

EQUITABLE HUMAN CAPITAL DEVELOPMENT IN KAZAKHSTAN: A ROUNDTABLE DISCUSSION

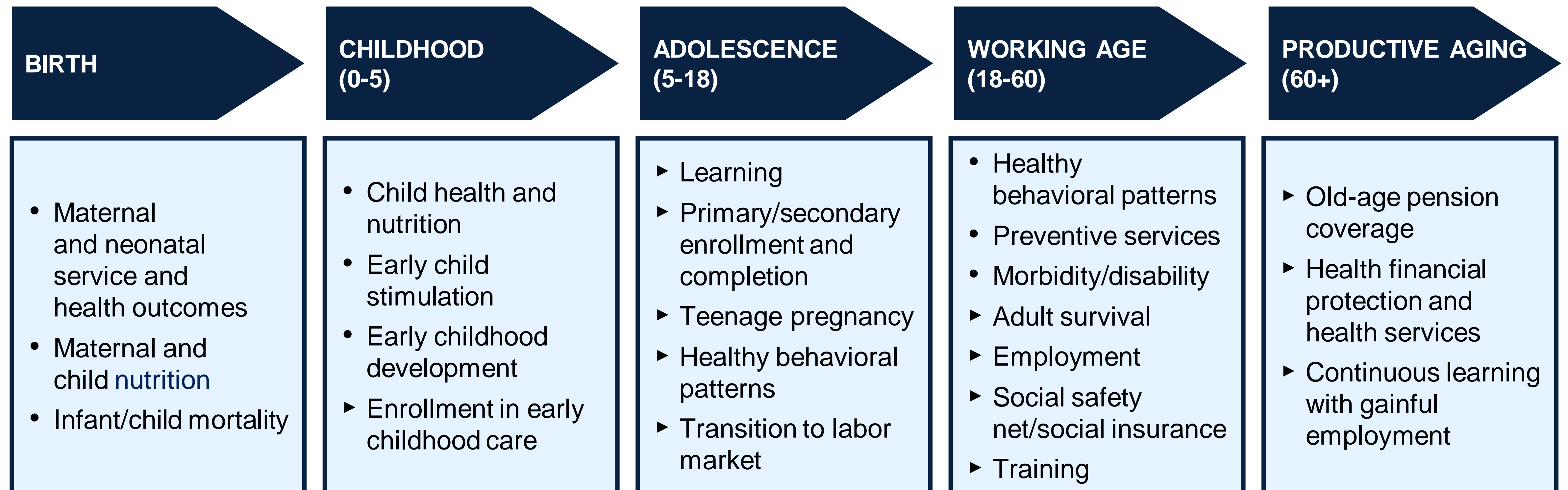
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APRIL 27, 2021



Human Capital: What, Why and How?

Human Capital in the Lifecycle



Poverty & Vulnerability, Socio-Cultural Sources of Behavior, etc.

Human Capital: A Foundation for Growth

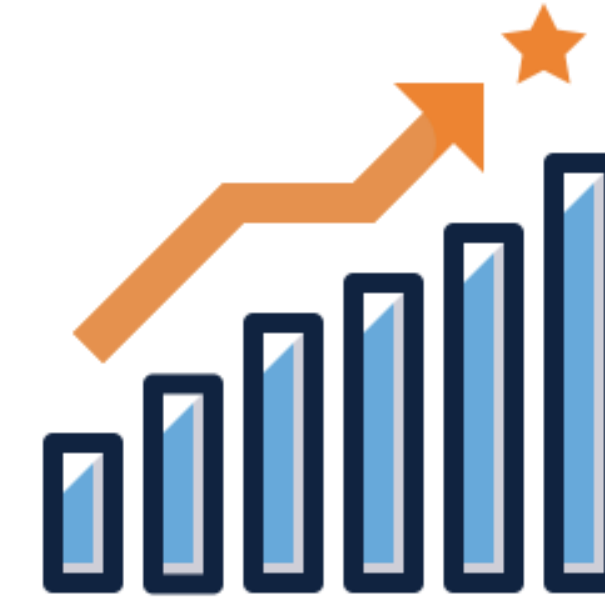
“A DEVELOPED COUNTRY IS, FIRST OF ALL, HEALTHY, EDUCATED AND PROSPEROUS PEOPLE”

President Tokayev of the Republic of Kazakhstan, 2021



INDIVIDUALS

Investment in human capital is a dynamic process akin to investment in physical capital



ECONOMIES

Human capital is a key ingredient for higher income and growth



SOCIETIES

Education is associated with more civic participation, trust, and political awareness

World Bank's Approach

Human Capital Project

Announced in 2017

Brings together decades of World Bank research

Creates the political space for national leaders to prioritize transformational human capital investments



Human Capital Index (HCI)

Represents the productivity in adulthood of a child born today if he or she enjoyed complete education and full health until age 18.

Key components:

1. Child survival
2. Expected years of basic education, adjusted for quality
3. Overall health environment

Why is it Important for Kazakhstan to Invest in Human Capital?

**Kazakhstan is a
leader in Central
Asia in
measuring human
capital**

Active participation in international assessments

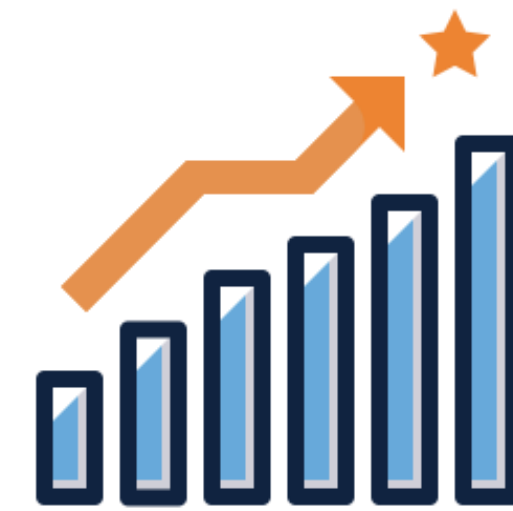
- PROGRAMME FOR INTERNATIONAL STUDENT ASSESSMENT, PISA (2009, 2012, 2015, 2018)
- TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY, TIMSS (2007, 2011, 2015, 2018)
- PROGRESS IN INTERNATIONAL READING LITERACY STUDY, PIRLS (2016)
- PROGRAMME FOR THE INTERNATIONAL ASSESSMENT OF ADULT COMPETENCIES, PIAAC (2018)
- TEACHING AND LEARNING INTERNATIONAL SURVEY, TALIS (2018)
- MULTIPLE INDICATOR CLUSTER SURVEY, MICS (2006, 2010, 2011, 2016)
- TORINO PROCESS (STARTING 2011)
- INTERNATIONAL COMPUTER AND INFORMATION LITERACY STUDY, ICILS (2018)
- OECD REVIEWS

State of Human Capital in Kazakhstan in 2020

0.63

HCI SCORE

as of 2020, before COVID-19



4 POINT INCREASE

in 2010-2020, mostly due to improved health and access to schooling



HARDEST GAINS

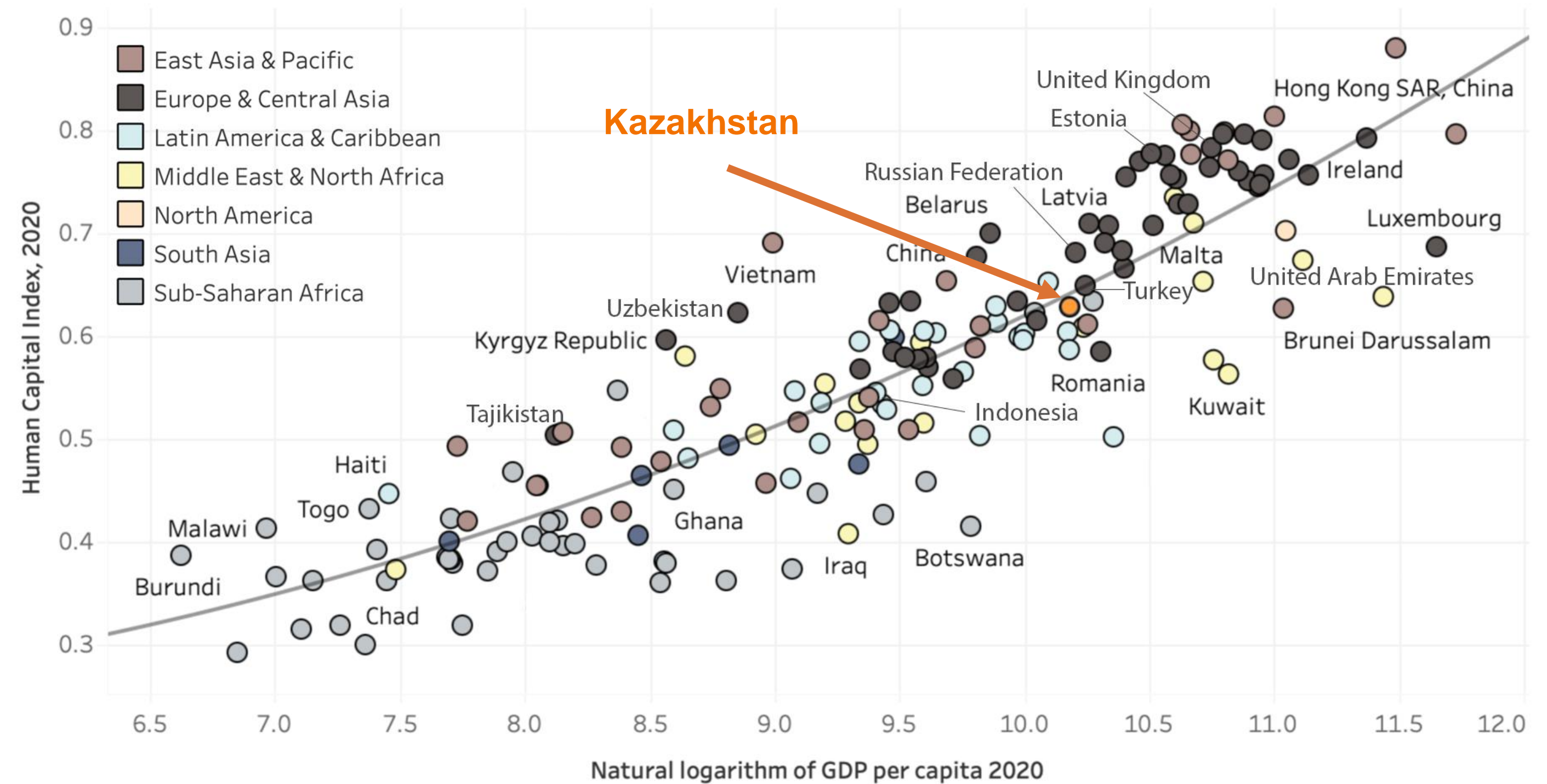
In education quality

In 2020 (pre-COVID), a child in Kazakhstan was expected to achieve an average of **63%** productivity

Kazakhstan's Performance is Broadly Aligned with GDP

Human capital is broadly associated with higher GDP per capita

Some countries perform better than their national income would indicate – Vietnam, Russia, Estonia, Kyrgyz Republic and Belarus

