate consolidates all agreed sectoral projects into the annual investment budget. In addition to the main sectoral ministries, investment budget expenditure in the education sector is also financed by the governorates, the Council of Ministers, and other entities (such as the Reconstruction Fund for Areas Affected by Terrorist Operations, REFAATO).

The investment budget in the education sector is substantially under-executed every year. Since 2015, the MOE's execution rate of the education sector investment budget has never reached 40 percent, while the MOHESR's education sector budget execution exceeded 40 percent only once (in 2016).[145] On the other hand, the recurrent budget in education is typically executed at rates well above 80 percent (Figure 99). The employee compensation part of the recurrent budget, in particular, is typically executed at a rate above 97 percent for the MOE and governorate DOEs, and between 85 and 90 percent for the MOHESR.

The reasons for low execution rates of the investment budget are numerous and not limited to the education sector. These include: bottlenecks in public procurement; fragmented and shifting responsibilities among public sector entities and levels of government; lack of adequate capacity to implement capital investment projects; and well-documented issues with corruption.[146] The 2017 PEFA assessment highlighted a "broad consensus" among stakeholders that authorities at all levels of government in Iraq "continue to struggle to spend their procurement budgets" due to factors ranging from lack of clarity regarding the various procurement methods, to weaknesses in procurement monitoring and inadequate training availability for procurement professionals. Issues with corruption and transparency further "exacerbate these challenges". Moreover, the rushed decentralization process in education placed a greater burden of sector financing and ensuring service delivery on the governorate authorities than many were equipped to receive. Administrative capacity within the governorate DOEs is being developed, but, in the meantime, the planning and execution of the pre-university education investment budget is split between the MOE and the governorates' general administration departments.

Corruption continues to negatively affect Iraq's public service delivery across many sectors, including education. According to the Institute for Administration and Civil Society Studies, 47 percent of respondents

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143. See, for example:

- U.S. Government Accountability Office, "Iraq Reconstruction: Better Data Needed to Assess Iraq's Budget Execution," Report No. GAO-08-153 (January 15, 2008). https://www.gao.gov/products/GAO-08-153

- Robert P. Jr. Beschel and Mark Ahern, *Public Financial Management Reform in the Middle East and North Africa : An Overview of Regional Experience. World Bank Studies* (Washington, DC: World Bank, 2012). https://openknowledge.worldbank.org/handle/10986/9368

- World Bank Group, "Republic of Iraq Public Expenditure Review: Toward More Efficient Spending for Better Service Delivery" (Washington, DC.: World Bank Group, 2014). https://openknowledge.worldbank.org/handle/10986/19281

- World Bank, "Decentralization and Subnational Service Delivery in Iraq: Status and Way Forward" (2016). https://openknowledge.worldbank.org/handle/10986/24757

- PEFA Secretariat, "Iraq Public Expenditure and Financial Accountability (PEFA) Performance Assessment Report, 2016 Framework" (October 2017). https://www.pefa.org/node/466.

- World Bank, "Iraq Economic Monitor, Spring 2020: Navigating the Perfect Storm (Redux)" (2020). https://openknowledge.worldbank.org/handle/10986/33676

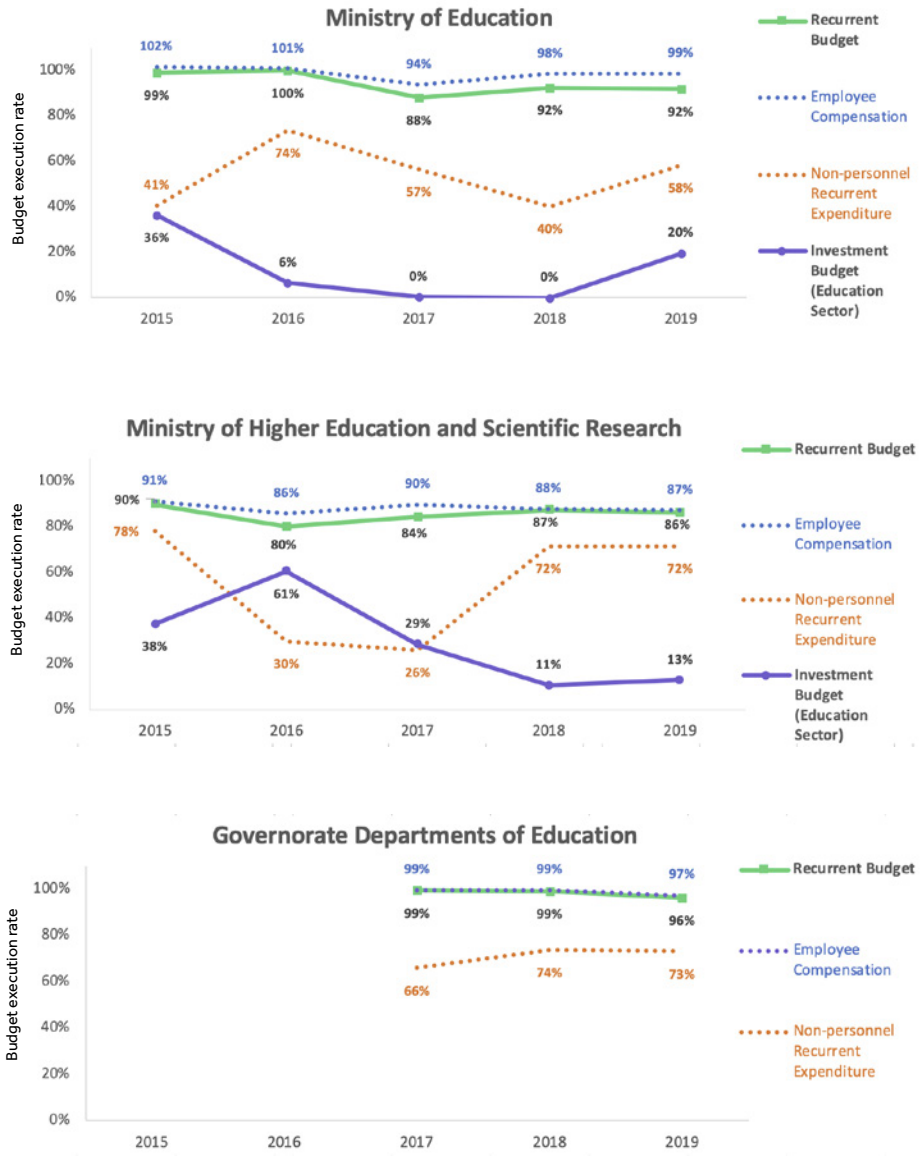
144. PEFA Secretariat, "Iraq Public Expenditure and Financial Accountability (PEFA) Performance Assessment Report, 2016 Framework" (October 2017). https://www.pefa.org/node/466.

145. Non-education sector investment by MOE and MOHESR is excluded from this analysis. Approved/revised budget figures for other entities incurring investment budget expenditure in education were not available at the time of analysis.

146. PEFA Secretariat, "Iraq Public Expenditure and Financial Accountability (PEFA) Performance Assessment Report, 2016 Framework" (October 2017). https://www.pefa.org/node/466.

in Iraq mentioned corruption as their main concern in 2019, ahead of unemployment (32 percent) and security (21 percent).[147] Public sector institutions "plagued by nepotism, politically motivated appointments, and payroll corruption in the form of 'ghost employees', hampering efficiency and credibility," according to a recent World Bank Fiduciary Risk Assessment.[148] "Cronyism and a culture of patronage incentivizes corrupt behavior in development projects. For instance, the costs of development projects are often grossly exaggerated so elites and their cronies could profit from them and, sometimes, they were not even carried out," according to the same assessment. In education, this means that the already low levels of public investment allocations to the sector may not be used effectively to address the education system's glaring infrastructure shortages.

Figure 99. **Education sector budget execution by entity and expenditure type, 2015-2019**



SOURCE / World Bank calculations based on budget and expenditure data provided by Iraq's MOF.

NOTES / Investment budgets for MOE and MOHESR exclude non-education sector expenditure. At governorate level, education investment budgets are typically implemented by governorate general administration departments, not by Directorates of Education.

147. As referenced in: World Bank, "Iraq Fiduciary Risk Assessment" (Washington, D.C.: World Bank, 2020).

148. Ibid.

Addressing institutional and PFM challenges in education

Several measures can strengthen the current institutional and PFM arrangements to ensure that budget allocations lead to improved education sector results. These include, among others:

a) Clarifying the roles and responsibilities among different ministries and levels of government charged with financing education in Iraq. The partial decentralization process has created fragmentation among the main sectoral ministries, other central government entities (such as the Council of Ministers), and governorate authorities. While the security situation in conflict-affected areas has necessitated a delay in transferring the responsibility for financing recurrent education expenses in 4 governorates, the education investment budget continues to be severely fragmented among many entities at both central and governorate levels. Consolidating responsibility for education-sector capital-investment planning and execution, within either the MOE or governorate administrations—while ensuring adequate authority and implementation capacity—is an important next step for streamlining the financing of education.

b) Building the capacity of education authorities at all levels to implement the various sector policies in a coherent manner will be crucial for improving sector efficiency. The forthcoming school infrastructure and teacher allocation policies, for example, will require clear strategic leadership from the central government level, as well as capable implementation at the governorate level. At the moment, school construction projects remain a critical bottleneck that results in consistent under-execution of education investment budgets. A special committee was established by the Council of Ministers to aid in the implementation of large-scale education construction programs, bypassing the MOE. With the recent devolution of authority to the governorate level, general administration departments in the governorates have taken on a greater role for financing education investment projects. The capacity needs as well as the strategic alignment between central ministries and governorate administrations will need to be addressed to ensure a more efficient use of scarce public resources.

c) Advancing the overall PFM reform agenda in Iraq will also benefit the education sector. The many long-running challenges and false starts of Iraq's PFM reform continue to hamper effective service delivery in education. The reform agenda covering the entirety of Iraq's public sector requires addressing the ongoing challenges in public procurement, budget credibility and reliability, external audit, transparency, and budget monitoring and reporting, among other areas. The education sector is particularly vulnerable to the threats of corruption and leakage that prevent the allocated budget resources from reaching the geographic areas and populations most in need—particularly in the sphere of capital investment.[149]

3.6 Conclusion and Policy Recommendations

The analyses conducted for this PER suggest that urgent policy action is needed to improve the adequacy, equity, efficiency, and institutional arrangements in Iraq's education sector. Among the chapter's main findings are the following:

a) Iraq spends a lower share of its public budget on education than comparator countries—less than 10 percent compared to a MENA average of 14 percent. This share has been declining in recent years, from 13.6 percent in 2016 to 9.7 percent in 2019. Personnel costs account for a relatively high share of public education spending (93 percent) while capital investment is severely underfunded at a time when existing infrastructure shortages continue to inhibit education service delivery in many parts of Iraq. Only 1 percent of Iraq's investment budget is currently allocated to the education sector.

b) Access to pre-primary and secondary education is far from universal. Although enrollment in primary education in Iraq is relatively equitable—with 92 percent of children attending school—large inequities exist in access to pre-primary education, which is attended by only 11 percent of 5-year-old children. In secondary education,

149. A thorough analysis of potential "leakages" in the education sector that prevent allocated resources from reaching the frontline service providers (i.e., schools) can be conducted using a Public Expenditure Tracking Survey (PETS) or a sufficiently detailed BOOST government expenditure database.

attendance rates of 58 and 33 percent in lower and upper secondary education, respectively, continue to hamper broad-based development of human capital.

c) Allocations of public funding across levels of education can be improved by reducing the gap in spending per student between higher and pre-university education from the current ratio of 4:1. The allocation between expenditure categories can be rebalanced by increasing the share of non-personnel spending in the education budget, currently less than 7 percent.

a) Public financing management (PFM) bottlenecks and partial decentralization hamper effective education budget planning and implementation. The especially low rates of investment budget execution severely affect the performance of the education system along with the rest of the public sector.

