Preliminary summary – the triangle and the building blocks (functions)

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# Outline of the course

## 1st Semester – Week 1

<table>
<thead>
<tr>
<th>1W1</th>
<th>Monday (23.09.)</th>
<th>Tuesday (24.09.)</th>
<th>Wednesday (25.09.)</th>
<th>Thursday (26.09.)</th>
<th>Friday (27.09.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00 - 10:00</td>
<td>Public Holiday</td>
<td>Frameworks 2/Financing (triangle)</td>
<td>Service delivery</td>
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</tr>
<tr>
<td>10:30 - 12:30</td>
<td>Arrival of non-KNUST student participants</td>
<td>Financing</td>
<td>Medical products and technologies</td>
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</tr>
<tr>
<td>13:00 - 15:00</td>
<td>Campus tour for exchange students/short course participants</td>
<td>Health workforce</td>
<td>Group work (triangle Ghana health system)</td>
<td>Leadership, governance, stewardship</td>
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</tr>
<tr>
<td>15:30 - 17:30</td>
<td></td>
<td>Information</td>
<td>Optional supervised group work</td>
<td>Preliminary summary</td>
<td></td>
</tr>
</tbody>
</table>

## 1st Semester – Week 2

<table>
<thead>
<tr>
<th>1W2</th>
<th>Monday (30.09.)</th>
<th>Tuesday (01.10.)</th>
<th>Wednesday (02.10.)</th>
<th>Thursday (03.10.)</th>
<th>Friday (04.10.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00 - 10:00</td>
<td></td>
<td>Improved health</td>
<td>Efficiency and responsiveness</td>
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<tr>
<td>10:30 - 12:30</td>
<td>Access and coverage</td>
<td>Financial protection and equity in financing</td>
<td>Health system performance assessment (summary)</td>
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<tr>
<td>13:00 - 15:00</td>
<td>Group work (access, coverage – Ghana health system in cube)</td>
<td>Group work (health system goals, ranking, weighting)</td>
<td>Revision</td>
<td>Departure of non-KNUST student participants</td>
<td></td>
</tr>
<tr>
<td>15:30 - 17:30</td>
<td>Group work presentation (graded)</td>
<td>Quality and safety</td>
<td>Self-study for mid-Sem Exam</td>
<td>Mid-term exam (30 min) + final questions</td>
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</tbody>
</table>

**NB:** Lecturer (by colour) = PD Dr. Wilm Quentin Dr. Daniel Opoku W. Quentin + D. Opoku
Guiding framework for the module

THE WHO HEALTH SYSTEM FRAMEWORK & other frameworks: **24/25 Sept**

**SYSTEM BUILDING BLOCKS**

- SERVICE DELIVERY  
  - 26 Sept
- HEALTH WORKFORCE  
  - 25 Sept
- INFORMATION  
  - 25 Sept
- MEDICAL PRODUCTS, VACCINES & TECHNOLOGIES  
  - 26 Sept
- FINANCING  
  - 25 Sept
- LEADERSHIP / GOVERNANCE  
  - 27 Sept

**OVERALL GOALS / OUTCOMES**

- 01 Oct
  - ACCESS
  - QUALITY
  - SAFETY

- 02 Oct
  - IMPROVED HEALTH (LEVEL AND EQUITY)
  - IMPROVED EFFICIENCY

- 03 Oct
  - RESPONSIVENESS
  - SOCIAL AND FINANCIAL RISK PROTECTION

**Summary:** **27 Sept**

**Performance assessment:** **03 Oct**
The starting point: World Health Report 2000

This report sets out to analyse the role of health systems and suggests how to make them more efficient and, most importantly, more accessible and responsive ...
Summary of building blocks

Functions

Financing I: Raising resources/funding

Financing II: Resource pooling & allocation
Collector of resources → Third-party Payer

Financing III: Purchasing/contracting/paying providers

Steward/Regulator


Access to services

Provision of services

Providers

Functions

Financing II: Resource pooling & allocation
Collector of resources → Third-party Payer

Financing I: Raising resources/funding

Financing III: Purchasing/contracting/paying providers

Steward/Regulator
Regulation

Population Coverage:
Who? What? How much?