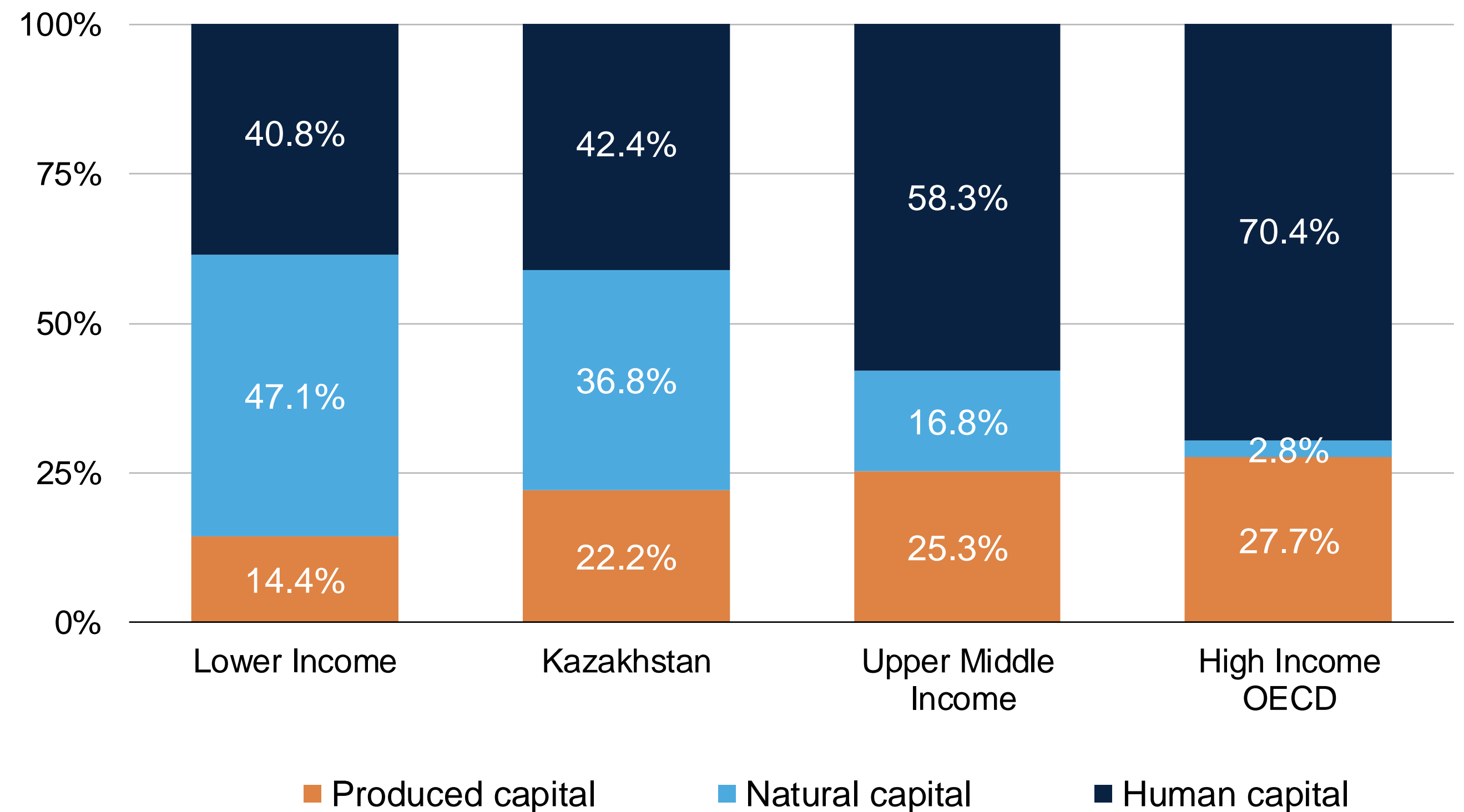


Source: World Bank



The Contribution of Human Capital to the Kazakh Economy is Inadequate

Share of type of capital to total national wealth, 2014



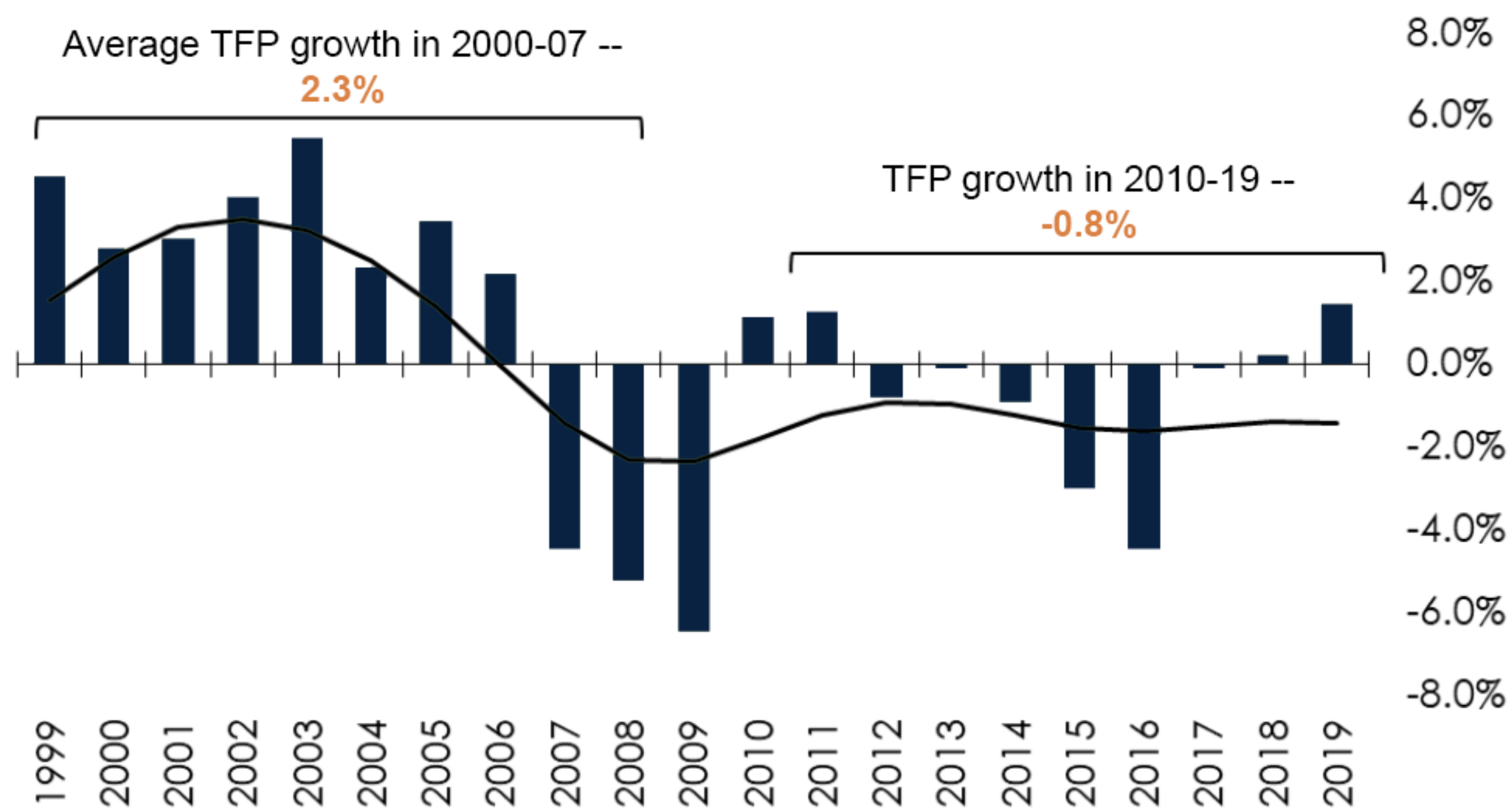
Higher income countries – generally bigger share of capital is human capital

OECD = Organisation for Economic Co-operation and Development
Source: World Bank

Productivity Growth in Kazakhstan is Decreasing

Total Factor Productivity (TFP) growth rate, Kazakhstan, 1999-2019

Actual Trend



Knowledge and skills embodied in humans raise productivity

Productivity growth in Kazakhstan has fallen



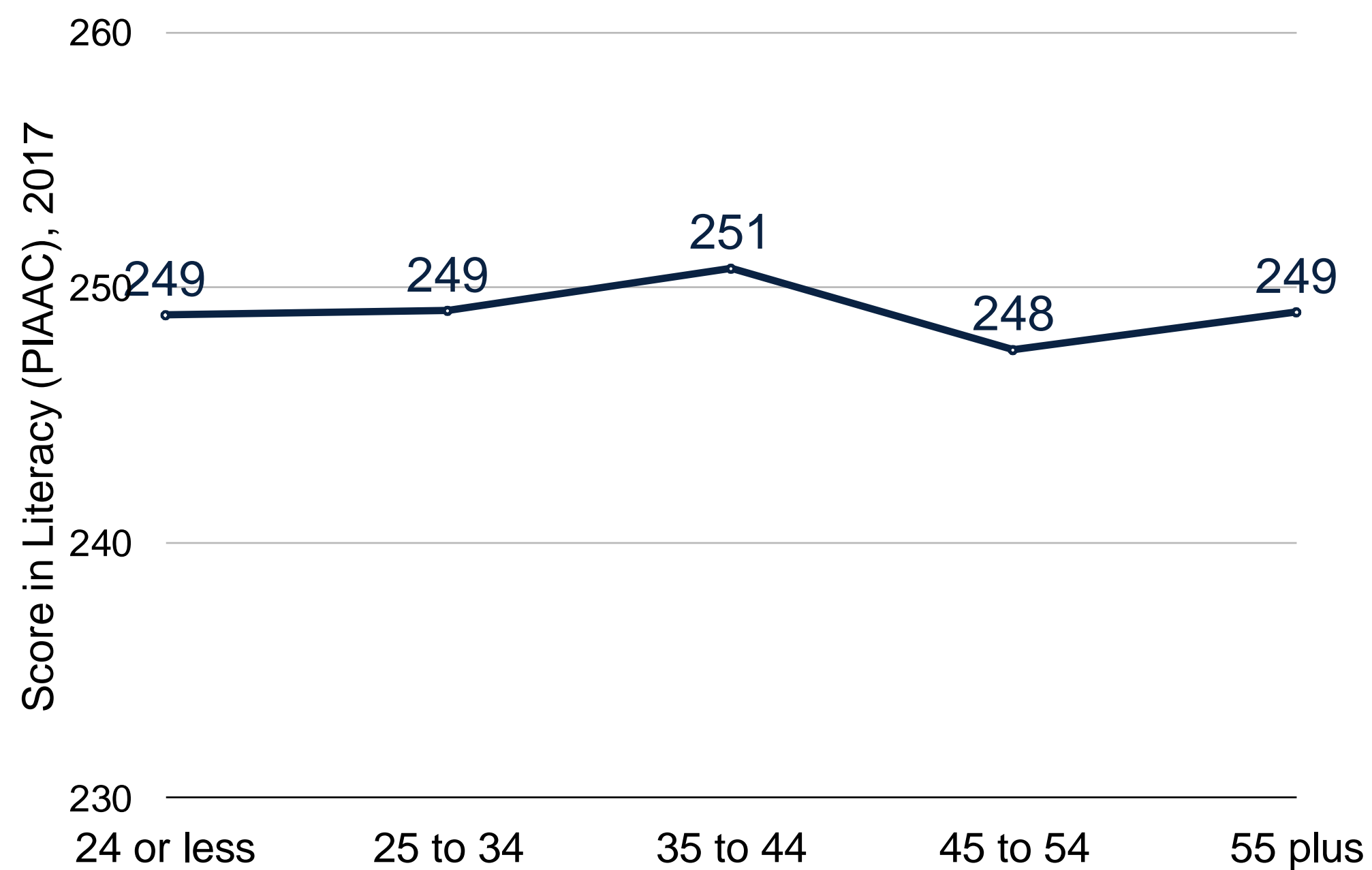
To facilitate economic growth and achieve the goals of the **Kazakhstan 2050 Strategy**, it is crucial to invest in human capital

Source: World Bank

Investment in Human Capital is Fundamental for Further Growth

Human capital in Kazakhstan has not increased in the last 30 years ...

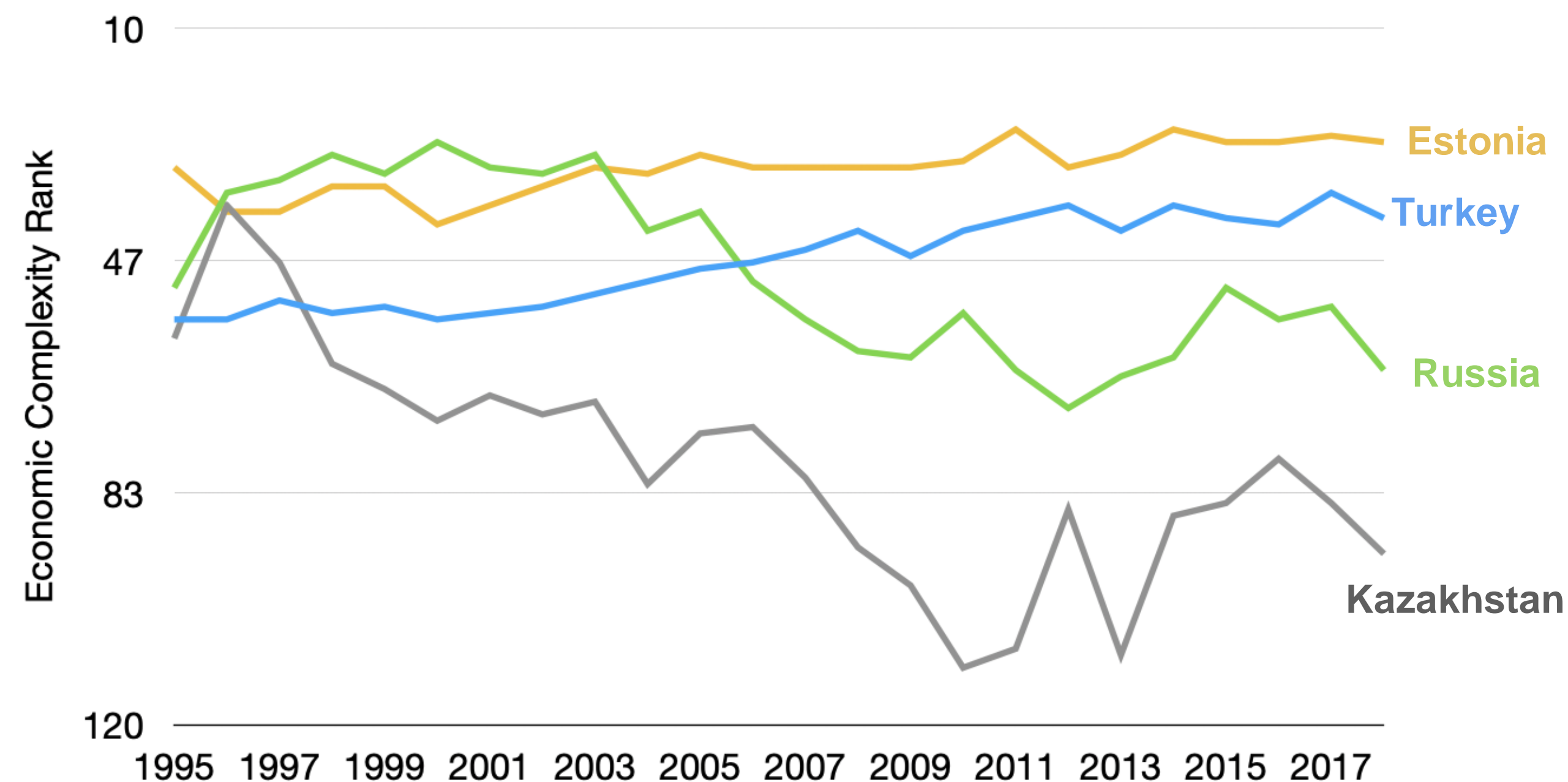
Score in Literacy, Survey of Adult Skills (PIAAC), 2017, Kazakhstan



Source: OECD

... Limiting the country's ability to produce complex and high value products

Countries' Ranking by the Economic Complexity Score, 1999-2019



Source: Harvard Growth Lab, Atlas of Economic Complexity

What is Challenging Kazakhstan's Human Capital Development?