Based on this diagnostic, the PER proposes education reform actions across four pillars:

a) Ensuring adequacy of public spending in education by: (i) prioritizing investments in education in the medium term among the many competing priorities for scarce budget resources during the COVID-19 recovery phase; (ii) expanding the share of non-salary expenditure in the education budget, particularly in the form of capital investment in education; and (iii) targeting additional public resources to areas and groups of greatest need.

b) Enhancing equity of public spending in education by: (i) expanding access to pre-primary and secondary education, especially among children from lower income households and in rural areas; (ii) increasing education budget resources available to governorates with high poverty, low enrollment, and low public education spending, such as Maysan, Al-Muthanna, and Salah Al-Deen; and (iii) ensuring that inability to pay out of pocket for education-related costs does not prevent children from low-income households from enrolling and progressing through the education system.

c) Improving efficiency of public spending in education by: (i) increasing public spending per student in pre-university education relative to higher education in the medium term, while seeking internal efficiency savings in the short term; (ii) better measurement of education performance and efficiency across governorates; and (iii) improving efficiency in budget execution and resource utilization to achieve education results, which requires building capacity within the various spending units (especially at the governorate level).

d) Addressing institutional and PFM challenges in education by: (i) clarifying the roles and responsibilities among public sector entities and levels of government charged with financing education in Iraq; (ii) assessing the needs of the MOE and governorate directorates of education and building their capacity to implement various sector policies in a coherent manner, particularly in the area of capital investment; and (iii) advancing the overall PFM reform agenda in Iraq, which will also benefit the education sector.

While not all reform actions are equally important and feasible in the short term, decisions on their prioritization and sequencing require broad-based dialogue within Iraqi society. Table 12 below presents one possible sequencing/prioritization framework that, if implemented, can lead to more effective, efficient, and equitable provision of education in Iraq in the medium term.

Table 12. **Possible Sequencing and Prioritization of Reform Actions in Education**

Note: Highest priority reform actions are highlighted in bold.

Reform Pillars and Objectives	Short-Term (1 year) and Medium-term Actions (2 years)	Long-Term Actions (3-5 years)
Adequacy of education spending **Objective:** Increase the share of education in government budget through enhancing investment and non-salary spending	• **Short- to medium-term:** Set a medium-term target for increasing the share of education sector spending in total budget expenditure to be included in the National Plan and Education Strategy **Baseline:** 9.7 percent (2019) **Indicative target:** 12 percent (2022) **Indicative target:** 14 percent (2025) • **Short-term (1 year):** Set a medium-term target for increasing the share of non-salary spending in total education sector government expenditure **Baseline:** 7 percent (2019) **Indicative target:** 8.5 percent (2022) **Indicative target:** 12 percent (2025) • **Medium-term (2 years):** Commit to prioritizing investments in education as part of the COVID-19 recovery phase by adopting an investment program to address the impact of COVID-19 on education	• Prioritize investments in education, by gradually increasing its share of total budget expenditure to reach the target • Expand the share of non-salary spending in total education sector government expenditure (recurrent and investment budgets) to reach the target, in particular by expanding capital investment to close the existing infrastructure gap and finance improvements in the learning environment
Equity of education spending **Objective:** Improve education outcomes of children from less well-off households and areas	• **Short-term (1 year):** Set medium-term targets for increasing enrollment and completion rates in pre-primary and secondary education Targets TBD, for example: Lower secondary completion rate Baselines (2018): 46.4% (total); 46.2%, 46.6% (male, female); 23.1%, 35.5%, 41.1%, 56.7%, 72.7% (wealth quintiles: poorest to richest) **Indicative target (2022):** On average 2pp increase to baseline, with at least 3pp increase in two poorest quintiles **Indicative target (2025):** On average 4pp increase to baseline, with at least 5pp increase in two poorest quintiles • **Medium-term (2 years):** Analyze and report public spending per student by level of education • **Medium-term (2 years):** Commit to targeting additional public resources to areas and groups with greatest need by adopting new school infrastructure and teacher allocation policies that improve equity between regions and schools	• Gradually increase the amount of public funding per student in pre-university education available to governorates with high poverty and low enrollment rates
Efficiency of education spending **Objective:** Enhance value-for-money in education by increasing sector performance within the available resource constraints	• **Short-term (1 year):** Set a medium-term target for reducing the ratio between public spending per student in higher education and pre-university education **Baseline:** 3.6 to 1 (2017) **Indicative target:** 3.0 to 1 (2022) **Indicative target:** 2.5 to 1 (2025) • **Short-term (1 year):** Set a medium-term target for budget execution rates in non-salary parts of the education budget **Non-personnel recurrent expenditure** **Baseline:** 66 percent (2019) **Indicative target:** 80 percent (2022) **Indicative target:** 90 percent (2025) **Investment budget expenditure** **Baseline:** 17 percent (2019) **Indicative target:** 50 percent (2022) **Indicative target:** 90 percent (2025) • **Short-term (1 year):** Set a medium-term target for reducing the ratio between public spending per student in higher education and pre-university education	• Reallocate public spending across levels of education, increasing spending per student in pre-university education relative to higher education to reach the target (e.g., by diversifying sources of funding to universities to make them less reliant on the government budget) • Increase budget execution rates in non-salary parts of the education budget to achieve the target, with particular focus on strengthening the capacities of the MOE and governorate directorates of education to more effectively implement the investment budget • Participate in at least one international system of student learning assessment (e.g., PISA, TIMSS, PIRLS) by 2025 and use the results to inform decisions around education resource allocations

	Baseline: 3.6 to 1 (2017) **Indicative target:** 3.0 to 1 (2022) **Indicative target:** 2.5 to 1 (2025) • **Short-term (1 year):** Set a medium-term target for budget execution rates in non-salary parts of the education budget **Non-personnel recurrent expenditure** **Baseline:** 66 percent (2019) **Indicative target:** 80 percent (2022) **Indicative target:** 90 percent (2025) **Investment budget expenditure** **Baseline:** 17 percent (2019) **Indicative target:** 50 percent (2022) **Indicative target:** 90 percent (2025) • **Short-term (1 year):** Develop a framework for systematic assessment of student learning to better measure education quality and efficiency and collect initial data to inform development of the framework in line with international good practices (such as EGRA or SDI) **Baseline:** No assessment framework in place (2020) **Indicative target:** Assessment data collected using Service Delivery Indicators (SDI) methodology and results disseminated (2022) • **Medium-term (2 years):** Adopt new school infrastructure and teacher allocation policies to bring greater transparency, equity, and efficiency to resource allocation **School Infrastructure Policy** **Baseline:** No policy in place (2020) **Indicative target:** Policy implemented in 6 governorates (2022) **Indicative target:** Policy implemented in all governorates (2025) **Teacher Allocation Policy** **Baseline:** No policy in place (2020) **Indicative target:** Policy implemented in 6 governorates (2022) **Indicative target:** Policy implemented in all governorates (2025)	
Institutional and PFM challenges in education **Objective:** Improve the effectiveness of education sector management through streamlined institutional arrangements more conducive to achieving results	• **Medium-term (2 years):** Clarify the roles and responsibilities among public sector entities and levels of government charged with financing education in Iraq • **Medium-term (2 years):** Assess the capacity-building needs of the MOE and governorate directorates of education to implement education sector policies • **Medium-term (2 years):** Develop a plan for establishing an Open Data Portal for the education sector to increase transparency and accountability around the use of financial and non-financial resources and support evidence-based decision making	• Strengthen the capacities of the MOE and governorate directorates of education, with a particular focus on enabling more effective implementation of the investment budget (e.g., project selection and evaluation) • Launch an Open Data Portal for the education sector containing data on spending per student at each level of education and education outcomes at the governorate, district, and school level, along with other relevant information • Advance the overall PFM reform agenda in Iraq, which will also benefit the education sector (e.g., moving towards performance budgeting, clarifying intergovernmental fiscal relations, etc.)

Chapter 4:
Pensions and Social Insurance Chapter

Introduction

The contributory system in Iraq faces substantial challenges related to sustainability, coverage, and inequities, further exacerbating vulnerabilities in the country. While spending on pensions is high, the current pensions system covers only around 38 percent of the total labor force, most of which is in the public sector.[149] On the other hand, the private sector scheme has a limited number of contributors (less than 4 percent of total private sector employees).[150] In addition, the current system causes inequities, particularly between private and public sector employees (the latter being covered by a more generous scheme) as well as perverse incentives, for instance for people to retire early. Combined, these factors compromise the sustainability of the pension system in the country.

This chapter presents an overview of the challenges and opportunities that Iraqi policymakers should consider when discussing a strategy for old-age income support and pension system reform. The chapter presents only very preliminary analysis and projections, given the fact that neither assumptions nor data have yet been discussed in depth with counterparts, and that some relevant figures have not been provided as of yet. However, based on international experiences, previous analysis of the pension system in Iraq, and some of the most recent data and information about the developments of the current system, the chapter could still offer useful preliminary guidance for policymakers dealing with the topic.

The chapter is divided into three sections. The first section describes the institutional and legislative context of pensions in Iraq. The second section includes pension system analysis based on financial, social, and economic objectives. It also includes preliminary projections under four different scenarios: (i) baseline (based on the 2014 law, without including the recent November 2019 amendments); (ii) the 2014 law with the recent amendments (current situation); (iii) draft law 2017; and (iv) reform package of various measures. The third section provides policy recommendations for strengthening the country's pension system.