Access to services

Provision of services

Providers
Why is governance important?

- Many good policy ideas fail because of problems during implementation.
- Examples:
  - Privatization of state-owned hospitals enables corrupt appropriation of assets if the agency making the sale lacks integrity and transparency.
  - Pharmaceutical policies may lead to expensive or dangerous drugs if opacity, lack of regulatory agency accountability, and poor information allow conflict of interests to influence decisions.
- The best ideas, with adequate funding and political support, can fail to produce the right effects due to problems of weak governance.
How to improve governance: TAPIC three step approach

1. Is it a governance problem?
   – As against lack of finances, fundamentally bad idea, policy not adopted

2. What kind of governance problem is it?
   – There can be too little, too much, or the wrong kind of governance mechanisms.

3. What might be solutions (e.g. more relevant data requirements to improve transparency, improve human resource capacity etc.)
Dimensions of governance

• Transparency
  – Makes decisions & their grounds clear

• Accountability
  – Clear reporting to principals with sanctions

• Participation
  – Affected parties engaged in decision-making

• Integrity
  – Weberian virtues: clear jobs, hiring, tenure etc.

• Policy Capacity
  – Skills for policy analysis at center
System typology

Financing I: Raising resources/funding

Financing II: Resource pooling & allocation

Collector of resources

Third-party Payer

Income-dependent contributions & sickness funds = Social Health Insurance system

Taxes & governments/health authorities = tax-funded system (NHS)

Risk-related premia & private insurers = Voluntary Health Insurance system

To take home: despite the seemingly many options, there are just four main ways of funding health care:

- Social insurance payments = contributions based on income or community-rated premiums (everybody pays the same)
- Tax payments
- Voluntary (private) insurance payments = premiums (usually risk-related)
- Out-of-pocket payments by users
Richer countries spend more from public sources ... but is more public “better”? → will be addressed in the financing course.
Providers: often separate for different segments

Population

Government

Poor

Formal sector

Sickness funds

+CBHI

Private insurance

Rich

Fragmented system

Population
Expenditure is highly skewed I

Ontario, Canada (2008)

Population

Share of Health Spending

10%

79%

1% 5% 10% 50% 66% 79% 99%

Source: BMC Health Services Research 2014
Pooling and (re-)allocation is important

Re-allocation should be based on risk (not utilization)

Large pools are better at spreading the risk

Resource pooling & allocation

Collector of resources → Third-party Payer

Fair financing: Contributions according to ability to pay

Steward/Regulator

Purchasing/payment according to need (and quality)

Population

Providers

Particularly important in case of competing purchasers → avoid risk-selection

Summary of building blocks 27 September 2019
Different sets of (intertwined) reforms

Third-party payers

→ split from providers & regulator

Command-and-control/laissez-faire

→ Regulation

Relationship:
- integrated → contracts
- none → integrated → contracts
- contracts more sophisticated (volume, price, quality)

Providers

Institutions: (i) public → autonomous,
(ii) diversification (incl. private sector)

Settings: “simple” → community;
“specialized” → centralization

Work-force: composition & skill-mix

27 September 2019
Third-party payers → *split from providers & regulator*
New NHS-type systems in Europe

Central Regional government

Central government (MoF)

Increased choice

Limited

Universal coverage

General (or earmarked) taxation

MOH: Regulation, supervision and enforcement

Purchaser –

Provider split

Providers

Public (autonomous and private) providers

activity-based funding

25 September 2019

Financing 2
2 Command-and-control/laissez-faire → Regulation

- Often an initially unplanned side product of provider and/or purchaser reforms
- Requires a new mindset in MoH – and new skills
- Chance to develop system strategically (driven by objectives), and not ad hoc
Providers

Institutions: (i) public → autonomous, (ii) diversification (incl. private sector)

Settings: “simple” → community; “specialized” → centralization

Work-force: composition & skill-mix
Why?

