



Costing of Health Care Services in Cambodia

Establishing a routine system



Objectives

- Decision-making by the Health Care Provider
 - Make-or-buy
 - Efficiencies
- Decision-making of the Government
 - Budgeting and resource allocation
 - Provider payment: NSSF and HEF as well as capitation
 - Design of basic health care package
 - Decentralisation Motivation and Business-Orientation
- Economic assessment



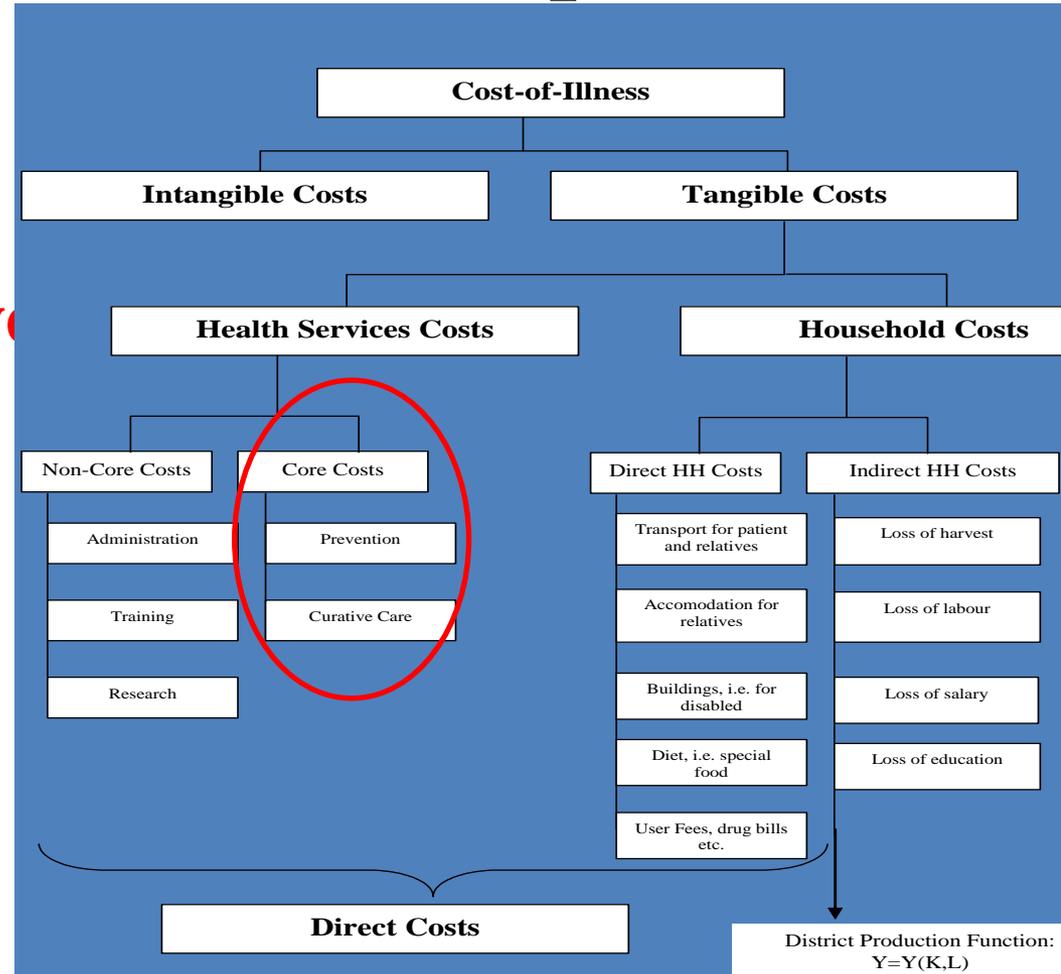
Methodology

- Step-down micro-costing



Perspective and Concept

- Societal Perspective
- Financer Perspective
- **Provider Perspective**
- Client Perspective





Degree of precision

- low level precision:
 - health center: cost per contact
 - hospital: cost per outpatient visit, cost per patient, cost per bedday
- intermediate level precision:
 - health center: cost per OPD visit, cost per delivery, cost per preventive contact, cost per TB-treatment
 - hospital: cost per OPD visit, cost per patient and cost per bedday differentiated by departments (e.g. surgical department, general ward, pediatrics...)
- Higher level precision:
 - hospital: cost per OPD visit, cost per patient and cost per bedday differentiated by departments and groups of procedures (e.g. minor and major operations)
- Sophisticated level of precision:
 - hospital: cost per OPD visit, cost per patient and cost per bedday differentiated by diagnosis (e.g. appendectomy)