4.1 Institutional and Legislative Context of Pensions in Iraq

The Iraqi pension system pre-April 2003 was composed of two separate funds[151]: the so-called State Pension System (SPS), which covers civil servants, the military and security forces, and employees in state-owned enterprises (SOEs); and the Social Security System (SSS), which covers workers in the private sector. The SPS managed different schemes, each associated with different occupational groups (e.g., employees in the central administration and teachers). Both the SPS and the SSS were contributory, earnings-related, PAYG, and defined-benefit schemes.[152] After the cease of major military operations in Iraq, the Coalition Provisional Authority replaced regular pensions with emergency "flat" payments that captured, at the time, an estimated 3.5 percent of GDP. At the same time, the SSS reserves (19 billion IQD – less than half a percentage point of GDP) were frozen in Al Rafidain Bank (the Central Bank). Since then, emergency payments have been supported by the state budget.

With this arrangement in place, the Iraqi pension system accumulated an implicit pension debt incompatible with a sustainable path. The first part of this debt was produced by the pensions that needed

149. A thorough analysis of potential "leakages" in the education sector that prevent allocated resources from reaching the frontline service providers (i.e., schools) can be conducted using a Public Expenditure Tracking Survey (PETS) or a sufficiently detailed BOOST government expenditure database.

150. World Bank, *Iraq: Systematic Country Diagnostic*, Report No. 112333 -IQ, (Washington, D.C.: World Bank Group, February 3, 2017).

151. World Bank, *Iraq: Systematic Country Diagnostic*, Report No. 112333 -IQ, (Washington, D.C.: World Bank Group, February 3, 2017).

152. Contributory means that participating employees in the pension scheme are required to support the scheme with contributions (often through payroll taxes). Earnings related means that pensions are based on the beneficiary's earnings. Pay-as-you go (PAYG), in its strictest sense, is a method of financing whereby current pensions are paid out of current revenues from contributions. When revenues are higher than expenditures, some reserves can be accumulated, hence PAYG can be fully or partially funded. Defined benefit (DB) means the pensions are calculated based on a prescribed formula that usually considers several factors, mainly length of employment and salary history.

to be paid to retirees, in form of the flat emergency payments. The second part was the result of the pension rights accrued to date by contributors who have not yet retired. A recommendation was therefore made for the Government of Iraq (GoI) to allow the new pension system to "start fresh "—to make the accumulated implicit debt of the system explicit and then identify appropriate financing mechanisms. However, the recommendation was not implemented by the GoI, and the new system did not receive all the due explicit debt.

A new pension law, Law 27/2006, was passed in January 2006 but not implemented, as it was widely deemed unsustainable and did not benefit from significant international experience. Subsequently, with the support of the World Bank, IMF and USAID, the amended the law in December 2007 to improve financial sustainability and alter the design of public sector pensions in line with good international practices. The Law as amended in December 2007 was subsequently referred to as the Unified Pension Law and called for the merger of the public and private pensions schemes. The National Board of Pensions (NBP) was therefore established under the Ministry of Finance (MOF) and absorbed the MOF's Pensions Directorate which used to administer the SPS. In fact, those who retired prior to January 17, 2006, which is the date of effectiveness of the law, were little affected by the reform, since their benefits were covered by the general budget, and administered by the NBP. However, a new State Pension Fund (SPF) was established as a separate administrative unit under the NBP, to provide pension benefits to public sector workers retiring on or after January 17, 2006.[153] On the other hand, and as provided by the Law, the SSS was to be transferred from the MOLSA to the NBP. However, this never happened for political economy reasons. The private sector scheme is until today, managed by the Ministry of Labor and Social Affairs' (MOLSA) Pension and Social Security Department (PSSD).

While the Unified Pensions law presented an opportunity for the improvement of the pension system in Iraq, the GoI faced substantial challenges related to its capacity to implement the law, on one hand, and to ensuring a comprehensive, affordable, equitable, and sustainable old-age income protection mechanism, on the other hand. In fact, the pension system, once implemented, was going to cover roughly one-fourth of the labor force, a portion that is low from a social protection perspective.[154] The GoI therefore requested Technical Assistance from the Bank to support the implementation of the new pension reforms. The Bank responded to this request with the Pension Reform Implementation Support Technical Assistance (PRISTA), a 7.8 million USD grant that was executed from February 2010 till October 2014.

The GoI faced a number of challenges in the implementation of the Unified Law, most of which related to the integration process. These challenges included lack of clear directives on the unification of the schemes and on the clarity of the role of each institution, as well as lack of communication with various stakeholders, such as MOLSA, unions, organizations of employers etc. Given these challenges, the GoI counterparts decided to work on a new law, which was then approved/passed by the Council of Representatives (CoR) in February 2014, as Law 9/2014. The Law 9/2014 governs the current pension system in Iraq. At the time, initial assessment of Law 9/2014 by the World Bank, identified substantial gaps and policy issues in said law, in addition to inconsistency with generally accepted principles for pension system design. Moreover, one of the main reservations the Bank had on such a law was that it only covered public sector employees.

On October 19, 2016, the Council of Ministers (CoM) issued Decree No. 285, establishing a high-level committee to draft a new, integrated social insurance law, covering both public and private sector employees. The committee was chaired by the legal department of the General Secretariat of the CoM (CoMSec) and included representation from the NBP, MOLSA, and the State Council. The committee, with the support of the Bank, worked on a new law. The aim of the this law was to have in place a more transparent financing mechanism for all social insurance programs, which would make the system more sustainable, improve equity, and reduce

153. With regards to those who retired after 2006, and whose contributions were, in part, made before 2006, it would have been fairer and more transparent to transfer their accrued rights (pre-2006) from the general budget to the SPF. However, in practice, this never happened, and the SPF ended up paying benefits to people retiring from the 2006 scheme, but whose pre-2006 contributions were not provided to the SPF, since it did not yet exist at the time. In other words, those retirees are taking out from the system disproportionately much more than what they have put in, which makes the system further unsustainable.

154. That was 10 percentage points below the already low average coverage rate in the Middle East and North Africa region.

adverse incentives on savings and labor markets. The draft law included modern parametric- and other pension reforms. When enacted, the draft law would also address fiscal drains on the treasury caused by multiple pension rights provided by other laws, which would allow individuals to have more than one pension salary. On the other hand, the draft law also introduced mechanisms for voluntary pensions, which, along with other measures, are designed to increase pension coverage in the long-term. However, the draft law was not yet a good pensions law, particularly with the amendments subsequently introduced by stakeholders.

The new draft law, also referred to as "Draft Social Insurance Law of 2017", was approved by the CoM on November 29, 2016. However, the complex political economy for such reform hindered its passage; the law is still pending approval of the CoR. Instead, the GoI introduced, in November 2019, amendments to Law 9/14 that would further compromise the financial sustainability and fairness of the pension system, as the law entails generous increases of some benefits without addressing some of the key design challenges of the pensions system. The amendments to law 9/14 were put into effect as of January 1, 2020 (see next sections for details).

4.2 Assessment of the pension system's performance under different scenarios

The contributory pension system in Iraq comprises two schemes covering public and private sector employees, both designed as earnings-related, pay-as-you-go, defined-benefit schemes.[155] The public scheme, managed by the SPF under the NBP, includes civil servants and security forces. Benefits are paid for old-age, disability, and survivorship (widows, orphans, and others). Benefits for survivors of martyrs are also paid by the public scheme. The private scheme, managed by the MOLSA PSSD, covers a small proportion of private sector employees. In addition to the two schemes, there are currently 1.5 million people who are still receiving pension benefits from the general budget—mostly those who retired before January 2006 (when the current public pension scheme was created). However, these are not the only beneficiaries paid by the general budget. Theoretically, these payments were supposed to be phasing out, but, in practice, the total number of beneficiaries has been increasing since 2018. The total number of beneficiaries in 2017 was 2.2 million, and this number actually decreased to 1.4 in 2018. However, the same number slightly increased again in 2019, and even further in 2020 (1.50 and 1.53, respectively). [156]

While total spending on pensions is high (approximately 4.3 percent of GDP in 2019), the current scheme covers around 38 percent of the total labor force, most of whom are in the public sector (around 3 million contributors). The private sector scheme has a limited number of contributors (only 4 percent of private sectors employees, or around 200,000 people out of the 5 million working in the private sector), and there are not yet any social insurance schemes for self-employed, part time, or flexible workers.

This section seeks to assess the performance of the pension and social insurance system in Iraq under four different scenarios using relevant benchmarks, and focusing on the fiscal, economic, and social dimensions. The assessment covers the following four scenarios: (i) the system governed by Law 9/2014 that was enacted from January 1, 2014 till December 31, 2019; (ii) the current system governed by the amended Law 9/2014 that went into effect on January 1, 2020; (iii) the scheme provisioned under the Draft Social Insurance Law of 2017; and (iv) a reform package option, presented based on international best practices. The four scenarios are described in Table 11. The detailed assumptions for these scenarios are enclosed as Annex I. The following sections present preliminary assessment and analysis of the pension system in Iraq based on the financial, economic, and social objectives.

155. See footnote 4 for definitions.

156. There are several types of pension benefits paid by the general budget, in addition to the old pensions. For instance, the number of beneficiaries categorized as "victims of terrorism" increased from 120,944 in 2017 to an estimated 308,292 in 2020, and the number of beneficiaries categorized as "martyrs' establishment" increased from 729,766 in 2017 to an estimated 170,687 in 2020.