• Efficiency
• Quality
• Choice for patients

### What is public, what is private?

<table>
<thead>
<tr>
<th>Provision</th>
<th>“public”</th>
<th>“private”</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Funding</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“public”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“private”</td>
<td></td>
<td></td>
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</tbody>
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<table>
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<tr>
<th>Provision</th>
<th>“public”</th>
<th>“private”</th>
</tr>
</thead>
<tbody>
<tr>
<td>public</td>
<td>tax</td>
<td>private insurance, out-of-pocket</td>
</tr>
<tr>
<td>not-for-profit</td>
<td>Statutory Health Insurance</td>
<td></td>
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</tbody>
</table>

Funding
Care provision reform trends (simplified)

Summary of building blocks
Density of physicians (per 1000 population, 2014)

- Liberia: 0.014
- Sierra Leone: 0.024
- Guinea: 0.097
- Russia: 3.3
- Germany: 4.1
- Norway: 4.4
- Russia: 3.3
- China: 1.5
- India: 0.7
- USA: 2.6
- Canada: 2.5
- Brazil: 1.8
- Argentina: 3.8
- Libya: 2.1
- Ghana: 0.11
- South Africa: 0.8
- Australia: 3.4

Source: http://apps.who.int/gho/data/node.main.A1444?lang=en&showonly=HWF
Density of nurses & midwives (per 1000, 2014)

Liberia: 0.266
Sierra Leone: 0.319
Guinea: 0.466

Source: http://apps.who.int/gho/data/node.main.A1444?lang=en&showonly=HWF
Shifting demands on health professionals

Population growth & ageing, epidemiological transition

Driving forces
- Health needs
- Demographics
- Disease burden
- Epidemics

Health systems
- Financing
- Technology
- Consumer preferences

Context
- Labour and education
- Public sector reforms
- Globalization

Workforce challenges
- Numbers
  - Shortage/excess
- Skill mix
  - Health team balance
- Distribution
  - Internal (urban/rural)
  - International migration
- Working conditions
  - Compensation
  - Non-financial incentives
  - Workplace safety


Retirement, supply of graduates
Public policy levers to shape health labour markets

Summary of building blocks

Third-party payers

Relationship:
• integrated $\rightarrow$ contracts
• none $\rightarrow$ integrated $\rightarrow$ contracts
• contracts more sophisticated (volume, price, quality)

Providers
What is purchasing?

- What services?
- How much?
- From whom?
- How to buy?
- Who should buy?
- For whom?

Strategic purchasing = “proactive decisions … about which services should be purchased, how and from whom” (WHO 2000)
Aims of provider payment: What do we want providers to do? That...

- they care for patients when they need care? ... and do not risk-select ...
- they provide services? ... and are not idle ...
- services are provided only if appropriate? ... and not unnecessarily ...
- expenditure is well controlled? ... and not sky-rocketing ...
- services are efficiently provided? ... and money not wasted ...
- service provision is transparent? ... and not opaque ...
- provided services are of high quality? ... and do not endanger patient safety ...

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Basic forms of payment

• **Fee-for-service (FFS):** every single service is paid separately (each ECG, each physical examination ...)

• **Capitation:** a provider (most often a general practitioner) receives a sum of money per patient per year (or 3 months) for all services for that patient during that period

• **Per diem:** an inpatient provider receives a sum of money per patient per day *(independent of diagnosis and treatment)*

• **Diagnosis-related group (DRG) payment:** a provider (usually an acute care hospital) receives a sum of money for a patient depending on diagnosis for all services (from admission to discharge including surgery, pharmaceuticals ...)

• **Global budget** (for hospitals/ institutions) and **salary** (for physicians): a fixed sum of money for all patients treated within a certain period of time
Expenditure on “retail” pharmaceuticals and other medical non-durables as a share of GDP, 2004–2014

Source: OECD, 2016a.