Step-Down Methodology

Cost categories:

- Staff cost: contracted and hired
- Drugs and materials: real cost, not normative
- Capital costs: equipment/building/vehicle inventory
- Other expenditure: as given in health financing reports and hospital accounting reports



Step-Down Methodology

Allocating costs to cost centers:

- Allocating staff costs
- Allocating drugs and medical materials
- Allocating laboratory and radiology costs
- Allocating capital costs
- Other costs



Experiences and Preliminary Results

- Step 1: Development of Manuals and Excel-Tools ✓
- Step 2: Sampling ✓

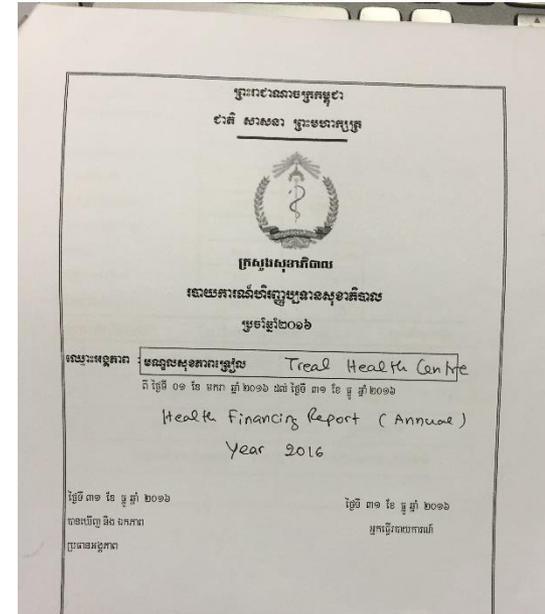
Province	OD	Names of health facilities
Kampong Thom	Kampong Thom	Kampong Thom Provincial Referral Hospital
	Kampong Thom	Prey Pras HC, Sala Visai HC, Sambour HC, Sandan HC
	Baray Santuk	Baray Santuk Referral Hospital Taing Krasaing HC, Treal HC, Chong Dong HC, Tang Kork HC
	Stoung	Cham Na Ler HC, Trea HC
Kampot	Kampot	Kampot Provincial Referral Hospital
	Angkor Chey	Angkor Chey Referral Hospital Dambouk Khpous HC, Trapeang Sala HC, Praphum HC, Tani HC
	Kampong Trach	Kampong Trach HC, Tuk Meas HC, Damnak Kantuot HC, Russei Srok Khang Lek
	Chhouk	Dang Toung HC, Trapeang Reang HC
Kep	Kep	Kep Referral Hospital



Steps

Step 3: Data collection ✓

- Preparatory Stakeholder Meetings
- National Data Bases
- Health Facility, OD and Province Reports
- On-Site visits



ចំណូលពីការប្រើប្រាស់សេវាប្រចាំឆ្នាំ *Op Income from services* (ឯកតារៀល)

ល.រ	ករណី	ពិនិត្យជំងឺក្រៅ	ជំងឺសំរាកពេទ្យ	វិនិយោគ	សំរាល	សេវាអមគ្រឹម្តិក	សេវាបញ្ជូន	ផ្សេងៗ	សរុប
១	បង់ថ្លៃពេទ្យ Direct	2,223,000 ✓	0	0	4,800,000 ✓	2,075,000 ✓	0	0	9,098,000
២	លើកលែង	2,824,000 ✓	0	0	3,200,000 ✓	1,204,000 ✓	0	0	7,228,000
៣	បញ្ជូនបង់ថ្លៃ	0	0	0	0	0	0	0	0
៤	បញ្ជូនប៊ិចបង់ថ្លៃ	0	0	0	0	0	0	0	0
៥	មូលនិធិសមធម៌	2,763,400 ✓	0	0	3,840,000 ✓	594,200 ✓	0	0	7,197,600
៦	បញ្ជីសុខភាព Voucher	0	0	0	14,000	117,000	0	0	131,000
៧	ធានារ៉ាប់រងសុខភាព	25,000 ✓	0	0	420,000 ✓	28,800 ✓	0	0	473,800
៨	បសស	0	0	0	0	0	0	0	0
៩	ផ្សេងៗ	0	0	0	0	0	0	0	0
	សរុប	7,835,400	0	0	12,274,000	4,019,000	0	0	24,128,400

