Overview

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1. The role of the health workforce in the health care system

- A “production function” framework
  - Decisions about the HW should not be made in isolation from the rest of the health care system
  - HW is but one input to improve population’s health and well-being
  - A variety of interrelated and dynamic factors: systems organization and financing, infrastructure, sanitation, etc.
  - HW size, distribution, and productivity can only be examined by accounting for all these factors (figure)
OUTCOMES - Population health, well-being, costs, and equity

Social and economic determinants of health
Education, income, public health infrastructure (e.g. sanitation), lifestyles, family and social factors, informal care

OUTPUTS - Health care services
Number, type, location and quality of visits within the health care system

INPUTS - Labor
Numbers, FTEs, type, specialty, age-gender composition, knowledge, skills, ability

INPUTS - Capital
Buildings (hospitals, aged care facilities, primary care practices), IT/e-health, equipment and medical devices, pharmaceuticals, supplies

Health care funding

SOURCE: World Bank, forthcoming; Scott et al., 2011.
2. Why labor market forces matter?

• Traditional approaches to resolving HRH have relied primarily on “scaling up” interventions that increase the supply of health workers

- estimating health workforce requirements based on a country’s epidemiological and demographic profile

- This assumes that more health workers are a cost-effective way to improve the population’s health

- Though training and numbers are clearly an issue...

...the employment opportunities available and health workers’ employment decisions are not always aligned with priority health-care needs
Health workforce challenges

• Once trained health workers prefer low-priority roles, engage in (unregulated) dual-practice, migrate, or fail to work productively in high-priority roles

• Sometimes a paradoxical situation arises:
  - vacancies in high-priority positions in the public sector coexist with high unemployment rates among health workers
  - e.g., Kenya, Mali and Senegal
  - Acute under-employment among doctors and nurses, yet simultaneously investing substantial public funds in producing more health workers
Health workforce dynamics, Togo

Production: 890 doctors trained

- Migration: 250
- Retired: 20
- Unemployed: 20
- Employed full-time in the Government sector: 400
- Employed full-time in the private for profit sector: 200

Concentrated in the capital city (20% of population): 75% of employed doctors

Serving 80% of the population: 150 doctors

3. Health Labor Markets: a framework for analysis

- An labor market approach is fundamental to fully understand the issues of health workforce shortages, productivity, and performance, and the appropriate policy responses

- HLM is a dynamic system comprising two distinct but closely related economic forces: the supply of health workers and the demand for such workers

- whose actions are shaped by a country’s institutions and regulations

- The demand for HW => willingness-to-pay (WTP) to hire them

- The supply of HW => the number of trained individuals willing to work in the health sector
SOURCE: McPake et al., 2013 - adapted from Soucat et al., 2012.
4. Market forces and market failures in HLM

- **In a well-functioning labor market**, wages or “compensation” act as the mechanism whereby the intentions of buyers and sellers are reconciled

  - *Labor markets are said to “clear” when the supply of labor matches the demand for workers*

- **When they fail to do so**, they exhibit either **labor surplus** (unemployment) or **labor shortage**

  - Markets fail to “clear” either because **prices are not flexible** or demand or/and supply does not adjust to price signals
Possible labor market scenarios

- Labour shortage
- Market clearing equilibrium
- Unemployment
### Demand

- Wages and reimbursement levels for health workers do not reflect consumers’ valuation of the services provided

- *regulation of minimum quality standards*

- Wages usually fixed by legislative process or tied to civil service regulation => rigidities

- Result that market signals may result in suboptimal allocation of labor

### Supply

- *regulation of minimum quality standards*

- Licensing, certification and accreditation

- *restricted entry, inputs substitution and higher wages*

- rationing of medical school slots

- Government regulation leads to higher wages and inflexibilities in the labor market such that supply takes a long time to respond to changes in demand
5. Main analytical approaches

• The type of **empirical labor market analysis** (and data collected) should be driven by the **policy issues** and **research questions** being addressed

• **Need to ask the right question:**

  i) “Dual practice is bad and should be discouraged”

  ii) “Given the current state of dual practice, what policies can be introduced to alter the mix the dual practice that can lead to better outcomes at lower cost, or improved equity?”

  iii) “Does the introduction/removal/change in dual practice influence outcomes, costs and equity?”
Analytical approaches I

• Two main types of labor market analysis use an explicit economics framework: descriptive and causal analysis

=> Descriptive labor market analysis helps establish the nature and extent of labor market disequilibrium

- Demand and supply conditions, institutions

- What are the issues and potential research questions?

• Data on demand, compensation, market structure, supply, interaction of demand and supply, trends and distribution
Analytical approaches II

• Causal labor market analysis aims to identify the effects of changes in labor market conditions on the behavior of both employers and workers

...and on the value of these changes to society

- What factors influence the labour market behaviour of health workers and employers?

- Highly relevant to developing policies/strategies to change behaviours (UHC progress?)
Data requirements

• Existing sources of health workforce data

=> Administrative data:
- Census data, personnel records, claims data, registrations and licensing data, tax records, health insurance data

=> Survey data:
- General household and labour force surveys that include health worker occupations

• EARNINGS – WAGES – INCOME: Central role in the economic analysis of labour markets
MABEL Conceptual Framework

- Changes in number of hours worked
- Change of job
- Change of sector
- Change of geographic location
- Choose specialty
- Exit workforce
- Change in productivity (number of patients seen per week)

Primary outcomes

- Education, experience, skills, personality, locus of control
- Characteristics of geographic area/population
- Characteristics of job
- Family circumstances

Earnings

Job Satisfaction

6. HLM analysis and HRH policies

- Were constraints to supply are most important, policies such as expanding training opportunities may be appropriate.

- Where constraints on demand are most important, policies such as increasing the funding available for the health workforce are likely to be appropriate.

- In some cases, solutions may require structural changes to the labor market, such as the re-organization of the service delivery system and changes in the skills required of health workers (e.g. greater use of mid-level health workers).
Applying (labor) economic frameworks to analyze the labor market for health workers helps to understand the diverse and interrelated constraints affecting HRH, the impact of health policies on HRH and the employment dynamics in the health sector (and its relationships to the economic cycle)
Employment in the health and social sectors as share of total employment, OECD 1995/2009

SOURCE: OECD Indicators, 2011.
Cumulative percentage of Health and Non-Health employment, US 2007/13

Thank you

www.worldbank.org/human-resources-for-health