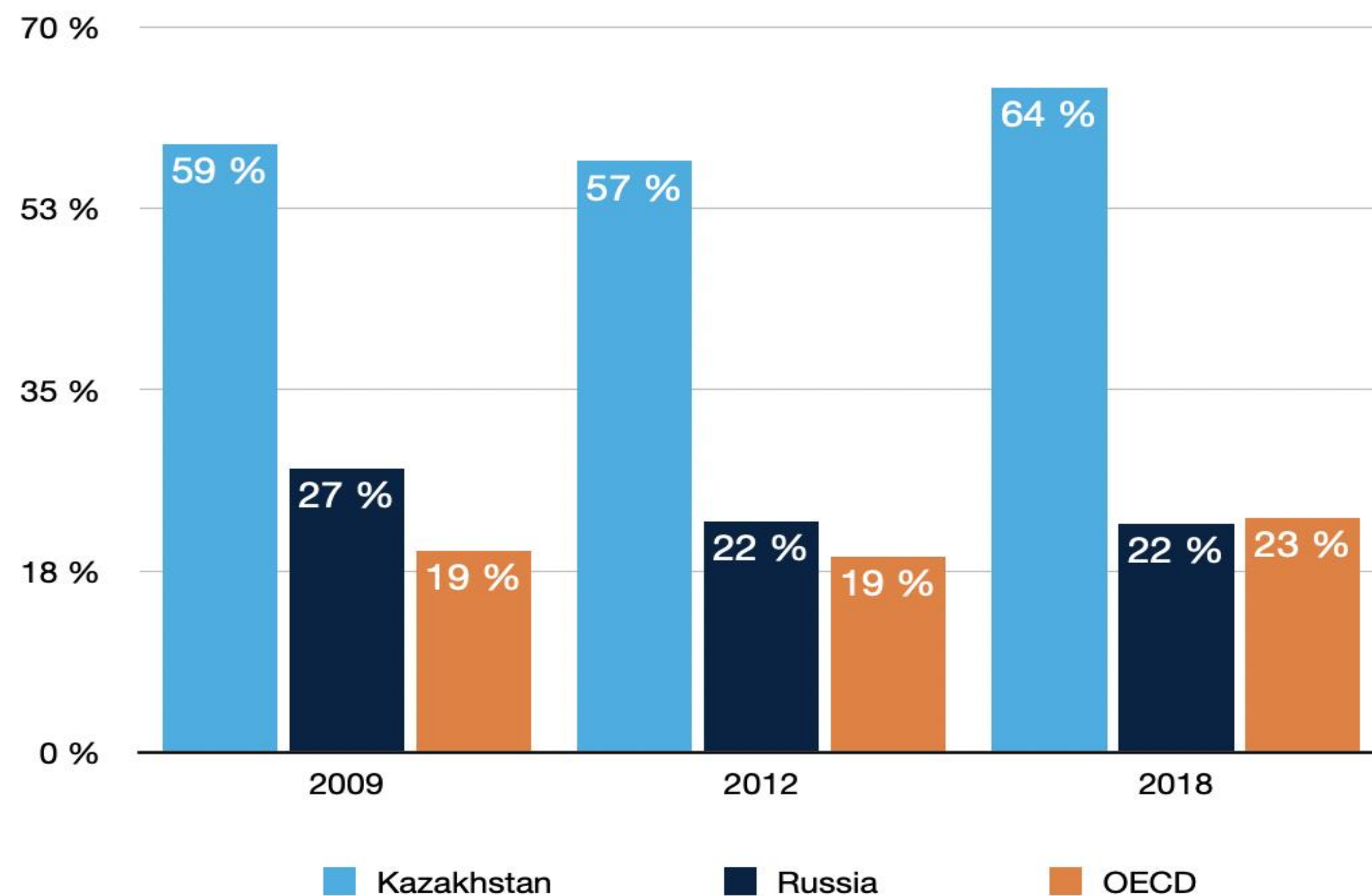
State of Human Capital in Kazakhstan in 2020

In 2020 (pre-COVID), a child in Kazakhstan was expected to achieve an average of **63%** productivity

Component	Indicator	Kaz 2020	Max	OECD 2020
Survival	Probability of Survival to Age 5	0.99	1	1
Schooling	Expected Years of Schooling	13.7	14.0	13.4
	Harmonized Test Scores	416	625	505
Health	Survival Rate from Age 15-60	0.85	1.00	0.92
	Fraction of Children Under 5 Not Stunted	0.92	1	0.99
Overall HCI		0.63	1	0.74

School Education Quality

Percentage of students scoring below PISA Level 2 in reading (%)



Comparatively good performance on TIMSS, but not on PISA

PISA mean score in mathematics improved from 2009 to 2018

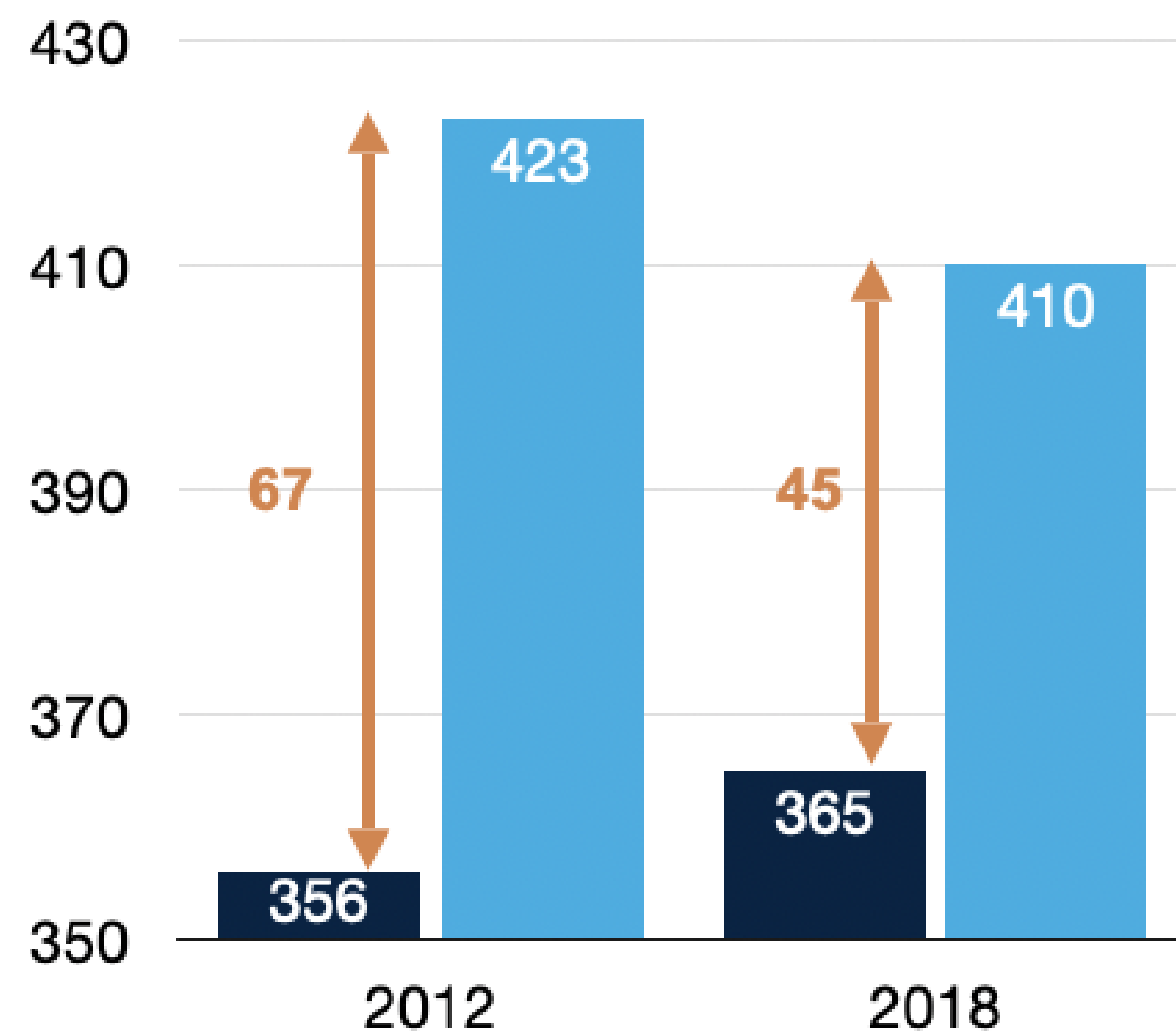
PISA mean score in reading and science declined from 2009 to 2018

In the latest PISA, a significant proportion of Kazakhstanis are **below Level 2**

PISA = Programme for International Student Assessment
OECD = Organisation for Economic Co-operation and Development
Source: OECD

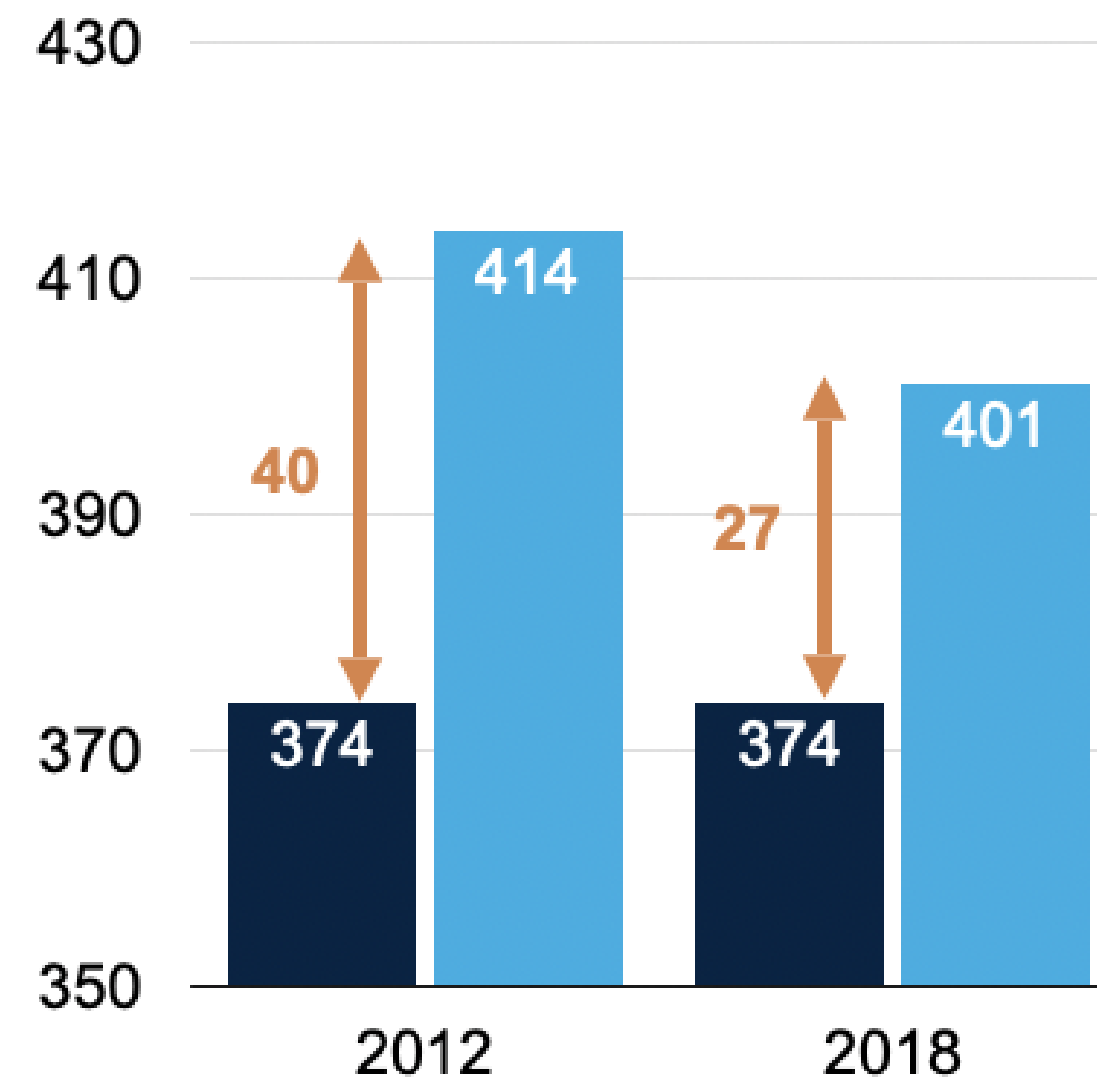
Trend in PISA scores in Reading: 2012 - 2018

By socio-economic status (ESCS)