ចំណូលពេក្រៅសេវា *Income non-services*

ល.រ	ប្រភេទចំណូល	រដ្ឋាភិបាល	ជំនួយNGOs	ផ្សេងៗ	សរុបរួម
១	ប្រាក់កម្ម Salary	77,161,200 ✓	0	0	77,161,200
២	ប្រាក់បញ្ញើប្រចាំការ OT	10,695,000 ✓	0	0	10,695,000
៣	អ្នកបរិច្ចាគ Mcd	18,480,000 ✓	0	0	18,480,000
៤	សៀវភៅអាហារ Fee	0	0	0	0
៥	គ្រឹះស្ថាន Drugs	83,028,151 ✓	0	0	83,028,151
៦	ផ្សេងៗទៀត Other	12,000,000	0	0	12,000,000
	សរុប	201,364,351	0	0	201,364,351

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ល.រ	ករណី	0	0	0	0	0	0
60071	បំពង់ប្រាសនិងអ្នកកុំសែន	0	0	0	0	0	0
60078	សំភារៈបើកទ្រាំត្រូវស្រុកពេទ្យផ្សេងៗ	0	0	0	0	0	0
6008	សំភារៈផ្គត់ផ្គង់ផ្សេងៗ	0	0	0	0	0	0
6008	ឱសថទទួលបានពីក្រសួង	83,028,151 ✓	83,028,151	0	0	0	1,518,600
6009	ឱសថដែលទិញដោយខ្លួនឯង	1,518,600	0	0	0	0	1,026,500
61	សេវាកម្ម	1,026,500	0	0	0	0	679,500
6102	ការជួលមធ្យោបាយដឹកជញ្ជូន Travel Expenses	679,500	0	0	0	0	347,000
6105	ការថែទាំ និង ជួសជុល	347,000	0	0	0	0	0
61051	ការថែទាំឱ្យ រ៉ឺម៉ក និង យានយន្ត	0	0	0	0	0	0
61052	ការថែទាំនិងជួសជុលអគារផ្សេងៗ និង ប្រតិបត្តិការ Maintenance	57,000	0	0	0	0	57,000
61054	ការថែទាំបណ្តាញផ្សេងៗ Network	270,000	0	0	0	0	270,000
61056	ការថែទាំនិងជួសជុលមធ្យោបាយដឹកជញ្ជូន Travel expenses	20,000	0	0	0	0	20,000
61057	ការថែទាំនិងជួសជុលសំភារៈឧបករណ៍បច្ចេកទេស Maintenance	0	0	0	0	0	0
6110	ទំនាក់ទំនងជាមួយអង្គការសហប្រតិបត្តិការ	0	0	0	0	0	0
61103	ប្រតិបត្តិការ និង សន្និដ្ឋាន	0	0	0	0	0	0
61104	ចំណាយប្រតិបត្តិការ	0	0	0	0	0	0
61107	ការបោសសម្អាត និង ជុំវិញផ្សារព័ត៌មានសាធារណៈ	12,000,000	12,000,000	0	0	0	0
62	អនុប្រព័ន្ធនិស្សន្ទ	12,000,000	12,000,000	0	0	0	0
6202	ជំនួយសម្រាប់ប្រជាជន	0	0	0	0	0	0
62021	ជំនួយសម្រាប់ប្រជាជនសំរាប់ការបង្កើនចំណេះដឹង	0	0	0	0	0	0
62022	ឱសថ	0	0	0	0	0	0
62023	អាហារនិងសំភារៈ (សៀវភៅបង្រៀន)	12,000,000	12,000,000	0	0	0	0
62028	ជំនួយសម្រាប់ផ្សេងៗ	115,279,500	106,336,200	0	0	0	8,943,300
64	បុគ្គលិក	91,372,200	91,372,200	0	0	0	0
6402	លាភការិយាល័យប្រាក់បំណាច់បុគ្គលិកក្រៅប្រទេស	0	0	0	0	0	0