Table 11. **Description of the four scenarios**

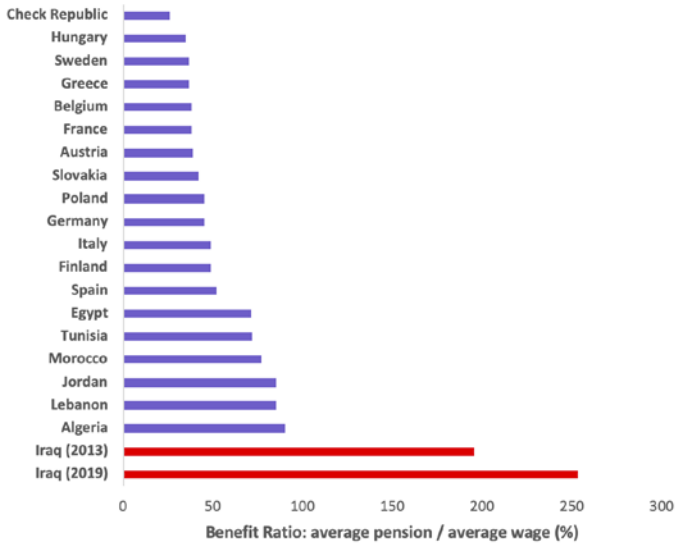
Scenario 1 Baseline (Law 9 of 2014)	No reform (January 2020 amendments are not included)	
Scenario 2 (amendments to Law 9/2014), in force since Jan. 1, 2020	Baseline, plus: - Increase minimum pension from ID 400,000 to 500,000.	- Decrease retirement age from 63 to 60
Scenario 3 (Draft Law of 2017)	- Reduce contribution rates from 25% to 20% - Increase mandatory age to 65 - Increase early retirement from age 45 to 50 - Increase other qualifying conditions for early retirement (increase number of years of service) - Pension indexation to 100% inflation	- Increase the base wage for pension calculations (from the last 3 years to 7, and gradually increasing over the entire career) - Decrease the generous pensions for survivors (decrease replacement rate from 100% to 85%)
Scenario 4 (reform package option)	Baseline, plus: - Increase retirement age to 65 - Apply actuarially fair factors for pension reductions for early retirement - Gradually reduce accrual rate from 2.5% to 1.5%	- Gradually increase base wage for pension calculation to include the entire career - Index pensions in payment annually to 100% inflation - Set minimum pension as 50% of minimum insured wage

A. Fiscal and financial sustainability of the system

A social insurance system should be sustainable, and this only happens when the system has the capacity to pay current and future benefits in the long run and under reasonable assumptions, without shifting substantial burdens to future generations and without having to cut benefits, increase contributions, or change qualifying conditions.

To understand how the future trends will govern the State Pension Fund (SPF) financial balance, it is essential to identify and understand the major elements that are driving expenditures and revenues. Expenditures of the pension system are generally driven by three major factors: (i) the scale of retirement-income promises; (ii) the maturity of pension schemes; and (iii) demographics. In the case of the first factor, old-age retirement income is very high, with an estimated replacement rate or benefit ratio (defined here as average pension divided by average wage) reaching 253% in 2019. The average pensionable wage in Iraq is around ID 360,000, while the average retirement income is more than ID 900,000[157]. The benefit ratio was significantly lower in 2013 at around 195.5%—still considerably high, however. As illustrated in Figure 100, Iraq's benefit ratio is even higher than any country in the MENA region.

Figure 100. **Benefit ratios: average pension as percentage of average wage (cross-country comparisons)**



SOURCE / Economic and budgetary projections for the EU27 Member States (2010-2060), author's calculations for non-European countries.

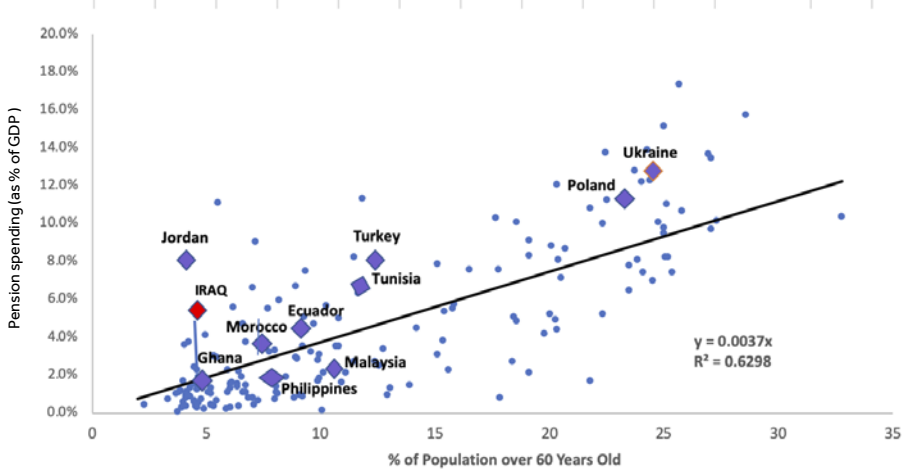
157. Based on the latest data provided by the SPF during 2020.

In terms of system maturity, the SPF is a relatively new system that, when created, was freed of the substantial burden posed by retirees whose entitlements were transferred to the treasury. Only newly retired employees (those who retired after 2006) were moved into the SPF. Only the new contributors in 2006 will be contributing their entire career in the new system. Many have already been retiring since 2006 (because of their age) without having contributed much to the system. Basically, the 2006 system was not completely new since it included considerable accrued rights for those who had already worked before 2006.

The third factor affecting pension expenditure is related to demographics (both population and system demographics). When looking at the latest system demographics (number of beneficiaries versus number of contributors), it is clear that there are gradually less contributors for more beneficiaries (because of both age structure and increase of life expectancy). Looking at the population demographics, it becomes apparent that while Iraq is still a demographically young country it is also ageing.

Iraq is also currently spending on pensions above what it would be expected based on international comparisons. Figure 101 presents the relationship between demographics and pension spending. On the horizontal axis, the dependency ratio is defined as the percentage of the population over the age of 64 as percentage of total population. It ranges from less than 5.0 percent in demographically young countries like Ghana to nearly 23.0 percent in Japan (the country with the oldest population). Countries with similar demographics to that of Iraq, such as the Philippines and Malaysia, spend much less on pensions. Iraq's dependency ratio of 5 percent is relatively moderate relative to the region though higher than several countries in MENA. The vertical axis shows public pension expenditures as a percentage of GDP. Countries close to the regression line spend what is normal (according to international experience) given their demographics. Iraq is significantly above the line, which means that its pension spending is associated with a dependency ratio that is more than double its current ratio. Thus, countries with this level of pension expenditures usually have a significantly larger elderly population to cover.

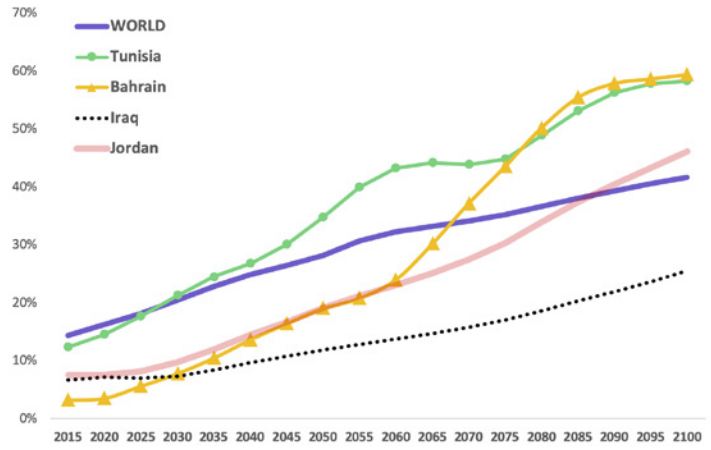
Figure 101. **Pension spending and demographics**



SOURCE / WB pensions database

The process of ageing in Iraq is much slower than the world's average and many other countries in the region (Figure 102). Favorable demographics in Iraq, such as the number of young people largely exceeding the number of old people, allow the potential to increase the number of contributors. However, careful consideration should be given to this potential advantage. If there are parametric inconsistencies, as in the case of Iraq, the demographics will only be hiding the real challenge of unsustainability. As in most PAY-as-You-GO (PAYG) schemes worldwide, when the benefit promises are not in line with contribution rates and retirement ages, such inconsistency is bridged by the favorable demographics and the surplus of schemes resulting from a much higher number of contributors than pensioners. However, as the schemes mature, and as the number of pensioners exceeds the number of contributors, the schemes will, eventually, have to rely on different sources of funding, such as the general budget.

Figure 102. **Projected dependency ratio in Iraq and selected comparators**



SOURCE / UN population projections

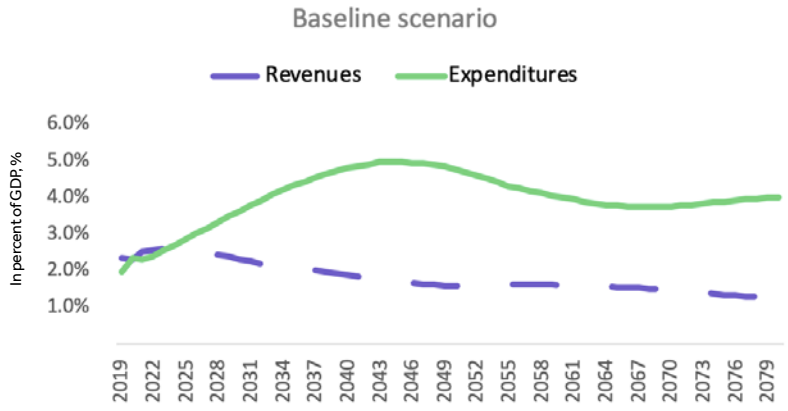
In summary, there are several factors that make pension spending considerably increase: high retirement replacement rates, system demographics (more people will be retiring), and increase of life expectancy.

Scenario 1, Law 9/2014 (baseline, before implementing the amendments of 2019)[158]

Financial projections using the system parameters based on Law 9/2014, prior to implementing the amendments of 2019, indicate that the system will run into deficit starting 2024 (Figure 103). The expected deficit is driven by simultaneous increase in expenditures and decline in revenues. Revenues will slow down as percentage of GDP, given that the system is still a close scheme that only covers public sector employees.

Under this scenario, pension expenditures will be increasing at a faster pace than revenues, given the system parameters under the said legal framework. This is driven by various factors, mostly parameters that are not well aligned: the relatively low retirement age of 63 that translates into a short contribution period, and the long retirement period during which pension salary is paid to plan members.[159] Also, contribution rates are not enough to cover the generous benefits, which include high accrual rates (2.5 percent), and the fact that pensions are calculated based only on the last three years (3), and not the entire contributory career.

Figure 103. **Estimated pensions revenues and expenditures under Scenario 1 (Law 9/2014)**



SOURCE / PROST output based on NBP / MoF data and assumptions

158. The data and assumptions for the preliminary projections, presented here, have not yet been discussed with the Iraqi counterparts, hence they have to be taken with caution. Also, the preliminary projections should not be quoted in absolute terms without proper reference to the underlying assumptions. The purpose of the sustainability benchmarks, presented here, is to provide a comparison between the relative magnitudes of the effects of different pension policy measures under various scenarios.