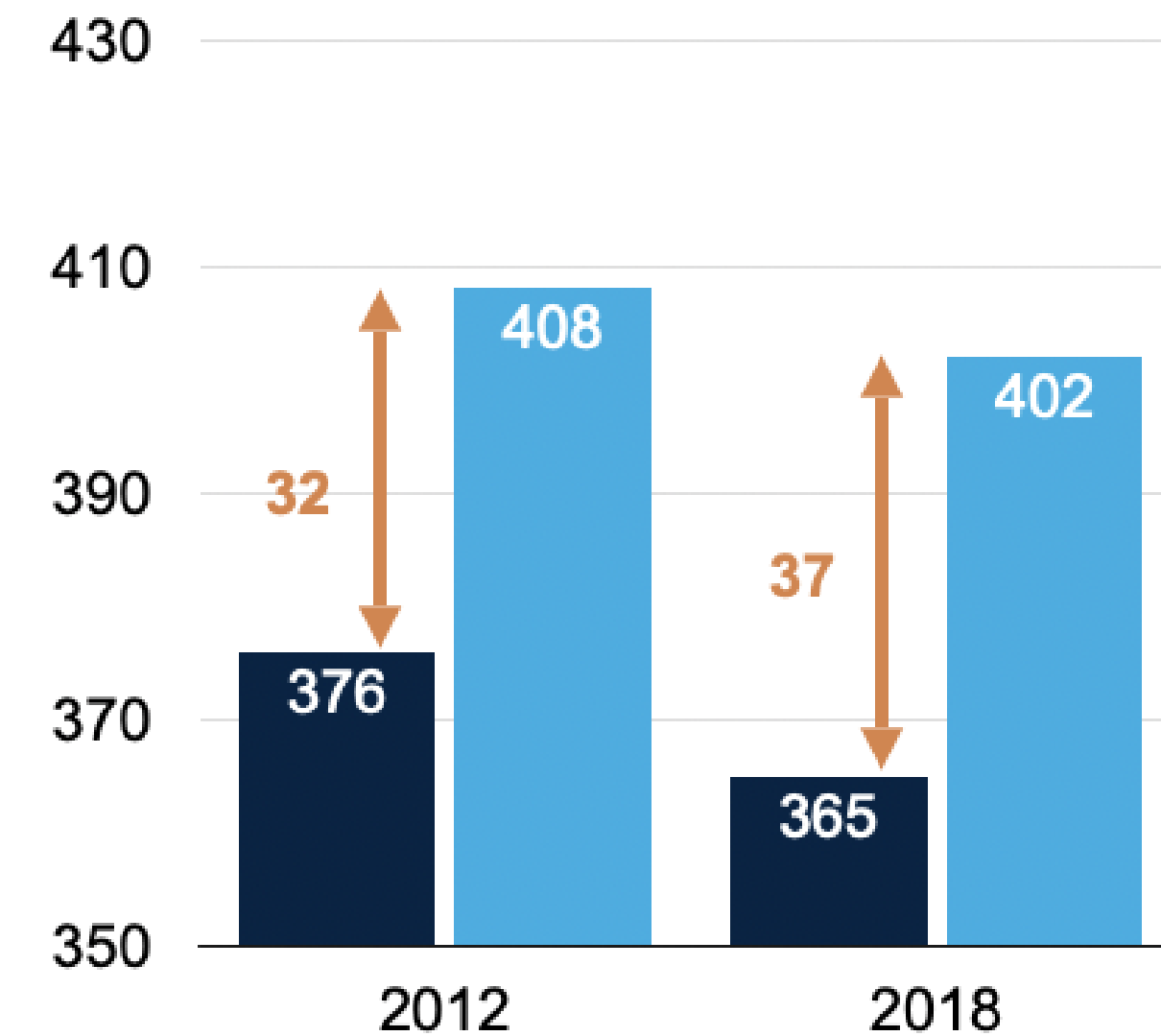
■ Bottom quarter by ESCS
■ Top quarter by ESCS

By gender



■ Male
■ Female

By school location

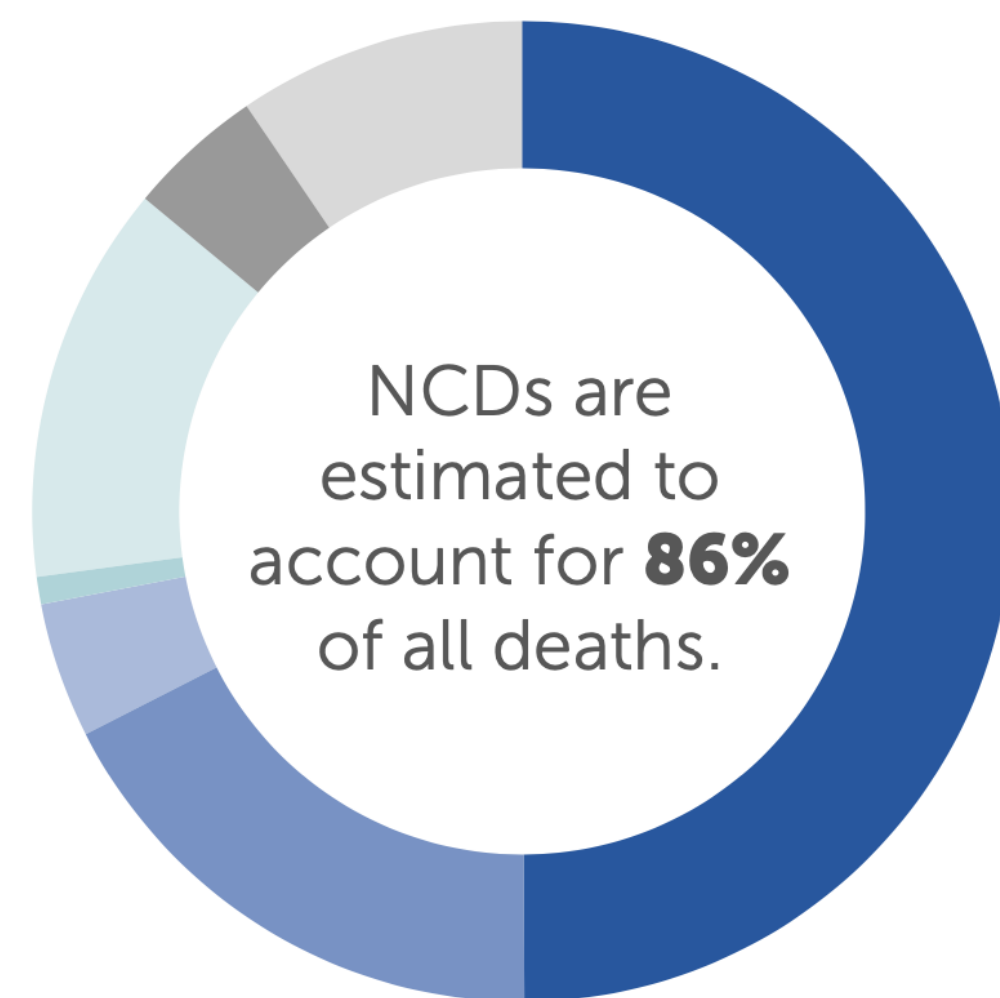
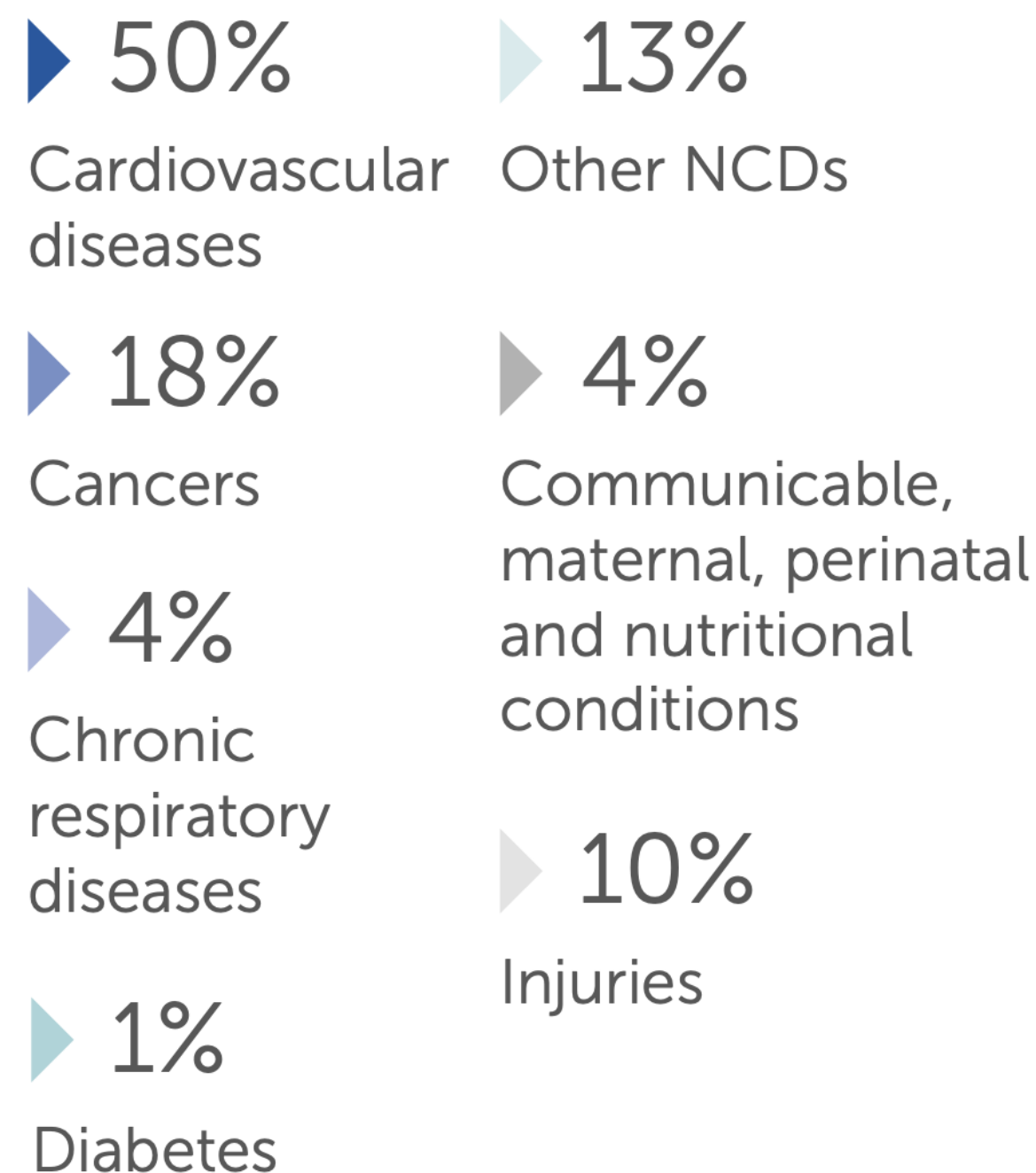


■ Rural
■ Urban

Source: World Bank

Key Risk Factors for Kazakhstan's Health

Proportional mortality, Kazakhstan, 2016



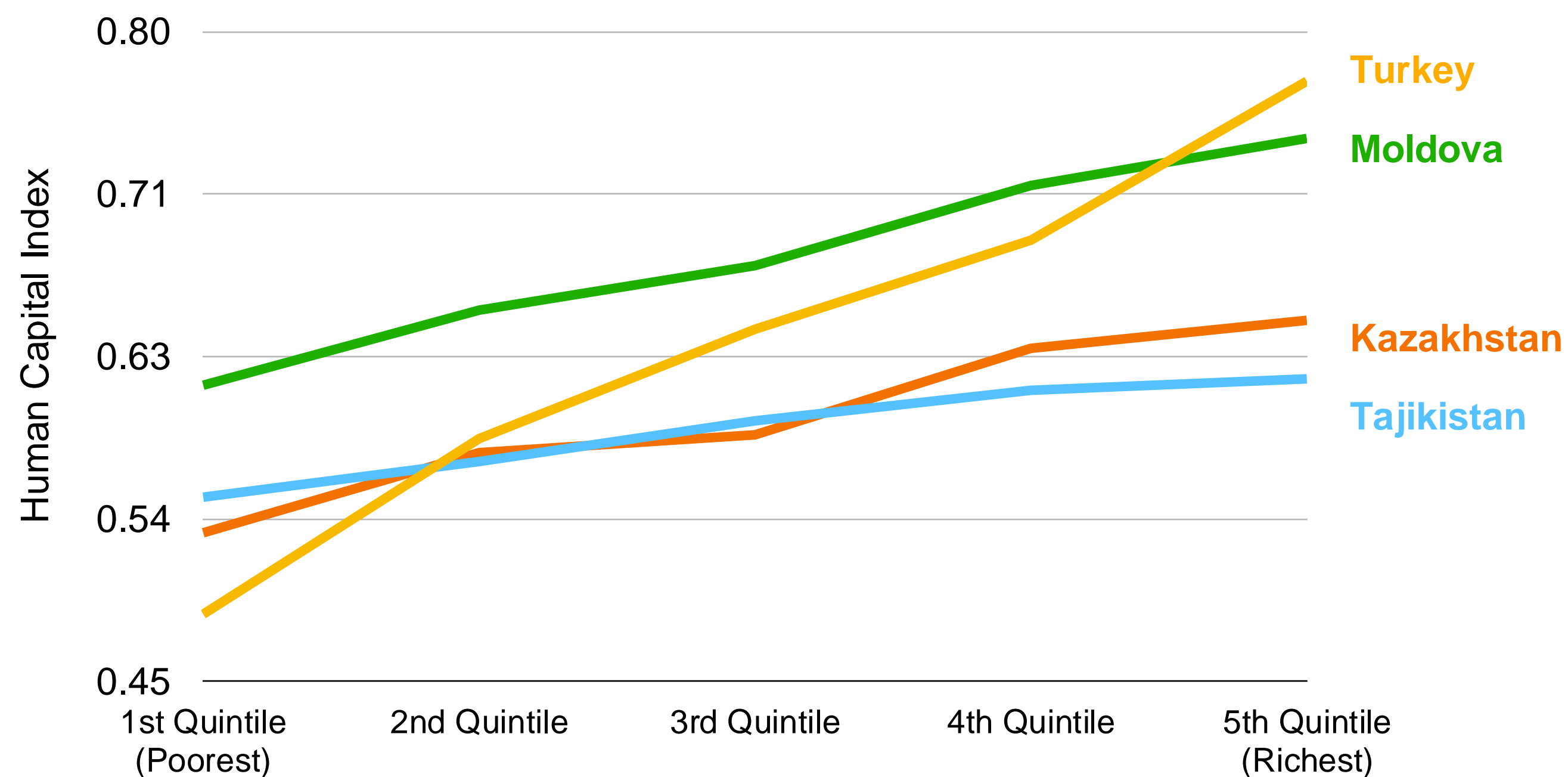
Tobacco smoking, obesity, hypertension, and alcohol drinking are the key risk factors driving cardiovascular diseases which account for 50% of all deaths in Kazakhstan