27 September 2019

Summary of building blocks

Why the difference to previous figures?
### Definitions (of WHO)

<table>
<thead>
<tr>
<th><strong>Pharmaceuticals</strong></th>
<th><strong>Medical Devices</strong></th>
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</thead>
<tbody>
<tr>
<td>... <strong>any substance or pharmaceutical product</strong> for human or veterinary use that is intended to modify or explore physiological systems or pathological states for the benefit of the recipient...</td>
<td>... <strong>any instrument, apparatus, [...] machine, appliance, implant, reagent for in vitro use, software, material or other[s...], intended by the manufacturer to be used [...] for human beings, for [...] the specific medical purpose(s) of:</strong></td>
</tr>
<tr>
<td>... a pharmaceutical product is defined by its active ingredient [...] which is] the <strong>chemical substance[s]</strong> contained in a pharmaceutical, responsible for the therapeutic effect.</td>
<td>• diagnosis,</td>
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<td></td>
<td>• prevention,</td>
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<tr>
<td></td>
<td>• monitoring,</td>
</tr>
<tr>
<td></td>
<td>• treatment or</td>
</tr>
<tr>
<td></td>
<td>• alleviation of disease/injury,</td>
</tr>
<tr>
<td></td>
<td>• etc.</td>
</tr>
<tr>
<td></td>
<td>... <strong>and does not</strong> achieve its primary intended action by <strong>pharmacological</strong>, immunological or metabolic mean...</td>
</tr>
</tbody>
</table>
Necessary evidence for pharmaceuticals

Safety and Efficacy are *first* steps to provide evidence for a new drug; also Effectiveness and Efficiency need to be proven.

<table>
<thead>
<tr>
<th>Safety</th>
<th>Efficacy</th>
<th>Effectiveness</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure of adverse effects</td>
<td>Measure of effect under <em>ideal</em> conditions</td>
<td>Measure of effect under “real life” conditions and vs. other drugs</td>
<td>Relationships between costs and benefits</td>
</tr>
</tbody>
</table>

*Health Technology Assessment (HTA): coverage? reimbursement price?*
Regulation of medical devices in the EU

• There is no central licensing authority like for medicines
• Medical devices require a certificate of conformity to EU medical device regulations ("conformité européenne", so-called CE mark) to be marketed
• The conformity assessment is carried out by so-called notified bodies
• Notified bodies are independent certification bodies designated by national Competent Authorities in EU Member States. They perform third-party conformity assessment activities including calibration, testing, certification and inspection.
• Ca. 50 notified bodies in the EU, 10 in Germany (some countries don’t have their own).
Example 1: The German health system at a glance

Health Systems in Transition
Vol. 16 No. 2 2014

Germany
Health system review

Reinhard Busse • Miriam Blümel
The German system at a glance

Collector of resources

Health Fund

“Risk-structure compensation”

Third-party payer

109 sickness funds

41 private insurers

Provider

Public-private mix, organised in associations

ambulatory care/hospitals

Population

Universal coverage:

SHI: 88%

PHI: 11%

Choice of fund/insurer

Risk-related premium

Uniform wage-related contribution + extra contribution set by sickness funds

strong delegation & limited governmental control

Choice

contracts, mostly collective

PHI: no contracts

Summary of building blocks
Guiding framework for MPhil

THE WHO HEALTH SYSTEM FRAMEWORK

SYSTEM BUILDING BLOCKS

- SERVICE DELIVERY
- HEALTH WORKFORCE
- INFORMATION
- MEDICAL PRODUCTS, VACCINES & TECHNOLOGIES
- FINANCING
- LEADERSHIP / GOVERNANCE

OVERALL GOALS / OUTCOMES

- IMPROVED HEALTH (LEVEL AND EQUITY)
- RESPONSIVENESS
- SOCIAL AND FINANCIAL RISK PROTECTION
- IMPROVED EFFICIENCY

ACCESS

COVERAGE

QUALITY

SAFETY
Further courses on building blocks

- **LEADERSHIP / GOVERNANCE**
  - Leadership for Health Systems Transformation
  - Principles of Management
  - Quality Assurance
  - Hospital Administration

- **FINANCING**
  - Health Systems Financing
  - Health Economics

- **MEDICAL PRODUCTS, VACCINES & TECHNOLOGIES**
  - Health Care Industry
  - Health Technology Assessment
• INFORMATION
  – Epidemiology & Management Information Systems I & II
  – Health Systems Research I & II
  – Biostatistics I & II

• HEALTH WORKFORCE
  – Human Resources for Health

• SERVICE DELIVERY
  – Innovations in Chronic Disease Care and eHealth