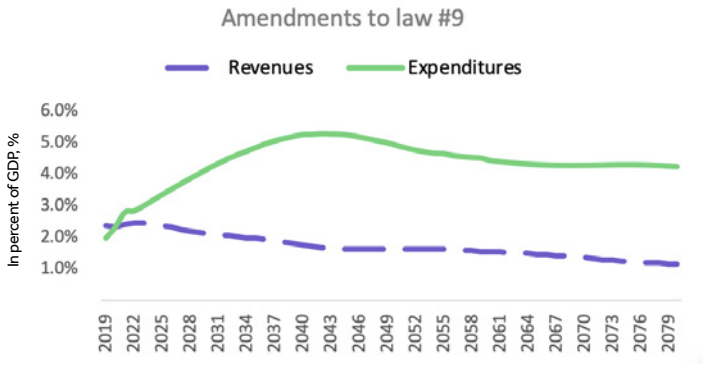
159. See section on conclusions and policy recommendations for the alignment of parameters.

Scenario 2, Amended Law 9/2014

The CoR enacted amendments to Law 9/14 in November 2019 that further compromised the financial sustainability and fairness of the pension system. The amendments entail generous increases of some benefits and does not address some of the key design challenges of the pensions system. The amendments to Law 9/14 were put into effect as of January 1, 2020.

The changes introduced by the amendments of 2019 are: lower retirement age of 60 (instead of 63); provision for an early retirement at the age of 45 (instead of 50); and an increase in the minimum pension to 500,000 IQD (instead of 400,000 IQD). These amendments contributed to an early deficit in the system, as well as system demographic challenges. Increased number of beneficiaries, coupled with decreased and/or stagnant number of contributors, translates into increased expenditures and decreased revenues, and is also leading to an overall SPF budget deficit. As a result, the financial simulations indicate that the deficit will occur in 2022 (instead of 2024, compared to the previous scenario) as a result of a surge in expenditure and decline in revenues (as percentage of GDP) (Figure 104).

Figure 104. **Estimated pensions revenues and expenditures under Scenario 2 (amended Law 9/2014)**



SOURCE / PROST projections

Scenario 3, Draft Law on Social Insurance (referred to as draft law of 2017)

A prudent approach to reforming the pension system in Iraq was introduced in 2016. A draft law on Social Insurance was approved by the CoM in November 2016 (referred to as draft law of 2017) and was transferred to the CoR for enactment. However, the political unrest and complex political economy hindered the enactment of said law. The draft law consists of a full integration between the public and private sector schemes, and introduce provisions for the unification of benefits and retirement conditions, which would have had drastic ramifications on the fiscal projections (Figure 105).

The draft law proposed important parametric changes, considered critical to ensure long-term sustainability of the pension system. These include:

a) Set the Statutory retirement age at 65 (instead of 63 in law 9/2014);

b) Gradually decrease the accrual rate from 2.5% to 2% for the pensioners according to the statutory age;

c) Reduce the number of early retirement cases by using a reduced accrual rate (i.e. 1.5% instead of 2.5%);

d) Change the average salary considered as a base for pension calculation to reflect the average nominal salaries during the last 7 years, rather than the last 3 years; the average salary is to be increased gradually every year;

e) Increase the minimum number of years of service from 15 to 20 years;

f) Reduce survivor accrual rates as follows: 65% instead of 80% in case of one survivor; 75% instead of 90% in case of two survivors; 85% instead of 100 in case of three survivors or more;

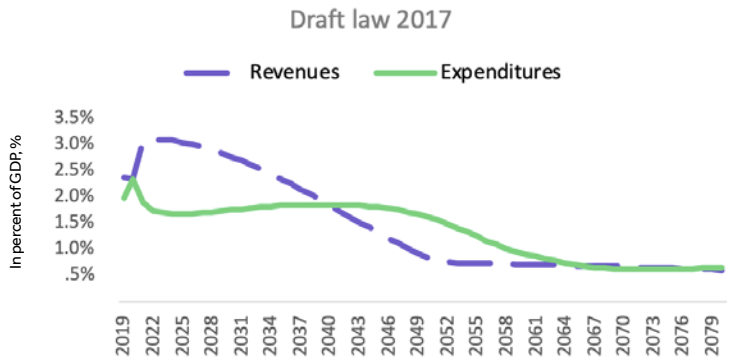
g) Reduce the minimum level of pension salary;

h) Reduce the maximum level of pension salary from 100% to 80%;

i) Have the state budget incur all pension salaries not under the provisions of this Law.

The financial simulations using the above parametric changes indicate an overall improvement in the system outcome. For instance, as a result of the integrated scheme and opening up the system to new entrants, the number of contributors is expected to increase under the Social Insurance system (assumption to be discussed—in this particular scenario, as well as in scenario 4, the number of contributors is assumed to increase from 3 million to 7 million by the end of the simulation period); meanwhile, under the previous scenarios, the number of contributors remains constant. Also, the number of pensioners is lower, compared to the previous scenarios, since people retire later under the Social Insurance Law. Revenues are expected to increase, particularly at the beginning of the simulation period when people are joining the scheme for the first time. However, more people contributing will also mean more people benefiting, hence, although expenditures are lower when comparing with the previous scenarios, because of the new rules (less generous, but also more equitable/fairer pensions), they also increase above revenues, when a higher number of people are benefitting. Since expansion of coverage is gradual but has also a limit, revenues from contributions and expenditures, eventually, become quite similar. Ultimately, the parameters in draft law 2017 are still misaligned (people will be contributing to the system less than what they will be taking out). Favorable demographics will only help for a few years.

Figure 105. **Estimated pensions revenues and expenditures under Scenario 3 (draft law 2017)**



SOURCE / PROST projections

Sustainability, Scenario 4, Proposed Reform Package

As highlighted above (Figure 105), in the absence of a prudent and comprehensive reform scenario, the system will run into deficit in a matter of 3 years. To avoid this catastrophic scenario, the system performance can be improved through key parametric changes that would turn the deficit into a long-term surplus. This scenario is but one potential reform option that could be considered, as there are infinite ways to combine measures and pace of reforms. The reform package includes the following key measures: (i) increase retirement age to 65; (ii) apply actuarially-fair factors for pension reductions for early retirement; (iii) gradually reduce accrual rate from 2.5% to 1.5%; (iv) gradually increase base wage for pension calculation to include the entire career; (v) introduce indexations of pension payments to 100% inflation; and (vi) set minimum pension at 50% of minimum insured wage. The proposed package of reform will introduce long equilibrium into the SPF, and the scheme would be in surplus during the entire simulation period, which would also allow for the accumulation of reserves (Figure 106).

That being said, there is a dire need to implement a pragmatic pension reform package to put the system back on a sustainable path. Most importantly, the amendments to Law 9/2014 contributed to speeding up the process of financial deterioration of the system, which calls for an immediate abolishment of these amendments or, alternatively, the adoption of a reform package that would ensure that the system is self-sustained and will exert fiscal pressure on the already-drained general budget. As indicated in Figure 107, estimated current balance under the scenario with new amendments is projected to be in deficit by the year 2022, while the year of deficit under the baseline scenario (where amendments are not yet included) is projected to be 2024. Only under the scenario with a proper reform package is the current balance in surplus during the entire projected

period (the only scenario where the scheme is sustainable).

Figure 106. **Estimated pensions revenues and expenditures under Scenario 4 (Reform package)**

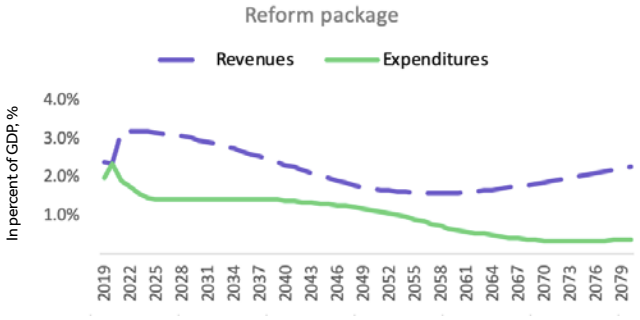
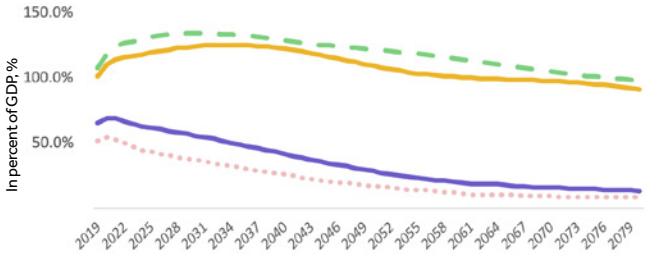


Figure 107. **Estimated current balance under different scenarios**



SOURCE / PROST projections

Relatedly, a relevant indicator that measures the sustainability of the contributory pension is the contribution rate required to keep the scheme in balance (to equalize revenues from contributions with pension expenditure). As indicated in Figure 108, the required contribution rate, under the scenario that includes the current amendments, would represent, by the end of the simulation period, more than 60 percent of the payroll (it would basically be unrealistic).

The implicit pension debt (IPD) is another important indicator to consider when assessing the fiscal sustainability of the pension system. The IPD is the present value of the pension system's promised commitments. It corresponds to the cost of estimating all the accrued pension obligations of the pay-as-you-go scheme to date, assuming they were paid out today. This includes the obligations to all employees already part of the system (basically, the system is already making promises to them as well). IPD under the scenario where the recent amendments are considered is the highest. On the other hand, if a proper reform package is considered, IPD is considerably reduced, as indicated in Figure 109.