These risk factors also increase incidence of cancers

Source: WHO

Human Capital Varies Substantially Across Income Groups

Socioeconomic disaggregation of the Human Capital Index for selected countries

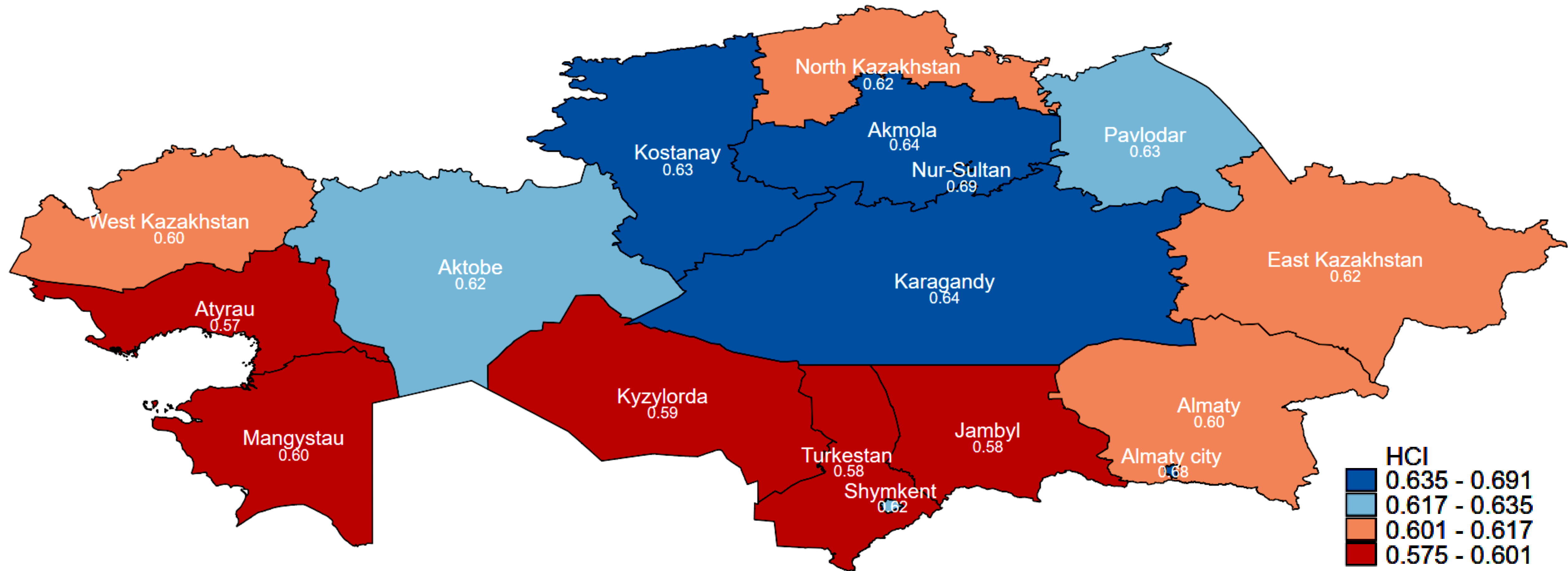


Estimated using 2018 data
Source: World Bank

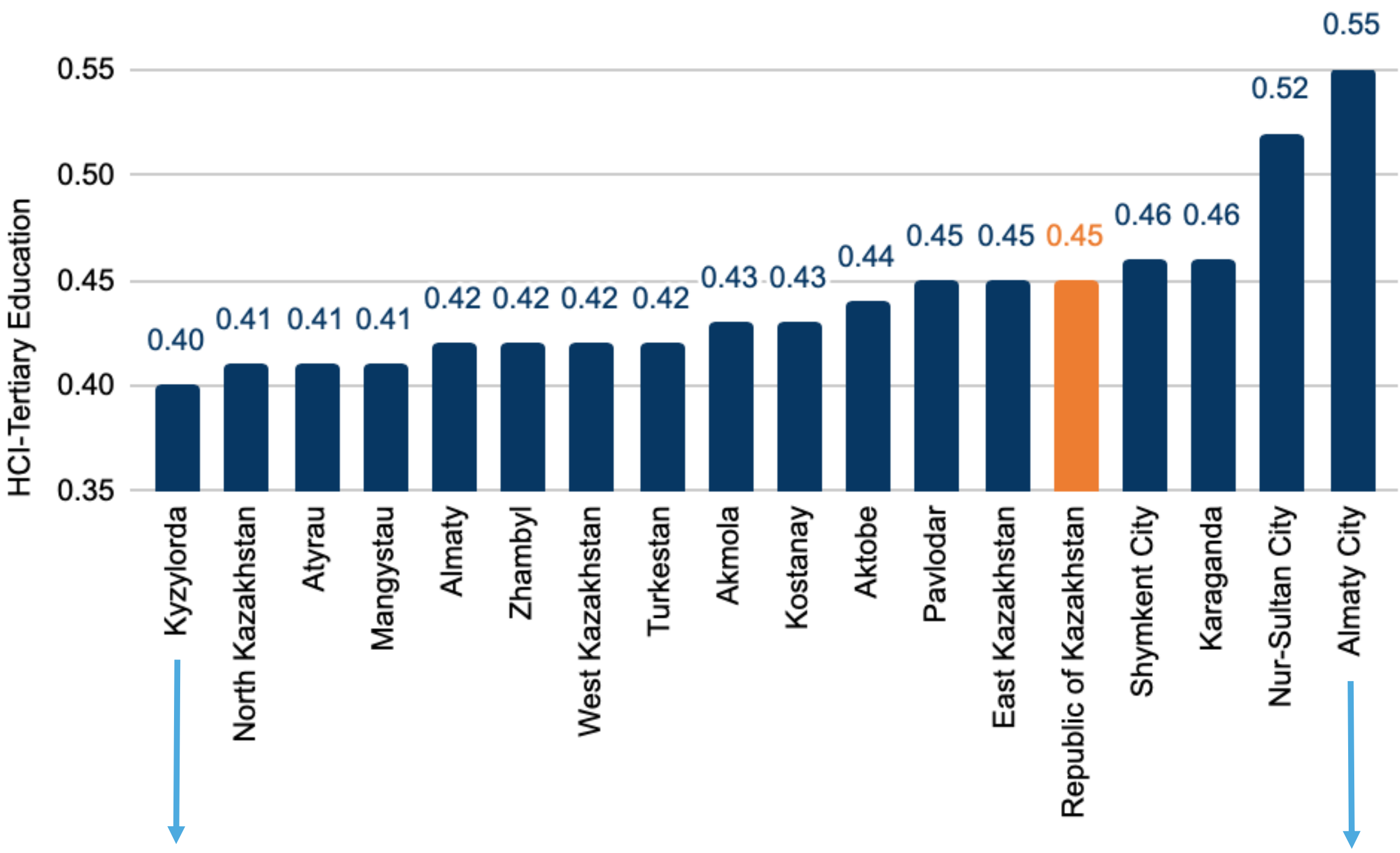
Inequalities by socio-economic status are lower than in some comparator countries

Necessary to build reforms around equity, given that vulnerable populations lag behind

Significant Inequalities Exist Across Regions



Higher Education Performance is Varied



HCI-Tertiary score is close to: **Kyrgyz Republic**

HCI-Tertiary score is close to: **Austria**

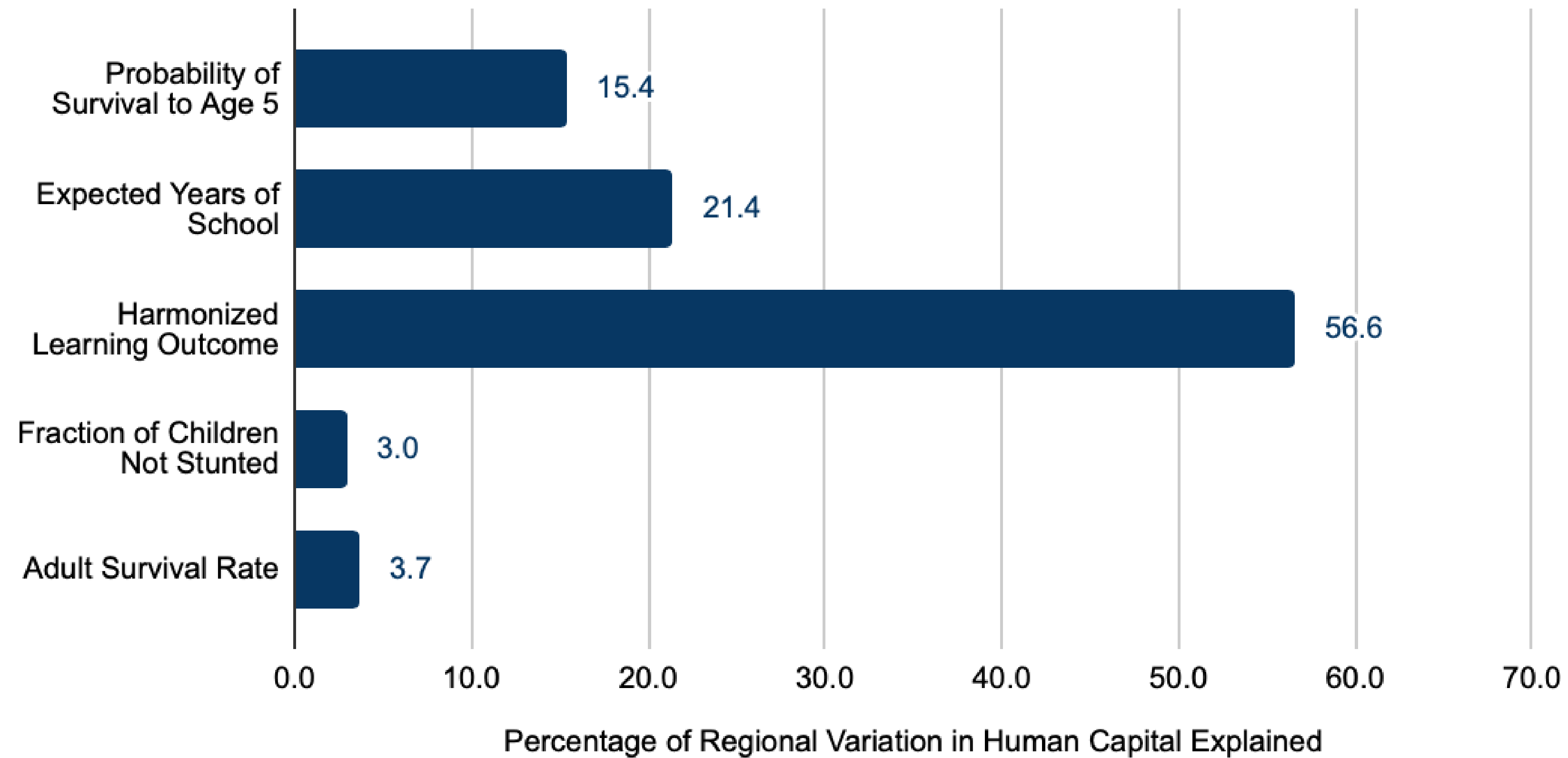
When including the measures of higher education attainment and quality, **overall performance goes down**

Even larger gap exists across regions - **Kyrgyz Republic versus Austria**

Source: World Bank

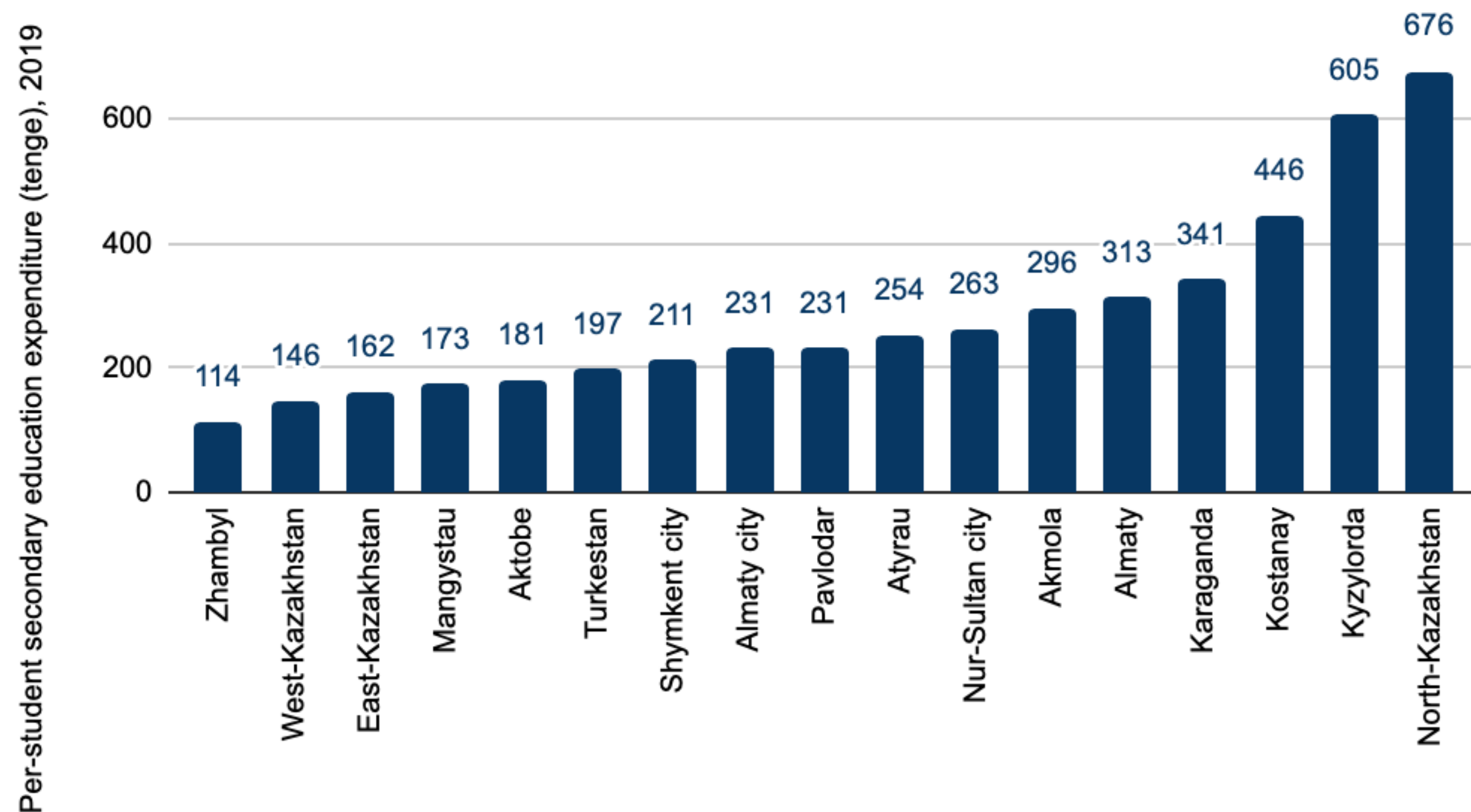
What are the Key Contributors to Rising Inequality in Kazakhstan?