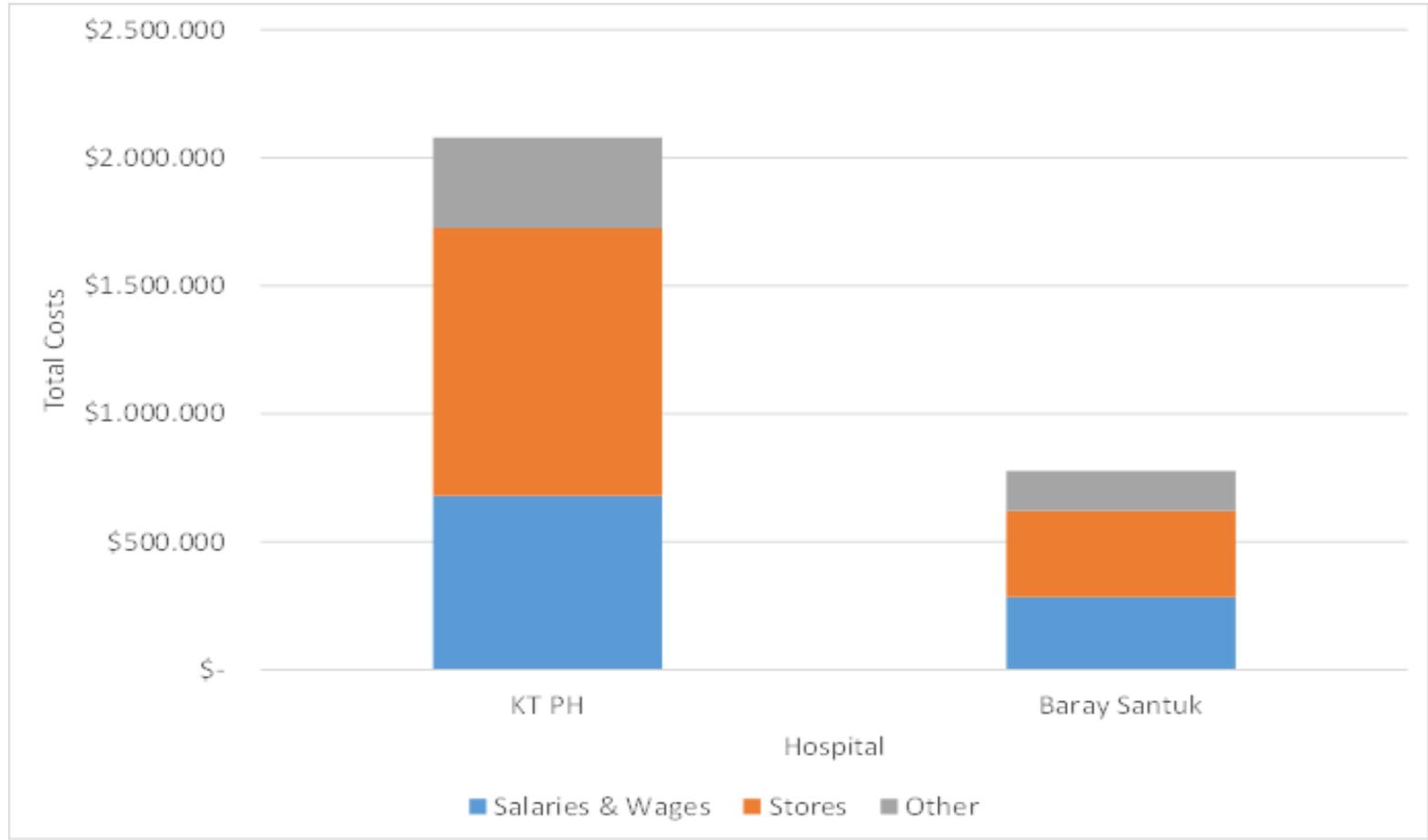


Steps

- Step 4: Data Input ✓
 - Cleaning
 - Data Input
- Step 5: Cleaning
 - Kampong Thom: ✓
- Step 6: Analysis
 - Kampong Thom: ✓