Figure 108. **Estimated required contribution rate for equilibrium**

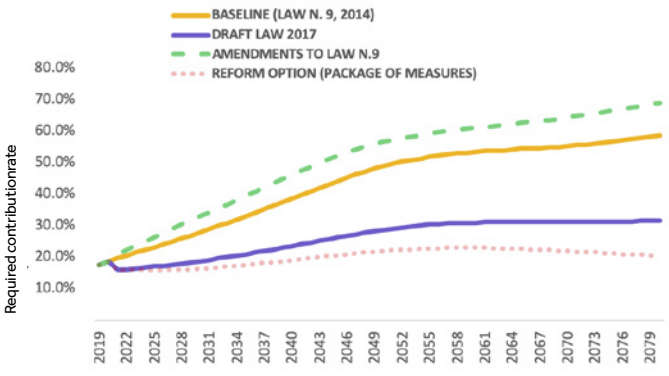
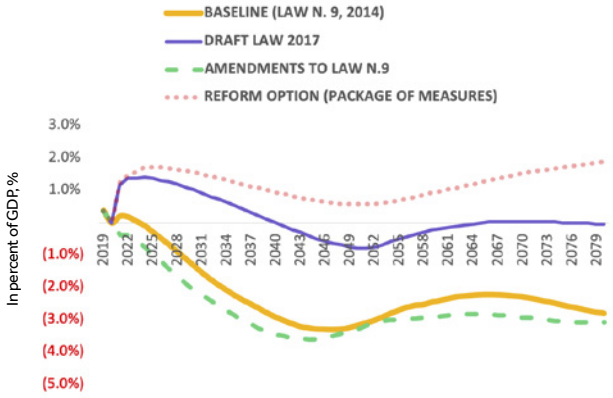


Figure 109. **Projected implicit pension debt**



SOURCE / PROST projections

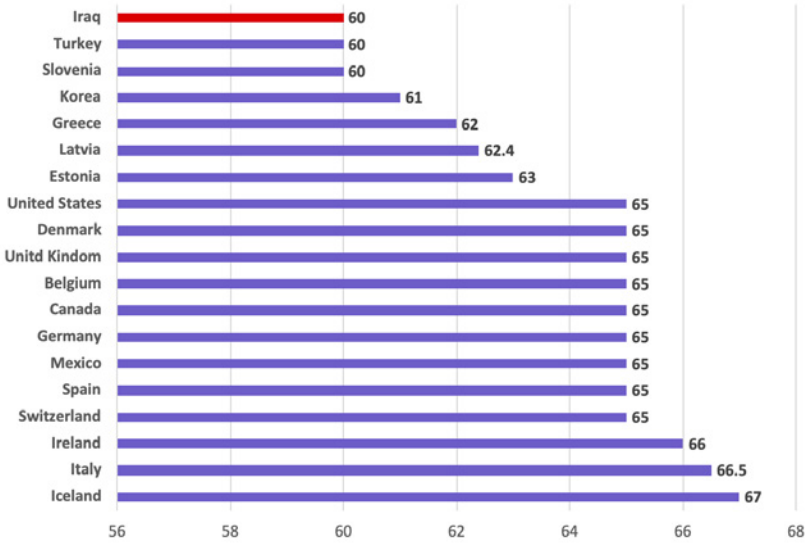
B. Economic issues: Equity and efficiency

The financial sustainability is an important aspect in the design of the pension system. However, the economic aspects of equity, efficiency, and good incentives, are as important and should be given great consideration while designing the pension system. There are several aspects of the current design of the Iraqi pension system that may be compromising equity and creating bad incentives.

Easy access to low retirement age is creating considerable inequities and bad incentives. In the current system, early retirement is not penalized. Moreover, with the recent amendments, the normal retirement age has been decreased from 63 to 60. Although the intention was to allow space for new younger public sector employees, this is creating further financial obligations for the pension system, as well as inequities between those retiring early and those retiring later (given the lack of appropriate linkages between contributions and benefits). As life expectancies are increasing, retirement ages should too.

While Iraq is reducing the retirement age, other countries are moving into the opposite direction by increasing this age's threshold. It is also important to distinguish between life expectancy at birth (relatively low in Iraq when comparing with other countries) and life expectancy at older ages (which are more similar to other countries). Despite the fact that Iraq has lower life expectancies than all OECD countries, the difference between its effective retirement age and its life expectancy at that age is higher than in most OECD countries that have mostly increased their retirement ages in line with their life expectancies. Currently, no OECD country has a retirement age below 65 (Figure 110). More than half of the OECD countries will require today's workers to continue working beyond the age of 65. In 14 OECD countries, the pension age is already 67, or, phased increases are already legislated or in full effect. Ireland and the United Kingdom are currently half-way through gradual increases to age 68. Only two countries have an automatic escalator for retirement age with changes in life expectancy. In Denmark and Italy, the pension age will be linked to life expectancy, starting at age 67. This pattern in OECD countries is a clear response to a strong aging-population trend. Longer lives mean lower benefits, unless people work longer to compensate.

Figure 110. **Statutory retirement age in Iraq and in selected countries**



SOURCE / OECD database

In addition to the relatively low statuary retirement age, the system implicitly encourages early retirement. The pension system in Iraq supports early retirement rather than working until the mandatory pension age. The latest amendments to Law 9/2014 reduced the minimum age for retirement from 50 years to 45 years. This, it is important to reiterate, needs to be reversed. The most common international practice is to rigidly restrict early retirement. Many OECD countries restrict entitlements to the normal pension age only. Some countries discourage early retirement by penalizing the retiree and significantly reducing the pension benefit. For example, Canada has a 7.2 percent deduction in pension benefits and Iceland has one of 7 percent per year. In Spain, the reduction factor varies with age and contribution history, ranging between 6 percent and 8 percent, and France's main complementary scheme cuts benefits for early retirees by between 4 and 7 percent. A number of other countries have strict contribution conditions for receiving unreduced early-retirement benefits: in Belgium, for example, early retirement requires 40 years of contributions before age 62 or 42 years of contributions before age 60. Early retirement can be an option; however, it should be restricted to some professions that have high life risks such as fire fighter, police, and other security personnel. Elimination of early retirement is a sensible

financial and economic policy. Allowing early retirement implies that the government is effectively subsidizing employees by paying them for a considerable amount of lifetime benefits.

Calculating the pensions based on the individual's last wages only creates considerable inequities favoring those who, by the end of their careers, have higher wages, versus those who have a flat-wage during the entire career. In essence, the linkages between contributions and benefits is higher for those with a flat-wage career (wage base for contribution is very similar to the wage base for pensions calculation), while, on the other hand, those with higher wages by the end of their career unfairly take out of the system much more than what they put it. Some evidence indicates that many workers' last wages are considerably higher than the rest of the wages during their careers, precisely to 'game' the pension system. The fair measure would be to respect the linkages between contributions and benefits, hence, to consider the same wage base for contributions and pension calculations (which should cover the entire career since the individual contributes for the entire career as well).

While the system in Iraq is only based on the average salary for the most recent three years, international practices calculate pensions using life-time earnings average. When the base for calculating pension is restricted to the best (highest wages), final years in the career life, benefits can be unfair and can open the system for abuse, such as introducing major increase in wages toward the end of career life just before retirement. Also, this results in employees with different career paths being treated differently, as well as in creating a huge difference in the pension entitlements. For instance, consider the case where an employee has constant pay over his or her career life, while, for another, the pay increases with age. When the lifetime earning is considered as a base for calculating the pension entitlement, the different between the two cases will be reduced. Meanwhile, when the final salary (1-3 year average) is considered, higher pension payment will be the result, in the case with pay increase. Using life-time earnings average to calculate pensions in Iraq would require revaluation of early years' income salaries.[160] Usually, inflation, GDP growth, or growth in the economy-wide average earnings are used to adjust the salaries over the period used for calculation (which could be lifetime, 10, 15, or 25 years, depending on the country policy. This policy option will improve equity of the system, as well as ensure more fairness mainly for people with different payment and career patterns.

Survivorship benefits constitute a significant portion of the pension system and therefore produces inequities and adverse incentives. The contributory pension system in Iraq has, today, around 174,000 survivorship beneficiaries, representing 36 percent of all beneficiaries; their pensions represent, on average, around 54 percent of the average wage of contributors. Eligible beneficiaries of survivorship pensions include dependent widows of any age; dependent widowers with a disability; dependent sons and brothers under the age of 21 (age 26 if a student, no limit if disabled); unmarried daughters and sisters; and dependent parents. In addition to being financially unsustainable, the current design of survivorship pensions is also creating considerable inequities and adverse incentives. It tends to disincentivize labor force participation, particularly among youth and women, and produces inequities, mostly between dependents of covered and dependents of non-covered employees.

Three main aspects distinguish survivorship pensions in Iraq (and in the MENA region in general) from the rest of the world: i) wide range of people that are entitled to these pensions, including single/widowed/divorced daughters, parents and single sisters, etc., while in the rest of the world only spouses and children are entitled; ii) entitlement rules (qualifying conditions) —among others—there is no age limit for widow pensions, and no criteria for the number of years a person needs to be married, while in the rest of the world there are more criteria for and restrictions on the entitlement to survivorship pensions,; and iii) benefit levels – in Iraq (and the MENA region) survivors usually have 100 percent of the deceased's entitlement. In most countries, the level is around 50 percent.

A number of countries in the MENA region are currently considering reforming the survivorship programs. However, such reforms have to be carried out very gradually. Considering the culture and tradition of how households have been organized for hundreds of years, reforms should be devised and implemented with the utmost of care and in a holistic manner. For instance, given the important role they play in informal care, women could be considered for parallel benefits for working in informal care. This could be considered when redesigning

160. This is also referred to as valorization, which is the process of adjusting earlier years' earnings to take into account the changes in the costs and standards of living between the time a pension entitlement is earned and the time of retirement.

survivorship pensions. In any case, discussions on the topic are encouraged. Cultural norms in other countries have been similar to Iraq's, before these countries reformed these programs, e.g.: OECD countries, USA, and LAC region. Changes in culture take time, and people need also time to adapt to the reduced benefits and changing qualifying conditions. A high correlation has been observed, in several countries, between high survivorship pension spending and low female labor participation rate. Where survivorship pensions are decreased, an increased labor force participation of women has also been observed.

In addition to the contributory system, more than 65 percent of the beneficiaries of the legacy pensions (covered by the general budget) are survivors. Women are life-time beneficiaries of the survivor pension if they have no other source of income, and this discourages women from working and produces considerable inequities, particularly between women who are dependents of system participants and women who are dependents of the non-covered population. The reliance of the public pension system on the general budget to fund part of the benefits is considered inequitable in itself, as these benefits are being funded by taxpayers who are most likely not covered by any pension scheme.

Having two separate schemes for the private and public sector also creates inequities and adverse incentives (labor market distortions). Despite several attempts made over the past years to unify the public and private schemes, they still operate separately, with different management, system parameters, and benefit packages. The current law provides for the transfer of benefits between the PSSD and SPF and vise-versa. However, this cannot be considered a full integration as long as once scheme is providing more favorable conditions than the other—in this case, the public sector scheme provides more generous benefits. The draft law on Social Insurance, of 2017, presented a proposal to integrate the PSSD and SPF into one integrated scheme providing similar benefit packages for both the public and private sectors. However, the draft law was not passed by parliament. The persisting duality discourages labor mobility between the public and private sectors and exacerbates differentials in compensation. This is deemed to be a major factor discouraging workers from joining the private sector. The size of the public sector in Iraq is very big, and there is a need to create incentives for the private sector to attract labor. Therefore, having an integrated pension system for both sectors will be key for this purpose.