Drivers of Regional-Differences in Human Capital



Education Expenditures Differ Significantly Across Regions

Per-student secondary education expenditure, Kazakhstan, 2019 (tenge)



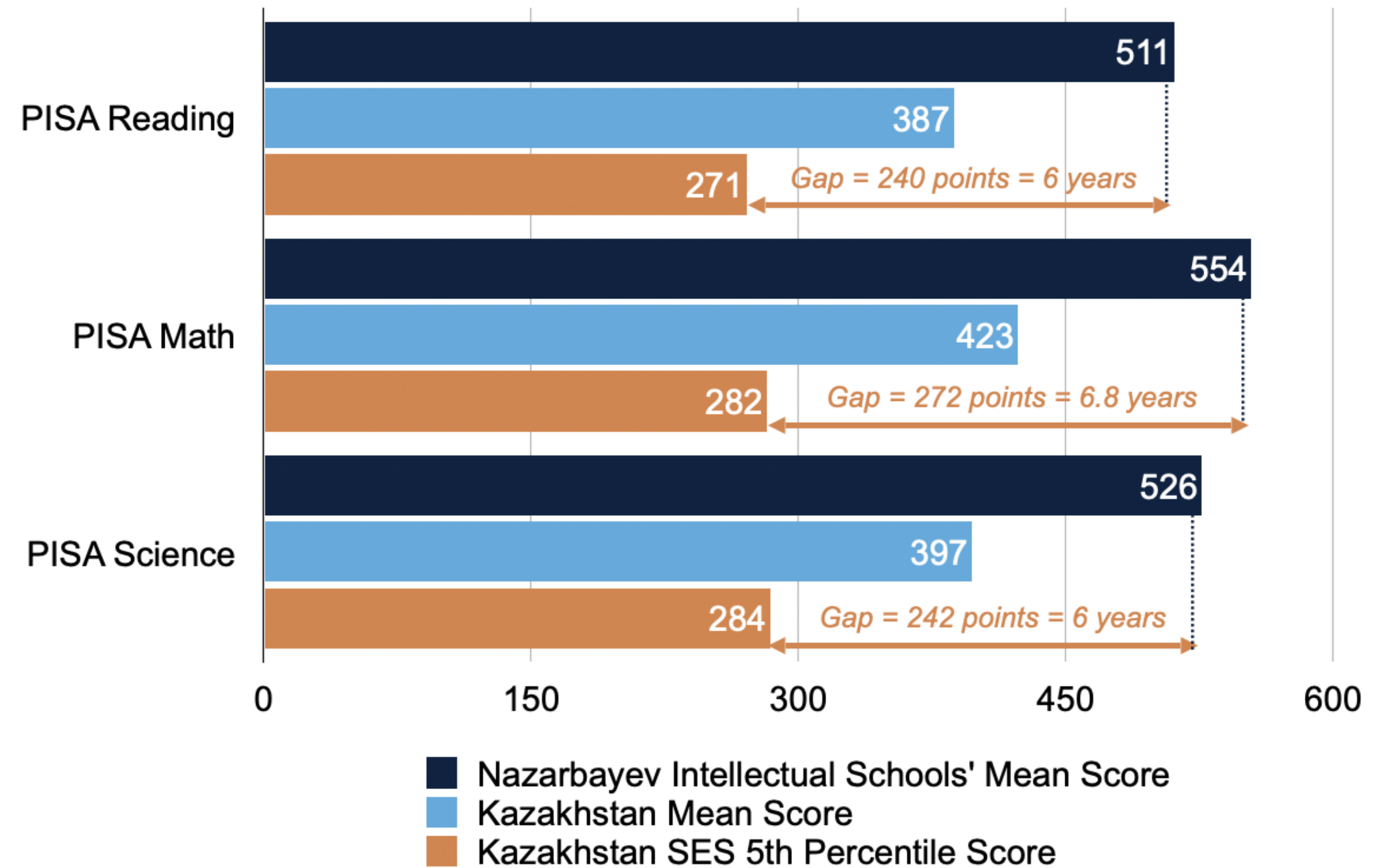
The difference between Zhambyl and North Kazakhstan is over 6 times

Source: IAC

Education Policies Contribute to differences in performance

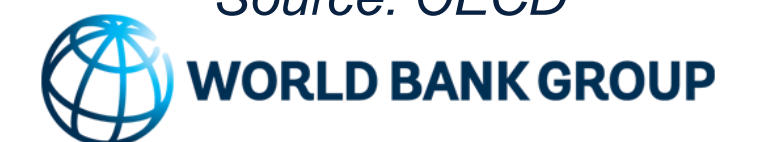
'Elite' schools accommodate a small proportion of students, but get more funding per student

Education policies and financing motivate teachers and school leaders to support top-performers



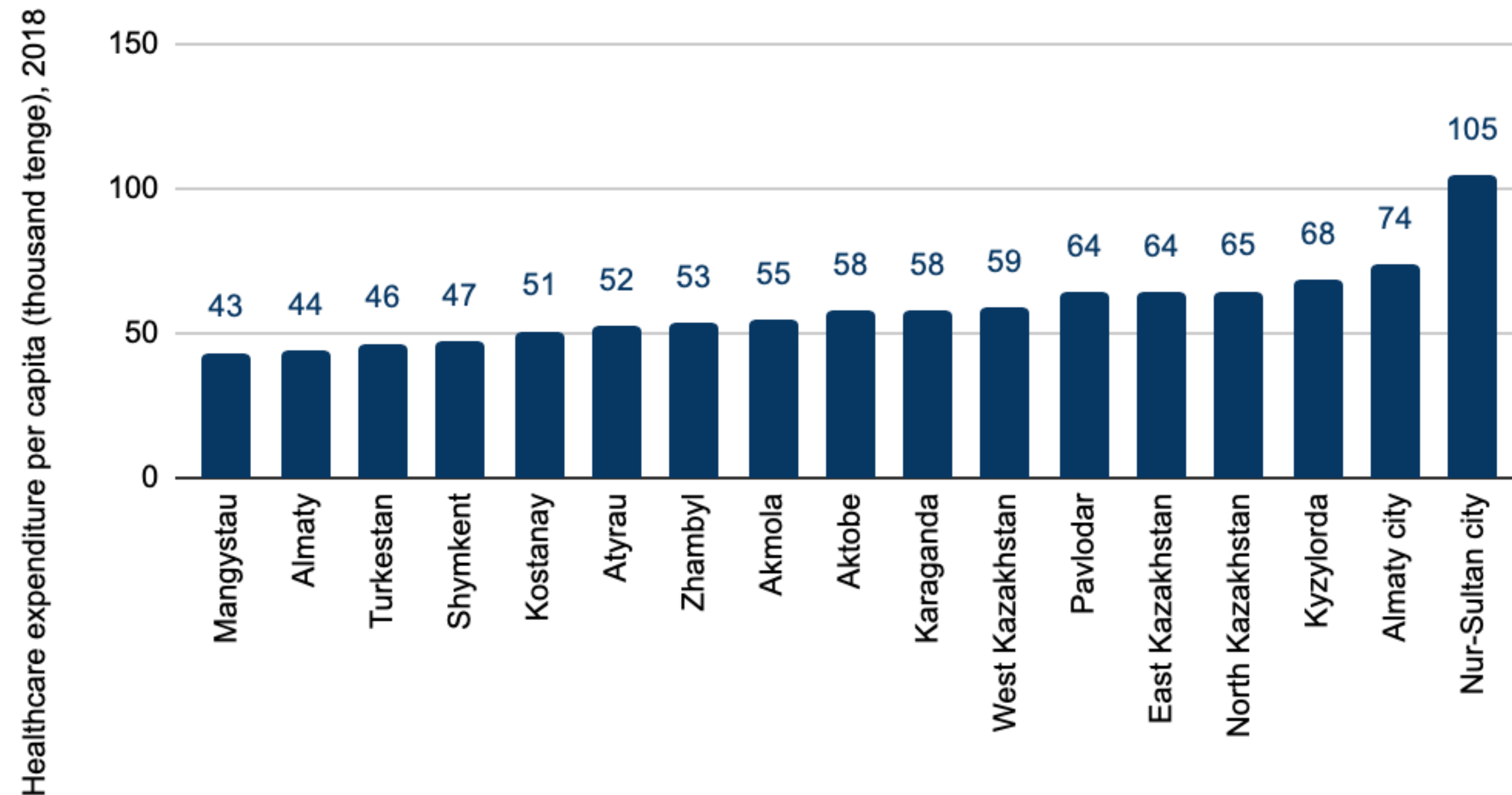
PISA = Programme for International Student Assessment

Source: OECD



Health Expenditures Differ Significantly Across Regions

Healthcare expenditure per capita, Kazakhstan, 2018
(thousand tenge)



The difference between Mangystau and Nur-Sultan City is over 2 times

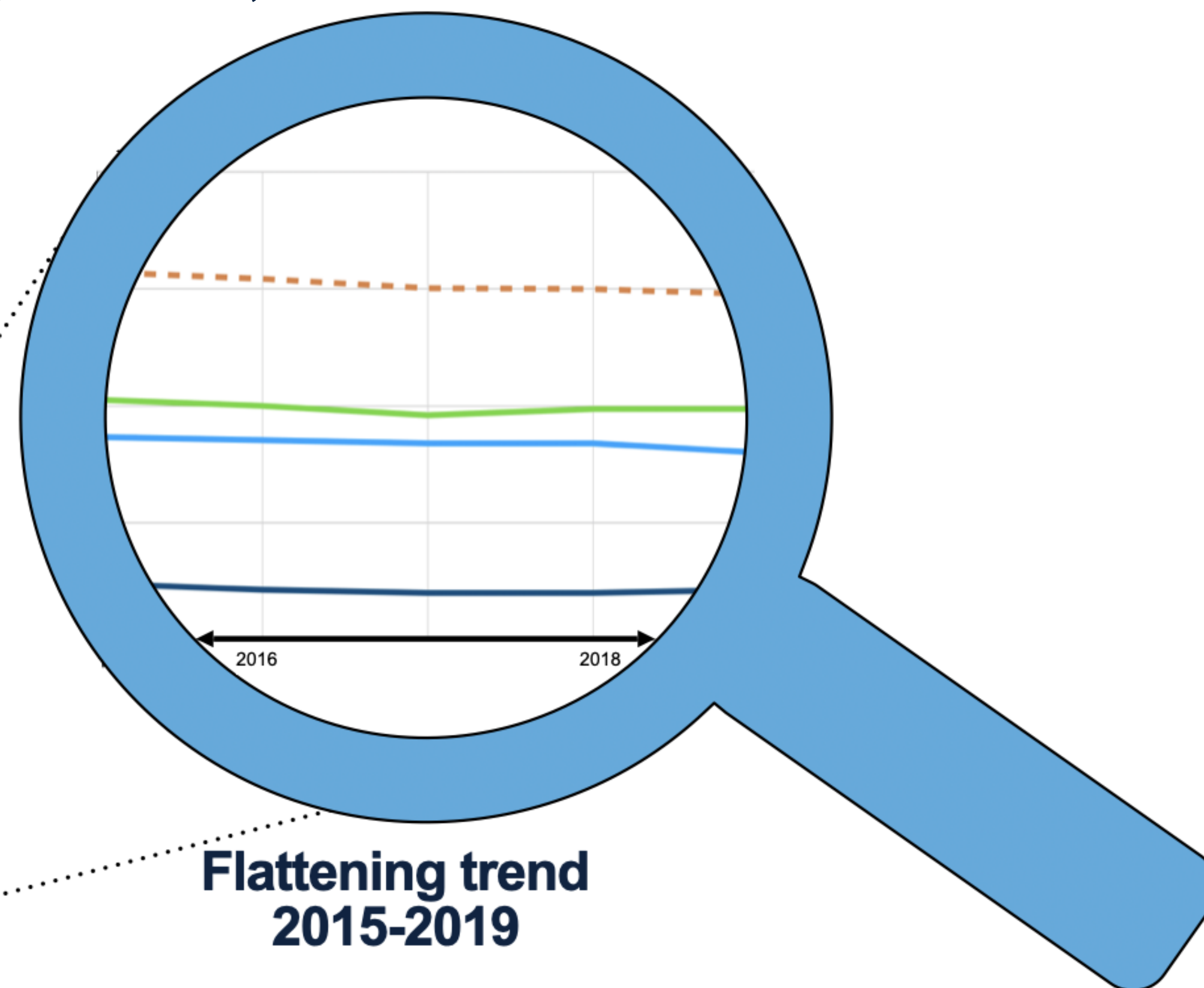
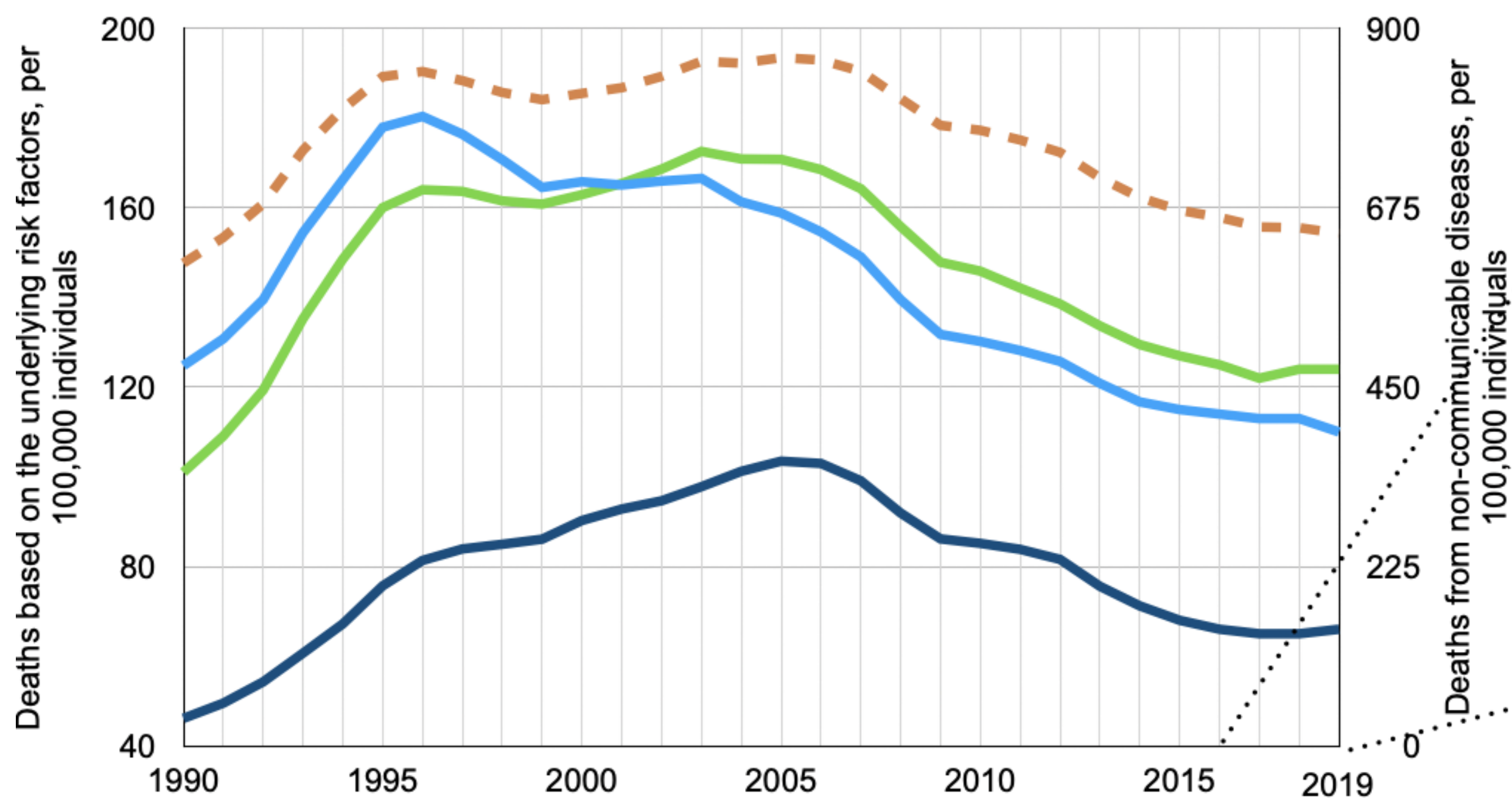
Source: MOH