Results



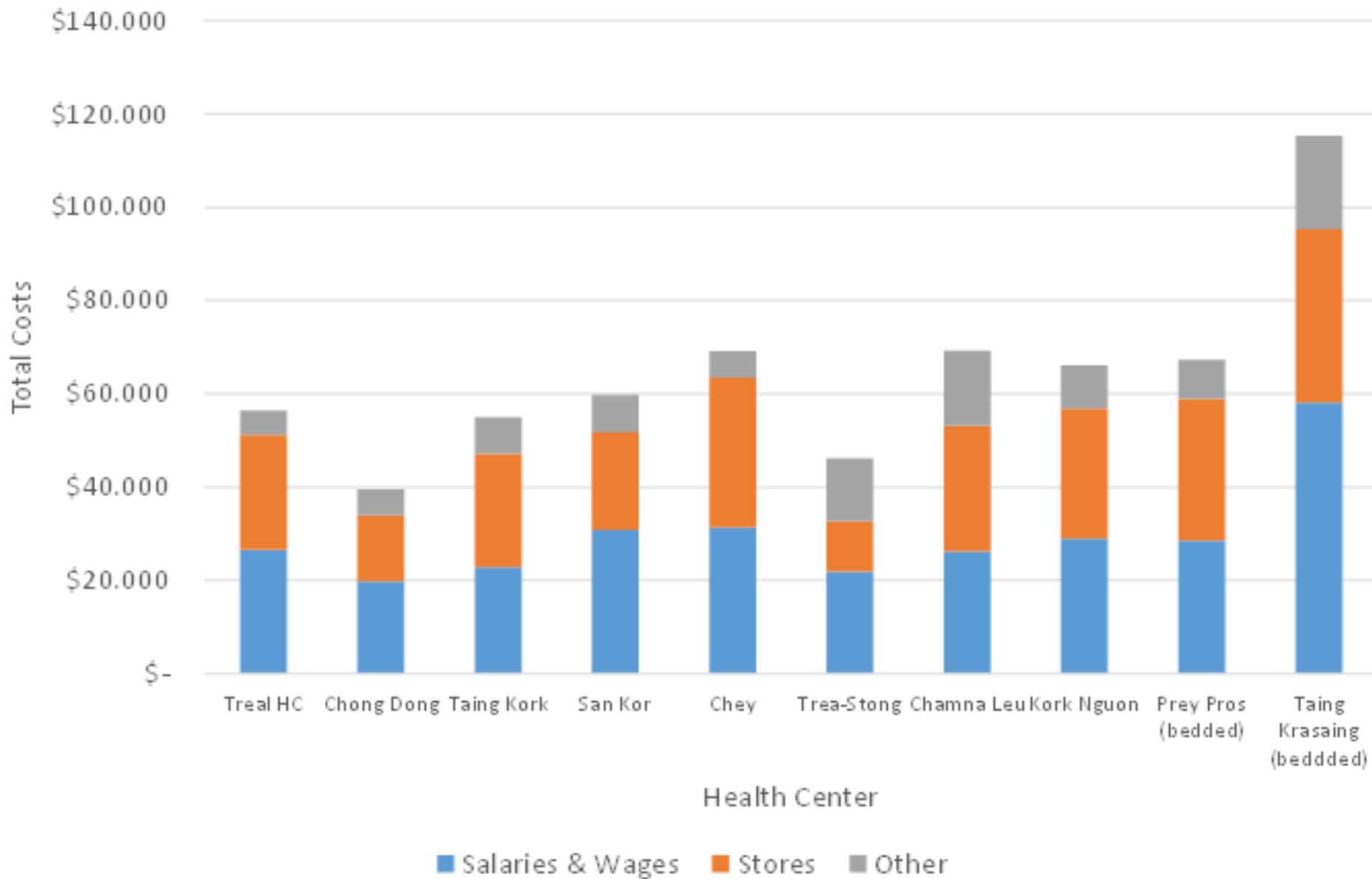


កិច្ចសហប្រតិបត្តិការ
អាស៊ីម៉ង់

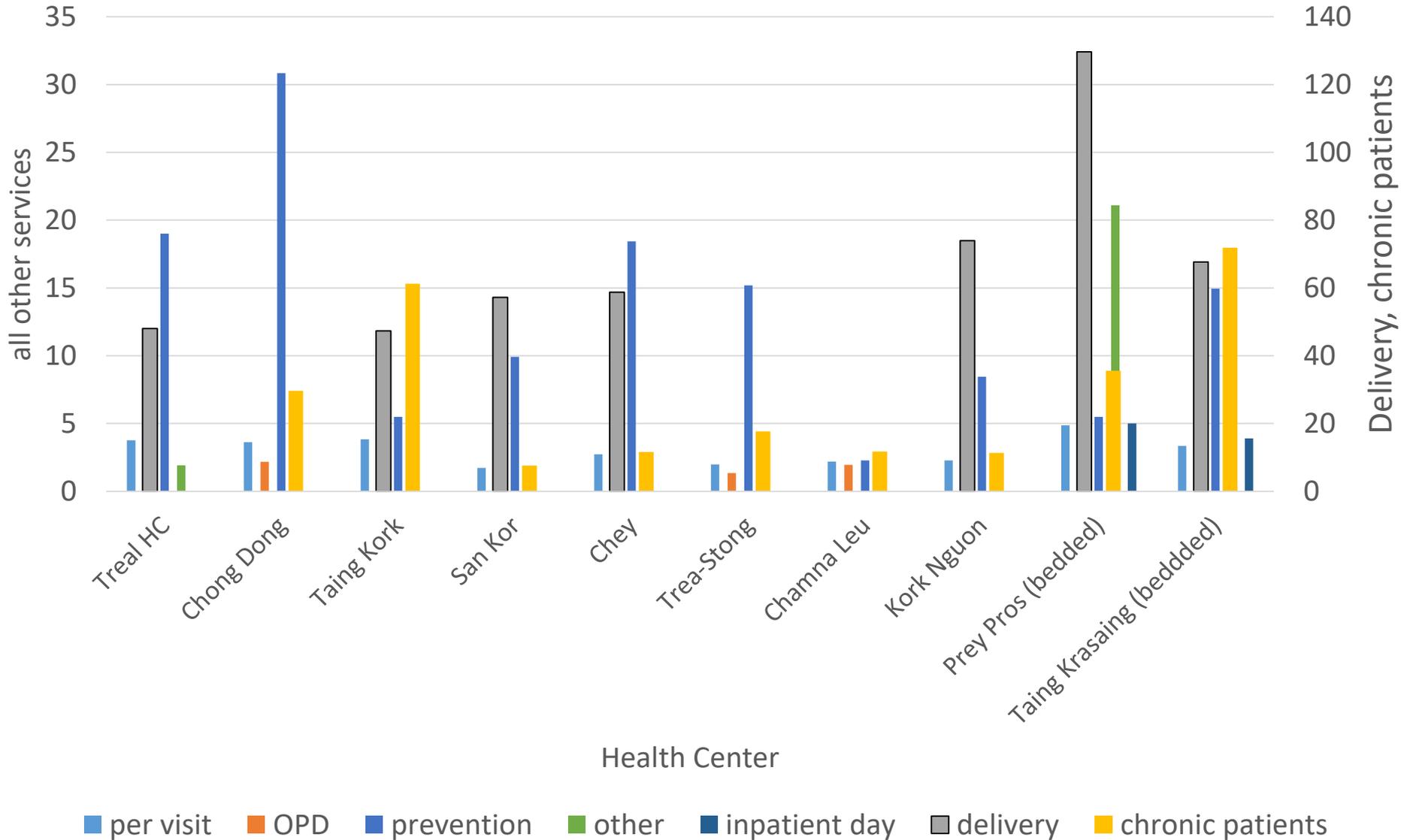


អនុវត្តដោយ:

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH



Cost per service unit [US\$]