C. Social issues: Coverage and Adequacy

The pension system in Iraq is limited in coverage. In 2019, the total number of contributors (active employees) in the public sector (SPF) reached 3.6 million. Meanwhile, the total number of contributors in the private sector scheme was much lower, at only 230,895 by the end of June 2019. Both schemes cover around 35 percent of the Iraqi labor force; the latter is estimated at 10.4 million in 2019[161]. The recent amendment to Law 9/2014 widens the scope of coverage of the SPF to include the contracted employees working in the public sector. [162]

The pension system in Iraq is generous compared to international practices. An indicator of this generosity is the high accrual rate of 2.5 percent,[163] used to calculate pension salaries.[164] The accrual rate in Iraq is generally higher than the average Arab country and much higher than that of other economies such as Turkey, Italy, and France, whose pension schemes report an accrual rate of less than 1.5 percent (Figure 111). This level of accrual rates means that, after 10 years of contributions, the replacement rate is 25 percent of their salaries. At this rate, and being eligible to retire after 5 years of service, people may tend to leave the system early, all the while securing a lifetime (theoretically) decent pension that they can supplement, for instance, by working in informal activities. To avoid such tendencies, and to maintain the productivity of plan members for the longest duration

161. World Bank, "Labor force, total – Iraq" (Washington, D.C.: World Bank Group, 2021). Grouphttps://data.worldbank.org/indicator/SL.TLF.TOTL.IN?locations=IQ&most_recent_value_desc=true.

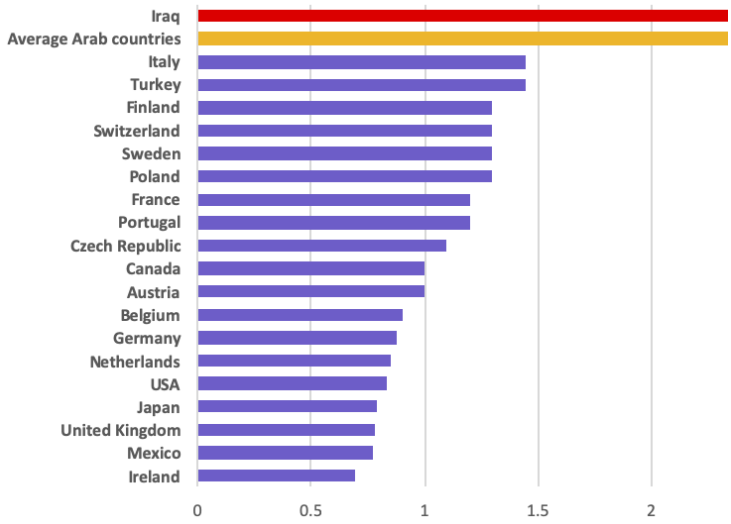
162. We should inquire further about the number of added employees as a result of the provisions stipulated in the amendment of 2019.

163. The accrual rate is the rate at which pension benefit is built up as pensionable service in a defined benefit scheme, usually expressed as a fraction or percentage of pensionable salary, e.g., 1/40th (or 2.5 percent) for each year of service. Another way to express the accrual rate is: if it is 1/40th (or 2.5 percent), it means that an employee needs to contribute a vesting period of 40 years to get a pension salary equivalent to his/her last salary (or any average salary considered as a base for calculating pension rights).

164. The formula for pension calculation: Pension salary = accrual rate of 2.5 x average salary over the past 36 month x vesting period (years in service for which pension deductions were paid by the employee).

possible, the accrual rate should be set at a much lower level so members hoping to get higher replacement rate will have interest in contributing more to the system and in spending longer periods in productive employment.

Figure 111. **Accrual rates: International comparisons**



SOURCE / OECD and WB pensions database

On the other hand, the pension system in Iraq lacks an appropriate mechanism to automatically adjust benefits and protect pension income against loss in purchasing power in response to price inflation. International experience reveals that indexing pension salaries to inflation, partially or totally, is a good practice to protect the purchasing power of pension salaries and to compensate for price shocks. Iraq has not yet introduced such a mechanism, which is critically important and could be traded for introducing key reforms to improve adequacy of the systems (making it less generous and more equitable for instance). Under the current pension arrangements in Iraq, the pension salaries are not subject to any indexation, which exposes the retirees to serious risks and vulnerabilities in the case of purchasing power deterioration, triggered by inflation and price hikes. When pension payments are regularly adjusted, the living standards of retirees are protected against inflation. Pension payments for an individual can last for long periods that could reach 20 years or more, depending on life expectancy. The payment period can be substantially longer in the case of low statutory pension age and survivors' benefits, which is the case in Iraq. Even in countries with a low inflation rate of 2 percent, the real value of an unadjusted pension falls by a third over a 20-year-long retirement, and an inflation rate of just 3.5 percent can wipe out half of the pension's purchasing power. It is commonly a good and fair practice that pensions are indexed after retirement in line with price inflation. Otherwise, the real number of benefits received across the retirement period would arbitrarily vary with the prevailing rate of inflation. Retirees in periods of low inflation would be better off than those facing higher price rises. Price-indexation of pensions in payment is the most common policy, and is followed by most OECD countries. Sometimes, there is a significant time gap between policy and practice. Adjusting pensions in payment has been rather different, in practice, than what is established in terms of policy in many countries. Some 40 percent of OECD countries have either frozen benefits or put a cap on benefit increases since 2010. However, setting clear and fair regulation is a first step. In this regard, we can look towards the Social Insurance law of 2017, which indexes pensions to inflation.

4.3 Conclusion and Policy Recommendations

As explained in this chapter, the pension system in Iraq was supposed to be financially self-sustainable; however, revenues from contributions will soon be insufficient to cover the expenditures and liabilities of pension benefits. Unless proper reform measures are considered (beyond the current draft pensions law), the system will have to increasingly rely on the general budget, crowding out resources for other important programs in Iraq (i.e., social safety nets, health, education, etc.).

The public sector scheme offers extremely generous benefit formulas. Today, the average old-age pension represents 258 percent of the average wage of contributors. According to the financial simulations, if the status quo continues, especially with the recently introduced amendments in 2019, the system is expected to run into deficit funding in 2022, i.e., in just two years.

The draft law (2017) currently under discussion at the CoR would need to be revised since it has space for significant improvements. There are almost infinite ways to integrate, reform, and/or design a pension system. The general policy option that the Iraqis had considered in the past to be the best fit for the context of Iraq (and included in draft law of 2017), was to implement a full and rapid integration of both current schemes,[165] further reform the integrated new system based on the principles of international best practices, and expand coverage through various mechanisms, including the implementation of universal minimum pension.[166] It is recommended that many of these aspects be revised.

In order to make sure that a pension scheme is sustainable, the design parameters would need to be aligned. In other words, if the aim is to make the PAYG pension scheme sustainable and self-financed (and non-regressive), then the linkages between the various parameters of the pension system design would need to be respected. Basically, to make a PAYG DB financially sustainable, policy makers can choose only two of the three key parameters: contribution rate, relative pension level, and retirement age. Once two parameters are set, the third is determined endogenously. At the end of the day, demographic changes are not the sole cause of the pension scheme unsustainability, but the intergenerational transfers are increasingly less able to finance the gap for the Iraq pension scheme, since the parameters are inconsistent with long term balance. In order to guarantee sustainability of the system, support of actuarial modeling is required.

There are almost infinite ways to reform and integrate the pension schemes in Iraq, but the most relevant thing is to understand the impacts of the different pension measures. The policy makers in Iraq would need to choose the best fit for the context of Iraq, and to take into consideration various fiscal, economic, and social implications of the chosen reform package. There is a great diversity of potential reform packages, with many possible combinations of different measures and paces of reforms of (applied quickly or gradually), and no single optimal solution exists. There are many trade-offs to consider. However, there are also certain measures that are clearly best practices for the PAYG-DB type of design. These measures maximize the linkages between contributions and benefits and make the system more sustainable, equitable, and fair. Regardless of which combination of measures is chosen, the measures are always considered best practices: (i) using the valorized career life wages for pension calculation, instead of using only the last wages; (ii) automatically indexing pensions to inflation in order to maintain the purchasing power of the beneficiaries; (iii) increase retirement age in line with life expectancy increases; and (iv) penalize early retirement with a reduction factor (actuarially fair factor). Reform packages should also be considered as part of an integrated strategy that beyond financial, should also take into consideration all the social and economic impacts.

It is also highly recommended to implement a clear and transparent financing mechanism. This could include: (i) social pensions (to be financed through the general budget); (ii) legacy pensions (currently financed through the general budget, but gradually phasing-out); (iii) accrued rights for those length of service pre-2006 (ideally those should also be financed through general budget, since there were not any contributions pre-2006, and are also gradually phasing-out); and (iv) expansion of coverage of the active labor force (including alternative and mostly innovative mechanisms for self-employed), by an integrated and reformed system post-2006 (parametric reforms. and perhaps other reforms such as including saving mechanisms for those with irregular income, should be guaranteed in order to ensure a self-financed system that is non- or minimally-dependable on the general budget). Qualifying conditions and benefit formulas of the scheme will need to be reviewed and adjusted with the policy analysis and actuarial unit at the NBP in order to guarantee such financial sustainability, or, at the very least, to have a clear understanding of the future financial needs required to maintain such a scheme.

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165. Considering that the scheme that covers the private sector employees (PSSD) covers only a very small fraction of the labor force, and that the latter's rights are not respected (pensions are not based on the benefit formula established by law, but paid, in practice, as a flat amount), integration should not be a complicated exercise.

166. Although there was never an agreement regarding the general strategy, details would need to be discussed and agreed on for a proper and full implementation of such a strategy. In order to discuss and agree on such details, it is recommended that a policy and technical commission is created.

Policymakers should consider expanding coverage of the active (labor force). Workers in the informal sector are largely unprotected. Self-employed workers and those with flexible work are especially vulnerable and would need to be covered by the pension system. Therefore, policymakers should explore the advantages of a multi-pillar approach that combines basic pensions with some form of retirement savings, in addition to the current type of system design. Incentives and enforcement mechanisms to expand coverage could be put in place once the new integrated and reformed scheme is completed. Characteristics specific to the Iraqi labor force would need to be assessed in order to identify potential alternative (usually innovative) mechanisms to cover specific income groups such as self-employed, and/or low income, and/or informal employees, which are, usually, groups that are not easy to cover using the traditional contributory earnings-related pension scheme.

Policymakers should also consider expanding coverage of the beneficiaries. Those above the age of 63 who do not receive any type of pension because they do not qualify for a contributory type of pension, could receive a targeted social pension (which will represent a minimum pension) from the general budget. Alternatively, a universal minimum social pension could be considered in order to ensure easy coverage to the entire old-age population in the country.