Health Reforms Limited Since 2015

Deaths based on underlying risk factors or causes, per 100,000 individuals, Kazakhstan, 1990-2019

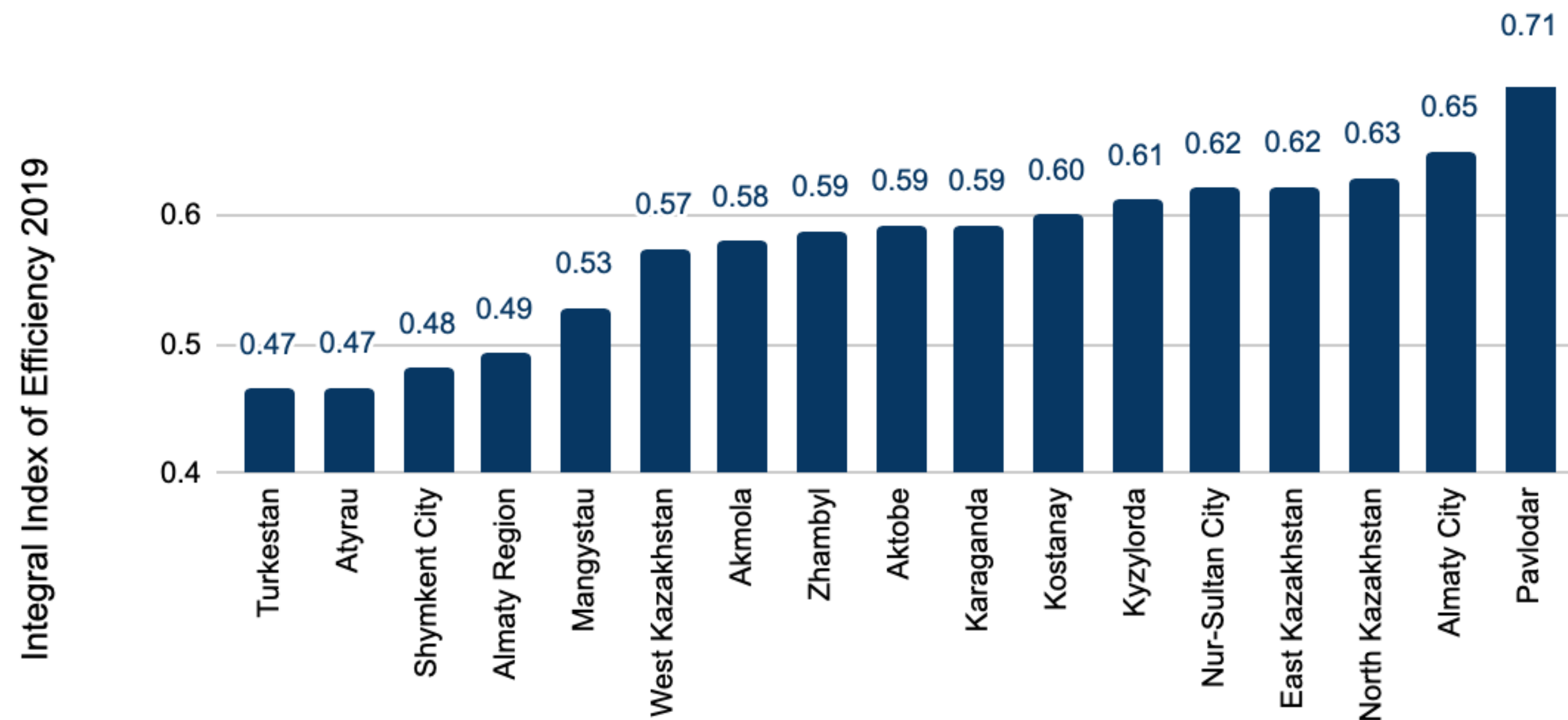
- Risk: Smoking
- Risk: Alcohol and drug use
- Risk: High body-mass index
- - - Cause: Non-communicable diseases

Trend 1990-2019



Source: Global Burden of Disease Study 2019 Results, Institute for Health Metrics and Evaluation

Regions Differ in Their Capacity to Translate Policy into Results

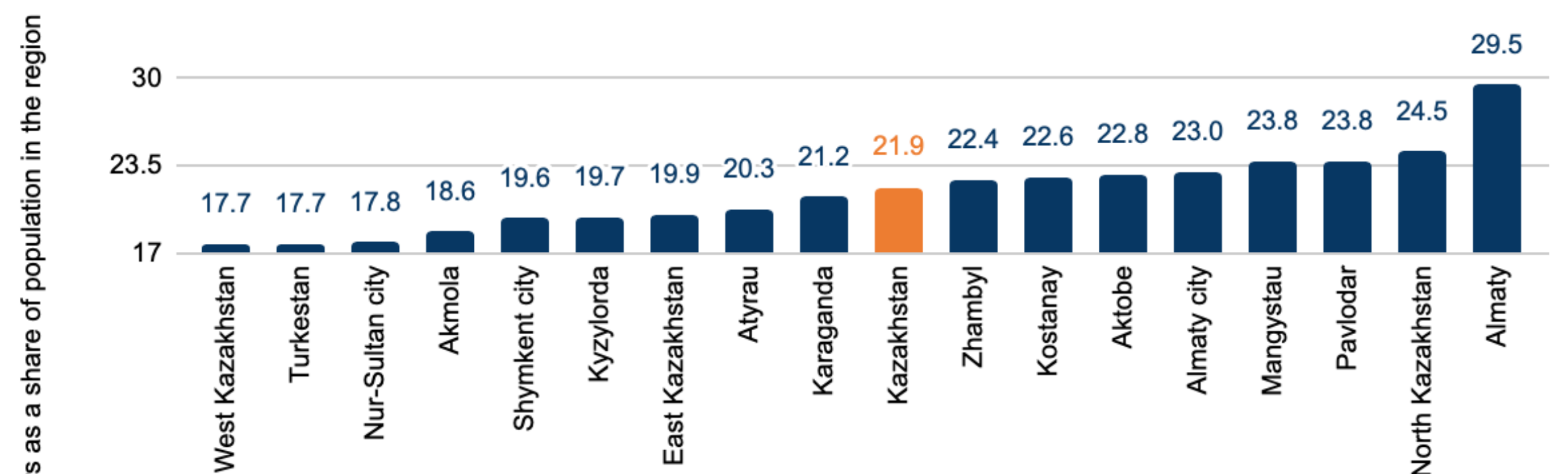


Source: National Report on the State and Development of the Education System of the Republic of Kazakhstan in 2019

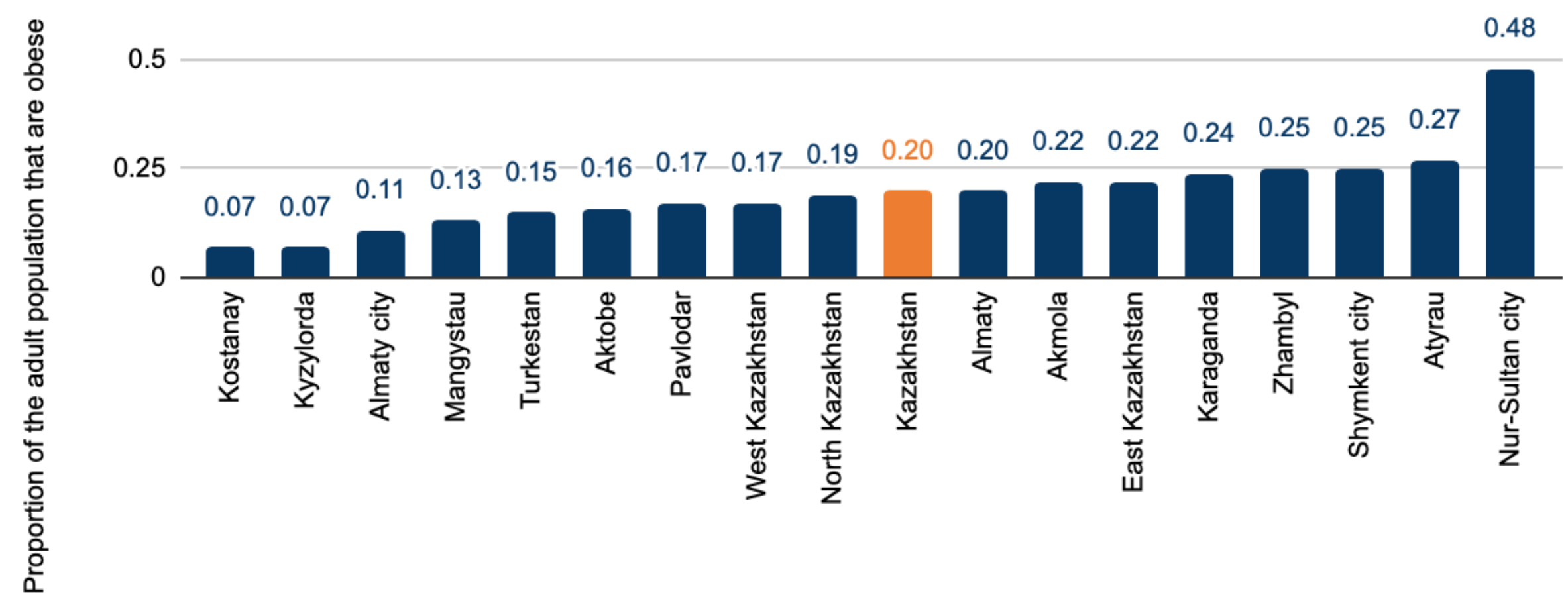
Covers all levels of education

Regional differences measured by the Integral Index of Efficiency are consistent with regional differences in HCI for education quality

