NHA: Its uses and issues for institutionalization

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Outline

• Introduction
  – A short history
  – What is NHA?
  – International standards

• How is NHA used
  – Approaches
  – Examples

• Issues in institutionalization
History of NHE Estimation

1940-60s: Academic studies in a few countries
   Costing of UK NHS (Abel-Smith and Titmuss, 1956)

1960-64: USA Medicare
   Establishment of US National Health Accounts

1963-67: First cross-country studies
   WHO (Abel-Smith, 1963-67)

1970s: OECD mandate
   OECD co-operation to control health spending ⇒ OECD Health Data ⇒
   Comparative analysis of determinants of health spending

1990s: Shift from NHE to NHA & Extension of NHA
   outside OECD region
   China, Philippines, Thailand, Egypt, Russia, Hong Kong, Sri Lanka . . .
What Are National Health Accounts?

A statistical system comprising descriptive accounts that describe the totality of expenditure flows in both the government and non-government sectors. They describe the source of all funds utilized in the sector and the destination and uses of those funds.
Typical Health Account Table
Example: Functions by sources (%)

<table>
<thead>
<tr>
<th></th>
<th>Government</th>
<th>Employers/Insurance</th>
<th>Out-of-pocket</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient care</td>
<td>25</td>
<td>2</td>
<td>7</td>
<td>34</td>
</tr>
<tr>
<td>Outpatient care &amp; medicines</td>
<td>12</td>
<td>3</td>
<td>37</td>
<td>53</td>
</tr>
<tr>
<td>Public health services</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>50</strong></td>
<td><strong>6</strong></td>
<td><strong>44</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Total spending, Sri Lanka (2006) = 4.2% of GDP, $57 per capita
A “System of Health Accounts”
OECD (2000)

Developed by OECD:

• To provide standard reporting tables for international comparison
• To provide an internationally harmonized boundary for health care activities
• To provide a consistent framework for analyzing health systems
• To provide a rigid framework for building NHA to permit consistent reporting over time
• Endorsed by WHO for international reporting
Features of OECD SHA

- Provides explicit and comprehensive boundary of health and health-related production
- Analyzes health expenditures in three dimensions: *sources*, *providers* and *functions*
- Detailed sets of classifications for the uses of spending: providers and functions
- Linkages with other international classifications, including SNA
- Basis for adaptation to meet specific national requirements
Reporting National Spending

- HC.1 Services of curative care
- HC.2 Services of rehabilitative care
- HC.3 Services of long-term nursing care
- HC.4 Ancillary services to health care
- HC.5 Medical goods dispensed to out-patients
- HC.6 Prevention and public health services
- HC.7 Health administration and health insurance
- HC.R.1 Capital formation
- HC.R.2 Education and training
- HC.R.3 Research and development
- HC.R.4 Food, hygiene and drinking water control
- HC.R.5 Environmental health
- HC.R.6 Social services in-kind
- HC.R.7 Health-related cash-benefits

Total Current Expenditure on Health

Total Expenditure on Health (TEH)

General Expenditure on Health (GEH)
A System of Health Accounts

Guide to producing national health accounts

with special applications for low-income and middle-income countries
How is NHA used?
Uses of NHA

NHA statistics

- Monitoring of trends
- Diagnosing financing problems
- Monitoring reforms
- Geographical disparities
- International comparisons

NHA data and tools

- Explaining trends
- Cost projections
- Looking at impact of spending
- Designing reforms
- Equity
- Efficiency
NHA Uses: International Comparisons of Levels

USA
UK
Hong Kong
Malaysia
Thailand
China
Sri Lanka
India
Bangladesh

% GDP

Public
Private
NHA Uses: International Comparison of Trends 1990-2002

- Sri Lanka
- Thailand
- Malaysia
- China
- Hong Kong
- Taiwan
- Japan
- USA

Public expenditure (% GDP)
NHA Uses: Geographical Disparities

Figure 16: Total public health expenditure per capita by province (Rs), 2005

Figure 14: Per capita health expenditure by financing source (Rs), 2005

Not: Excludes expenditure on all kinds of personal medical services and national collective services.
NHA Uses: Analysis of Spending by Age, Sri Lanka (2005)
NHA Uses: Sri Lanka Cost Projections

Expenditures as percentage of GDP

- 0-14
- 15-59
- 60-74
- 75+


Expenditures:
- 0.4%
- 2.0%
- 1.3%
- 2.4%
- 2.3%
- 0.9%
- 0.7%
- 0.6%
- 1.2%
- 1.6%
- 2.7%
- 0.8%

Changes in NHE as % GDP from baseline level in 2005

- Ageing: 0.4%
- Outpatient demand: 0.5%
- Inpatient demand: 0.2%
- Public sector productivity: 0.3%
- Private medical price inflation: 0.4%
- Public-private balance: 1.4%
NHA Uses: Analyzing trends in spending on public health, Sri Lanka PER 2004
NHA Uses: Explaining changes in spending on public health, Sri Lanka PER 2004
NHA Uses: Analysis of Expenditures vs. Performance

Sri Lanka health performance relative to income

1960
1965
1970
1975
1980
1985
1990

<5 mortality
Male adult mortality
Female adult mortality

Expenditure per capita by age, Sri Lanka vs. Australia

0-4
15-24
45-54
55-64
75-84

Australia
Sri Lanka
NHA Uses: Spending by Disease, Sri Lanka (2005)
Issues in NHA Institutionalization
Benefits from institutionalization

**Production of NHA**

- Reduced cost
- Improved technical quality
- Consistency in numbers
- Improved timeliness
- Retention of critical capacity

**Use of NHA**

- Ability to use NHA as monitoring tool
- Credibility of estimates
- Familiarity of users with NHA
- Feasibility of interactive interrogation of NHA data
- Capacity to extend NHA to secondary analyses
1. Lower annual costs

- Typically $20-75,000 per year compared with $100-300,000 per intermittent NHA project
- Regular NHA estimation is usually cheaper
  - Methods rely more on use of routine, existing data than special data collections/surveys (e.g., no dedicated household surveys)
  - Respondent cooperation better
  - Continuous process allows for incremental reduction in cost of methods
  - No need for repeated development of methods
  - Easier to retain human resources/technical capacity
2. Better quality of estimates

• Estimates more likely to be consistent in methodology across time
  – Especially for private spending
  – Greater reliance on non-survey methods

• Potential for incremental improvements in quality of methods

• Increased retention of technical staff and learning-by-doing
3. Uses of NHA data and estimates

• Regular production allows monitoring of trends in expenditure
  – Usually more important to policy-makers

• Increases familiarity of policy-makers and users with NHA

• Technical capacity associated with institutionalized NHA more likely to be able to undertake secondary analyses
  – But may depend on competencies of NHA unit and its location
Institutionalization: Sri Lanka Timeline

TIMELINE
- Phase 0
- Phase 1 - Development
- Phase 2 - Consolidation
- Phase 3: Annual updating

COVERAGE

- NHA Extensions
- Use of NHA in policy & planning
- Cost projection model
- Disease accounts
- Linkage to GIS
- Health Master Plan
- PER 2004
- MTEF 2008/09
Some conclusions

• Institutionalization’s main benefits are better quality, lower cost estimates
• If institutionalization is within a technical agency with health systems research skills, then more likely to obtain added value
• Improving NHA systems and use is a long-term process
Thank you