A roadmap and comprehensive reform package should be well assessed in terms of impact on different generations, the labor market, and Iraq's general macroeconomic and fiscal stance. More than 50 percent of pension beneficiaries are actually classified as young, as the system incentivizes early retirement and offers generous survivorship pensions. Numerous details and extensive technical and policy discussions would still be required in order to proceed with the full design and implementation of a national strategy of old-age income support in Iraq.

A well-functioning reform process will need to address the challenges of the political economy of reforms as well as develop sound technical solutions. As recommended above, policymakers in Iraq should potentially consider introducing options such as the social pensions and/or savings accounts, alongside parametric reforms, to compensate for lower benefits from PAYG schemes (after reform). The government would also need to realize that even simple parametric pension reforms can generate strong resistance.

Annex I - **Social insurance system parameters according to the four scenarios**

	Law 9/2014	Amended Law 9/2014	Draft Law of 2017	Reform Package (2020 proposal)
SCHEMES DESIGN	Defined-Benefit, PAYG		Defined-Benefit	
FINANCING				
For Pensions				
Total	25.0%	25.0%	20.0%	25.0%
Total Contribution Rates from Employees and Employers:	25.0%	25.0%	20.0%	25.0%
(as % of covered wage)			7.0%	
From Employees	10.0%	10.0%	13% (25 % from employers working in oil and other hydrocarbon)	
From Employer	15.0%	15.0%		15.0%

Indications

	Law 9/2014	Amendment to law # 9 (November 2019)	Draft law on Social Insurance (2017)	Reform Package (2020 proposal)
ELIGIBILITY CONDITIONS AND BENEFITS	Defined-Benefit, PAYG		Defined-Benefit	
For Pensions				
Retirement Age and/or qualifying conditions	50 (mandatory age 63)	50 (mandatory age 63)	50 (mandatory age 63)	63 and gradually increasing to 65 by 2030
Required Length of Service for Basic Rep. Rates	15	15	25	
Rules for Early Retirement	No provision for early retirement. Only disability& women taking care of children can retire earlier (without penalty)	No provision for early retirement. Only disability& women taking care of children can retire earlier (without penalty)	50 years with 25 years of service (20 years for females meeting certain conditions)	early retirement allowed only with actuarially fair factor reductions
Rules for Delayed Retirement	Compulsory retirement at 63 (except for some exemptions?)	Compulsory retirement at 60 (except for some exemptions?)	For exceptional situation: up to 3 years above the legal age of 65	Compulsory retirement only in the public sector (at 65)
Post-retirement Indexation	Not specified in the law		Indexed to annual inflation Indexed to annual inflation	
Survivors Pensions and Disability Pensions (as % of old-age pension)	80 % for one survivor 90 % of two survivors 100% for three or more survivors	80 % for one survivor 90 % of two survivors 100% for three or more survivors	Indexed to annual inflation 65% for one survivor 75% for two survivors 85% for three or more survivors	Indexed to annual inflation 65% for one survivor 75% for two survivors 85% for three or more survivors
Benefit determination:				
Basic Replacement Rate	37.5%	37.5%	50%	gradually decreasing by 2030 to 30%
Incremental Replacement Rate	2.5%	2.5%	2 % (2.5 % for years of service before the law is effective- 1.5% of other retirement conditions)	gradually decreasing to 2%
Maximum Replacement Rate	100%	100%		
Number of Last Years for Wage Base Calculation	3	3	80%	100% gradually increasing to entire career (40 years) by 2035
Minimum pension		500,000 IQD	400,000 IQD	50% of minimum wage

Annex 2 - **Detailed parameters and rules of current public pension scheme in Iraq**

Parameter/rule	Description
Retirees	Civil retirees Military retirees Politicians: Presidents of the Republic, heads of Parliaments, Prime ministers, parliament's representatives
Retirement rules and eligibility	An employee can become a retiree in the following cases: - Reached 60 years old (as per the latest amendment to law # 9 of 2014 that took place in 2019), regardless of number of years of service - If it was decided by a medical committee that the beneficiary is not able to work - Falls under the following exceptions: university professors and associate professors, specialized doctors, judges, council of state's advisors, and air pilots - Is in a profession excluded by cabinet decisions - His/her retirement age can be extended for specific professions that are not quite common or rarely found, or in cases where the services of the beneficiaries are highly needed. - Upon resignation (or firing): 1. Pension salary will not be paid until the beneficiary is 45 years and has completed 15 years of service (further to amendment of 2019 to law # 9 it used to be 50 years of age and 20 years of service.) Female (married, widowed, or divorced) custodian of her dependent children: • Has 15 years of service • Has at least three children and none of them is above 15 years • Dedicates herself to raising her children - Employees of autonomous agencies that are reporting financial losses for three consecutive years, in case they have 15 years of age and they did not meet the age requirement yet. - Suffering chronic disease and found not able to resume work regardless of age and years of service.: the beneficiary is considered as though he/she has 15 years of service. - In case of work accidents resulting in disability: • At a disability rate of 65% or more: In case the beneficiary has less than 15 years of services, he/she is treated as if having 15 years of service • In case the disability rate is 100%, 35 percent of the last wage is added to the beneficiary's retirement salary • In case the disability rate is between 65 percent and 100 percent, the beneficiary gets 35%X (disability rate percentage) of the last wage added to the retirement salary • Death
Contributions and years of service	- Monthly deduction of 25 % of monthly salary: •10 % paid by the employee •15 % paid by the treasury - Years of services included in the calculation of the pension salary cover the following • Actual years of services • Years for which the beneficiary was not in actual service, but for which contributions were paid • Years of education and training for military and security forces • Duration of contracts for contracted temporary contracted individuals • An duration extending beyond the retirement age • For specific professions such as lawyers, journalists and farmers, the service limits is set by the relevant laws organizing these professions. - In case an employee moves from the public sector to the private sector: • The years of services spent in the public sectors are accounted for in PSSD and the accumulated contributions paid by the beneficiary are transferred accordingly to PSSD. - In case an employee moves from the private sector to the public sector: • The years of service spent in the private sector are accounted for by the SPF. The PSSD transfers the accumulated contributions paid by the beneficiary to the SPF. The difference in contributions is steeled by the beneficiary (as the contribution rate is different between the two systems). The years of service in

	the private sector should not exceed the number of years spent in the public sector. - Not included in the years of services are the following: • Any period for which no pension contributions were paid • Unpaid leaves • Any periods spent in jail/ under arrest • Any years spent in service before reaching the age of 18 years • Any years spent following the legal retirement age
Pension benefit calculations	- Eligible for pension salary is any employee who completed 15 years of service: • However, the pension is paid when the beneficiary reaches the age 45 years (per amendment of 2019, it used to be 50). • The pension is calculated on the actual years of service and not on the bridge period to reach 50 • Exception includes martyrdom, death, and those who retire for health reasons - The pension salary is calculated as follows • Average salary x number of years in service x 2.5 percent • Number of years in service = number of months in service/12 • Average salary is the average salary paid during the past 36 months • The pension is calculated on the actual years of service and not on the bridge period to reach 50 - Exceptions includes martyrdom, death, and those who retire for health reasons - Minimum pension is set at ID 400,000 (including benefits) - For retirees who reached retirement age, those who retire for health reasons, or those have 2 or more dependent dependents, the minimum pension is set at ID 460,000 . - Pension salary should not exceed the last wage earned by the beneficiary. - In case the beneficiary reaches the retirement age and has not accumulate enough years of service: • For those with years of service between 10 and 15 years, beneficiaries can get a lumpsum of 150,000 IQD for at least 10 years of service, 200,000 IQD for at least 11 years of service, I50,000 IQD for at least 12 years of service, 300,000 IQD for at least 13 years of service, and 350,000 IQD for at least 14 years of service. - In case of death: • In case the employee has 15 or more years of service, the pension calculated and paid as of the date of death even if the deceased beneficiary did not reach 50 years of age. - For employees with vesting period of 25 + years: • In addition to the pension salary, the employees can get a lumpsum amount (as a reward) that is equivalent to: last wage (including benefits) x 12. - For the Iraqi army (of the old regime): • pension salaries are calculated for those having at least 15 years of service. - Retirees cannot combine two retirement salaries based on different laws. - Employees with less than 15 years of service: • Can get a lumpsum calculated as: Last salary x 2 x years of service (a fraction of a year is considered as one year) For High rank officials (president of the republic, speaker of the house, prime minister, Parliamentarian, National Council members, General secretaries in Ministries and others, the pension salary is calculated as follows: • 25 percent of the last salary + • 2.5%*last wage and benefits*years of service (it should not exceed 80% of the last wage and benefits)

Reappointment of a retiree	- In case a retired employee was reappointed and he/she got a lumpsum upon his/her retirement: • The employee should pay back the lumpsum amounts previously paid. • The years for which the lumpsum was paid are considered as vesting period for future pension calculation. • The employee has to settle any differences in contributions (based on the level of wage at reappointment). - In case the retired employee was reappointed and he/she used to have a pension salary • The reappointed employee starts receiving a salary/compensation for the services and the pension salary stops being paid. • It is not allowed to combine the pension salary with any other payment • The employee may choose between the two (pension or compensation). - Reappointed retirees can accumulate additional pension periods to their years of service before they first retired - Pension salary after reappointment should not be less than the pension earned prior to reappointment:
Survivor benefits	- In case the employee dies, the vesting period is set at 15 years even if the actual years of service are far less than this figure. The added years are exempted of contributions. - In case the employee died (while in service), survivors are entitled to get the minimum pension. - The survivors include: • Husband or wives • Son • Daughter • Mother • Father • Brother or sister in case the beneficiary is single and his/her parents are dead - Survivors should not be existing beneficiaries of any other pension benefits and should have no other sources of income in the private sector, according to the following rules: • Son or brother until they are 18 years of age, 22 years old in case they are still in secondary school, or 26 years old in case they're pursuing university education • Daughter or sister in case they are single or have no other support • Wife as long as she is single • Husband or father in case of disability, including those who reached the age of 63 • Sons, regardless of age, in case of disability - When the beneficiary dies the pension salary is distributed as follows: • 80 percent in case of one survivor • 90 percent in case of two survivors • 100 %percent in case of three or more survivors - In case the survivor already has a pension benefit, he/she can choose between keeping his/her own benefit or replacing it with the survivor (whichever is higher). • Survivors cannot combine more than one pensions benefit.
Financial provision	- The General Budget covers: • Pension benefits for those who retired before 1/1/2006 • End-of-service benefits • any other pension benefits not subject to Law 9/2014 - The Social Protection Fund covers: • Pension benefits for those who retired after 1/1/2006 • Lumpsum amounts and disability allowances

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