Regions Differ in their Incidence of Smoking and Obesity



Source: Ministry of Healthcare, 2019

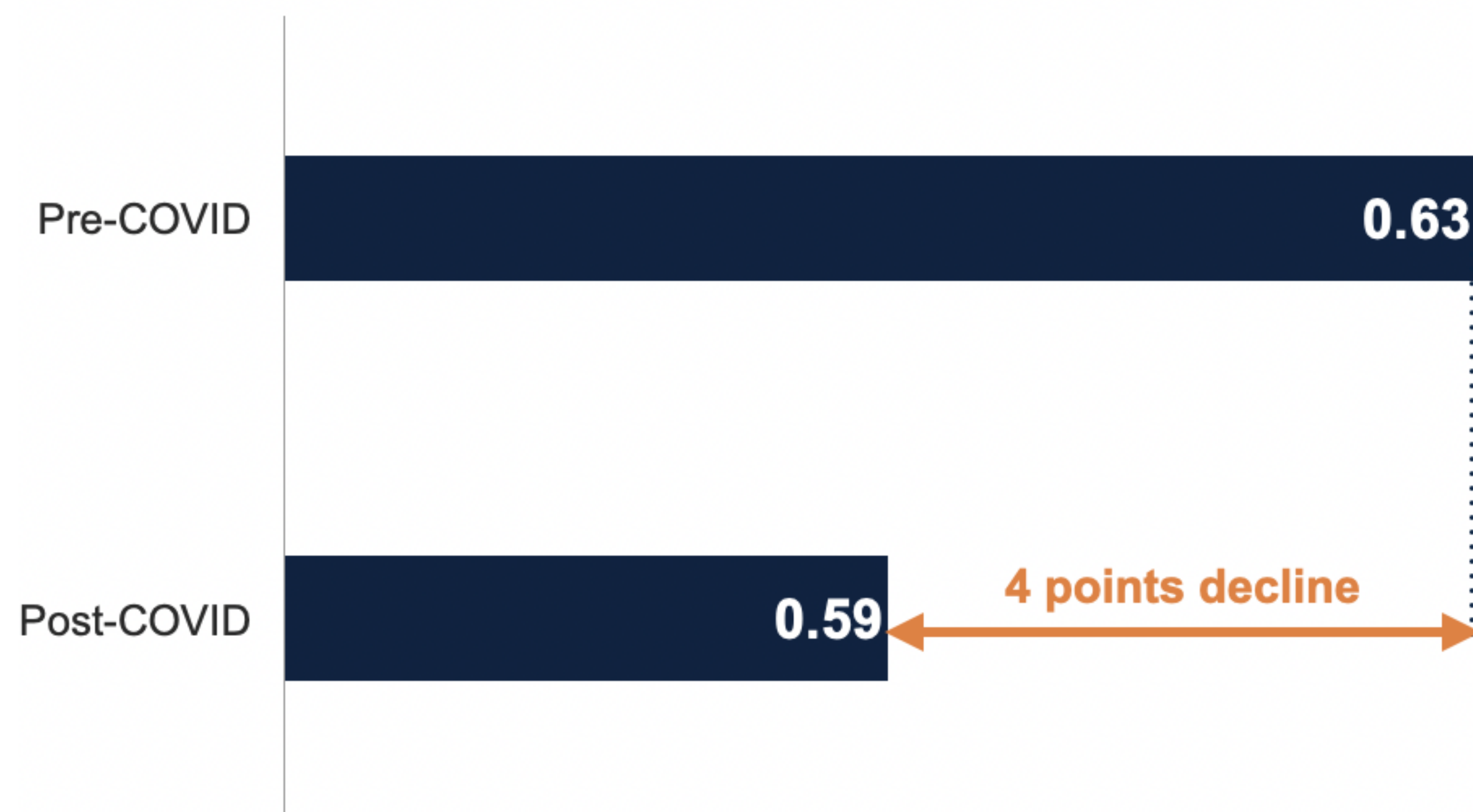


Source: National Statistics Bureau, 2020

Wide variations in smoking and obesity patterns across the country

COVID-19 poses a serious risk to Kazakhstan's Human Capital

Human Capital Index



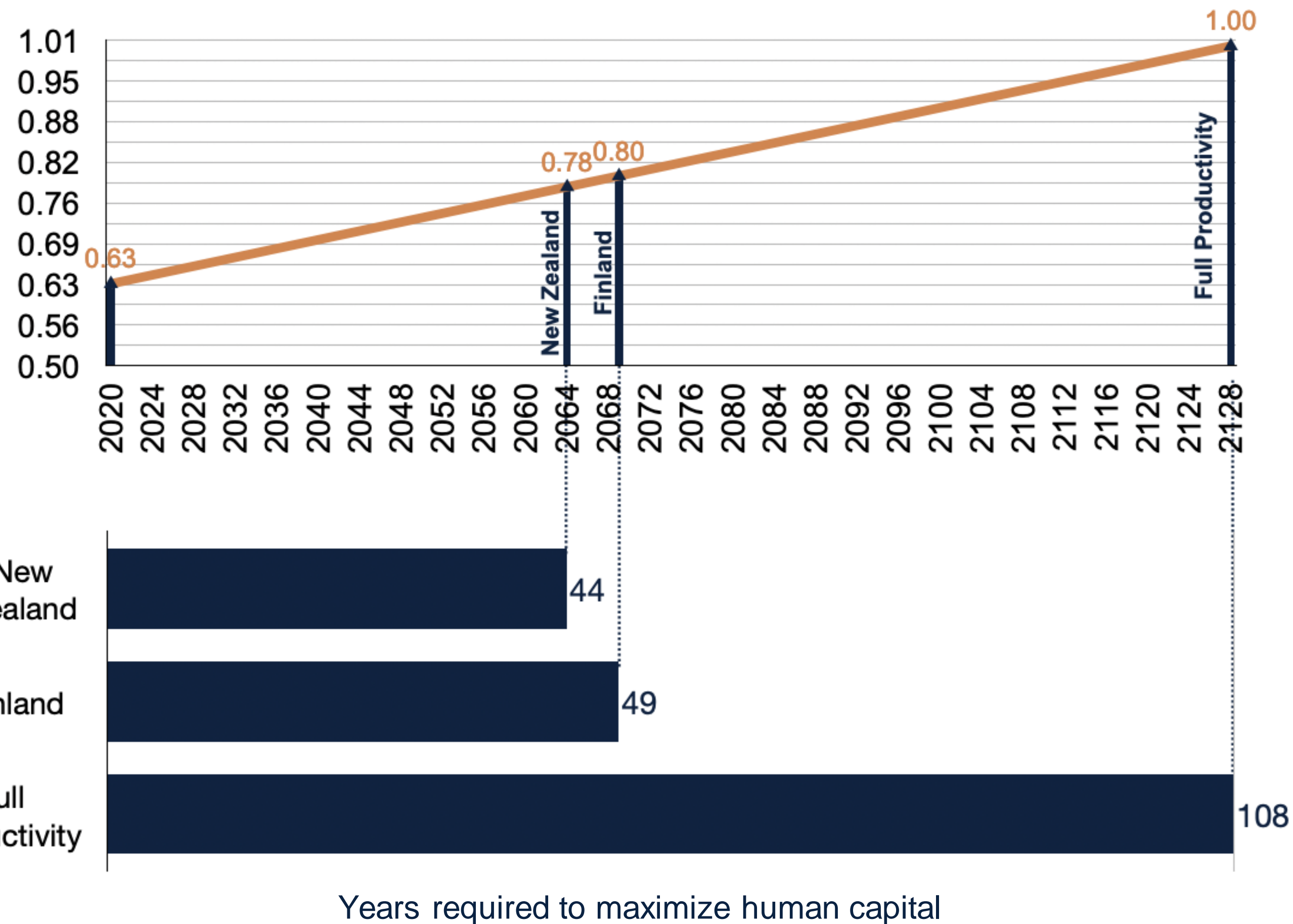
Source: World Bank

Covid will have a huge negative impact on HCI

Estimate is that it will reduce Kazakhstan's HCI by 4 points – thus **wiping out the HCI gains over the ten years from 2010-2020**

Conclusion & Way Forward

'Business as Usual' Won't Deliver Strategy 2050 Target



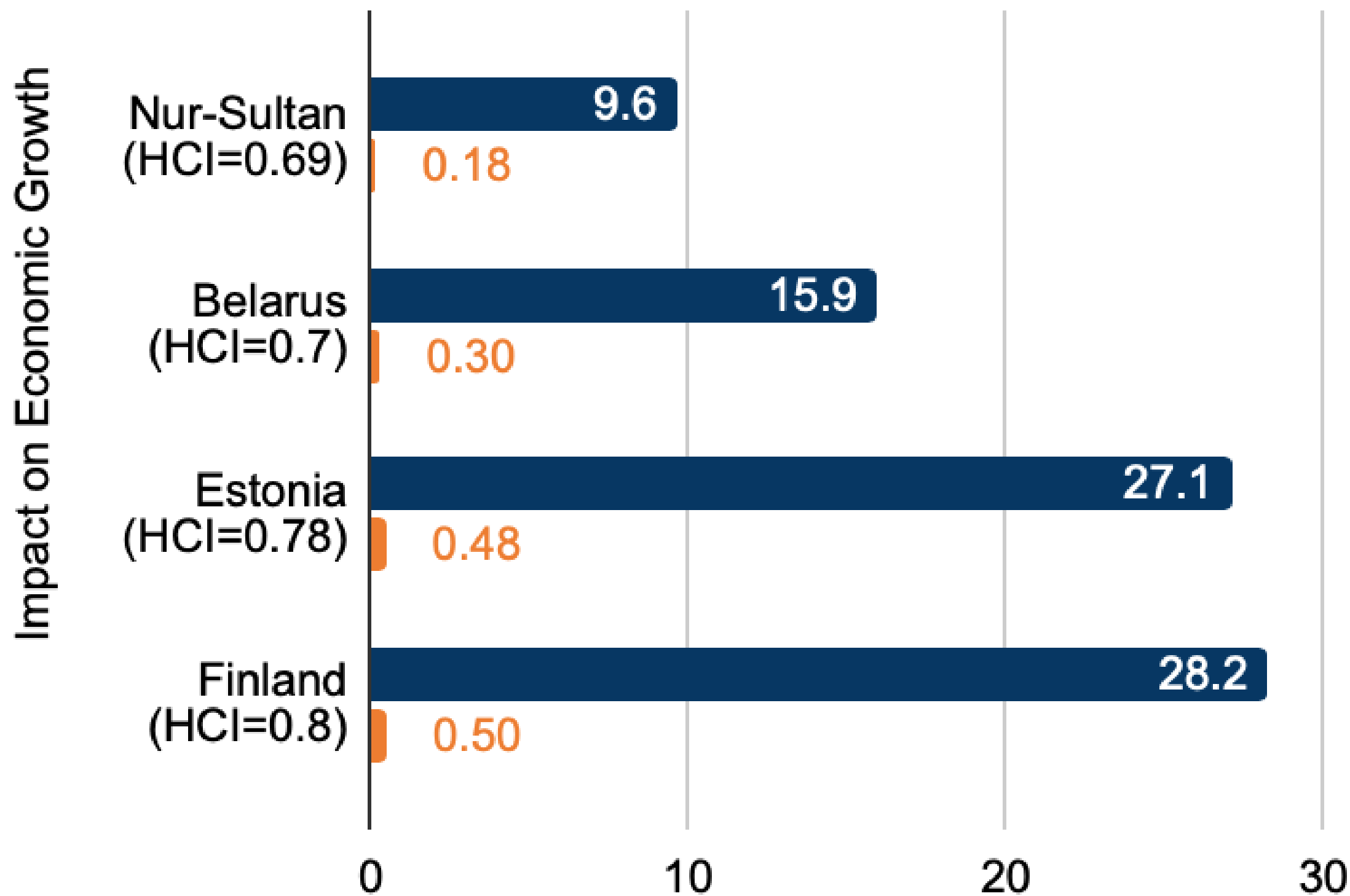
If Kazakhstan continues to increase HCI at same pace as 2010-2020, it will take:

- ▶ **44** years to reach the HCI score of the 30th ranked country for GDP per capita
- ▶ **108** years to maximize human capital

If improve HCI by 6 points every 10 years (instead of 4), then can reach HCI score of top-30 economy in 2045

Equitable Human Capital Is Critical for the Development of Kazakhstan

- Increase in Long Run GDP Per Capita Over 50 Years (%)
- Average Increment to Annual Growth Over 50 Years (%)



Source: World Bank

- ▶ Human capital is a strong determinant of long-term sustainable economic growth
- ▶ Inequality has a negative impact on economic growth, measures to lift human capital in lagging regions are necessary
- ▶ By increasing human capital to the level of

Nur-Sultan	Kazakhstan would increase GDP per capita over 50 years by	9.6%
Belarus		15.9%
Estonia		27.1%
Finland		28.2%

Crucial Time for Initiating Bold Reforms with a Long-Term Vision

Equitable human capital development at the center of economic reforms

Regional autonomy, incentives and accountability – policies, financing and implementation of human capital development plans



Education

- Covid-19 impact (learning loss and recovery)
- Increase financing
- Funding based on student and school needs – emphasis on lifting bottom up and incentivizing quality improvements (teacher remuneration and school-based financing)
- Modernization (curricula, teaching, and assessment)
- Greater curriculum flexibility and academic autonomy in higher education
- Strengthen quality assurance
- Higher Education access and quality
- Early Childhood Development



Health

- Rebalance focus of health delivery on primary health care – access, GPs/specialists, quality of care, modernization
- Address burden of disease amenable to health care interventions - treatment, management, and targeted prevention of chronic diseases, NCDs
- Implement further measures to reduce causes of NCDs – tobacco, alcohol, exercise, diet – including controls on availability, marketing and use; higher taxes; public awareness campaigns; and clinical interventions to address cardiovascular diseases and diabetes
- Rationalize hospital network – autonomy, incentives, accountability

Next Steps

- First area of focus will be **skills and productivity**:
 - ▶ Productivity is key driver of economic growth
 - ▶ Kazakhstan faces a significant challenge in reversing declining productivity and economic growth
 - ▶ Skills gaps and skills mismatches identified as key constraints to business operations in Kazakhstan (EBRD, World Bank)
- Prepare report on skills and productivity – challenges and detailed recommendations for reform
- Catalyst for national conversation on reform in the education and skills development sector



THANK YOU



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