Kampon Thom Prov. Hospital

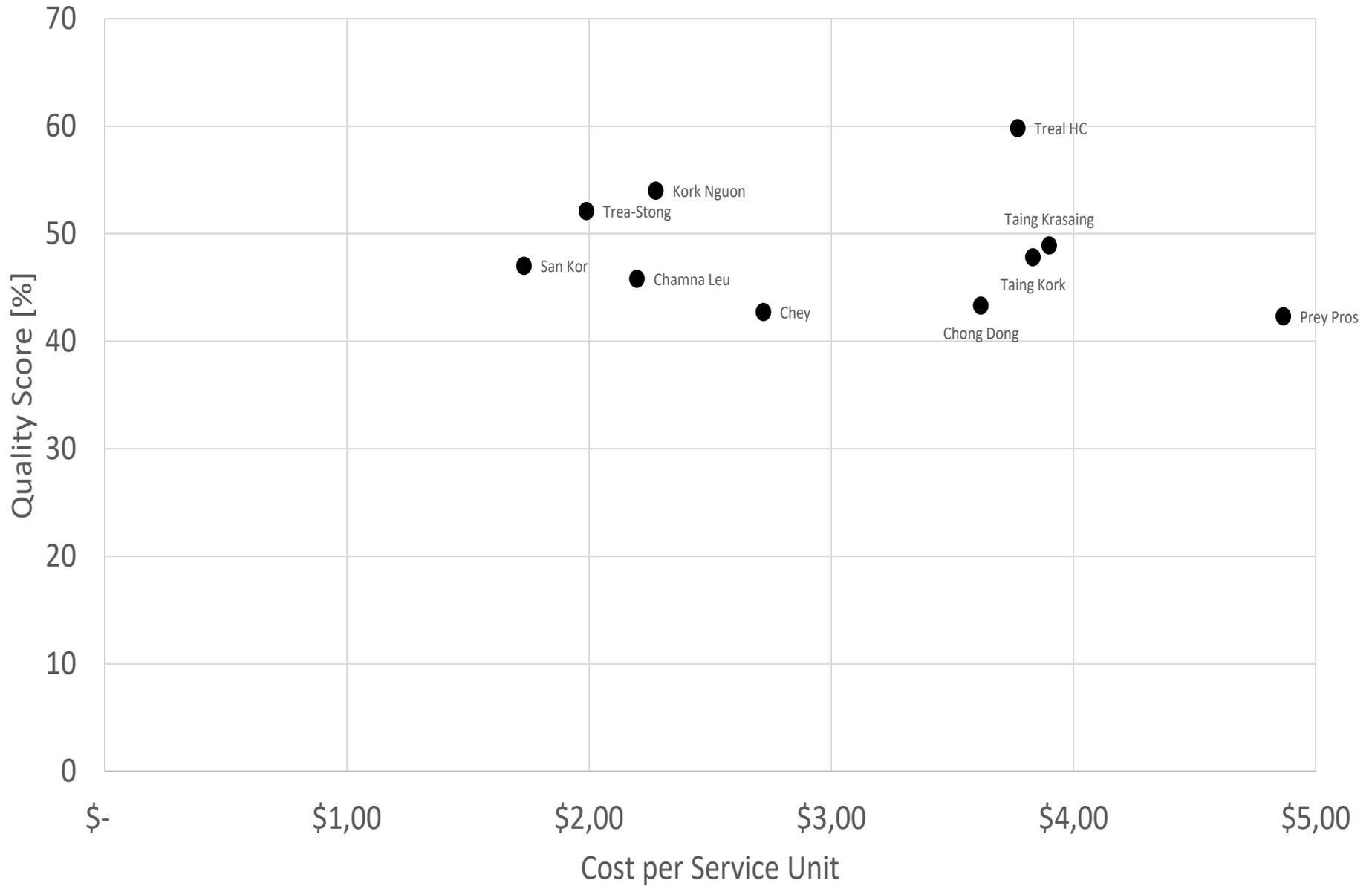
\$49.76	per Outpatient department visit / patient
\$178.88	per Inpatient department patient
\$44.97	per Inpatient day
\$39.79	Surgery - per inpatient day
\$32.21	General Medicine - per inpatient day
\$47.03	Paediatrics - per inpatient day
\$60.89	Maternity - per inpatient day
\$46.36	TB - per inpatient day
\$51.54	Other Inpatient - per inpatient day
1.11	cost-equivalent: 1 OPD-visit = x IP days



Results: Treal Health Center

\$3.77	per visit / patient
\$3.11	per OPD services patient contact
\$40.74	per delivery
\$19.00	per prevention patient contact
\$2.29	per other services patient contact

Quality



● Quality



Lessons learned

- “proof of concept”
 - It is feasible to do costing with the methodology proposed
 - Results are meaningful
- Workload
 - Higher than expected
 - Methodology must be simplified to broaden sample
- Quality of data
 - Data collection is cumbersome
 - Quality of data requires strong effort



Lessons learned

- Methodology
 - Simplify if possible
- Routine system
 - Will take much more time to develop than expected
 - Accounting and documentation must be strengthened
 - Institutional capacity must be strengthened



Suggestions

1. Strengthen administrative standards in health facilities

- Facilities:
 - Financial accounting
 - Cost accounting
 - Medical statistics and documentation
- National Level: clear national policy
 - National training policy
 - Accounting standards



Suggestions

2. Provision of Costing Data

- Adjust methodology
- Provide methodology to NIPH
- Support NIPH in conducting a series of costing studies



Suggestions

3. Centre of Excellence of Health Economics

Elements

- Costing, Pricing
- Health Financing
- Quality, Quality of Life
- Health economic evaluation