Financing: Creative Financing Strategies for Cancer Treatment

Richard Sullivan, MD, PhD
Kings College London (United Kingdom)
1. **Cancer care is not ‘cheap’ or ‘cost effective’** e.g. *pancreatic surgery in public sector in India* (Financial Impact of Complex Cancer Surgery in India: A Study of Pancreatic Cancer Journal of Global Oncology 2018 :4, 1-9)

2. **Distributional paradoxes**: lack of equipment, infrastructure in public sector but (over) supply in private sector

3. Non-pharmaceutical technologies are, potentially, a much greater challenge to affordable cancer care BUT recurrent costs for additional **human capital** is being completely ignored

4. Many high income countries have serious problems managing their **debt-to-GDP ratios**; health reforms are failing (Jourmard et al. Health care systems 2010. OECD Working Paper no 769 & Economic outlook 2012)

5. Cultural and structural reforms to healthcare may be beyond the **will or ability** of many governments (Chalkidou et al. Evidenced informed frameworks for cost effective cancer care, etc. Lancet Oncology, 2014, 15:119-131)
PRICE CONTROL
Supply and Demand side policy
• Prices outside regulated systems are highly volatile

• They are higher and this, coupled to ‘irrational’ clinical choices leads to unbalanced, unsustainable costs

• Variety of mechanisms for price control but many countries have neither the technical expertise, systems and / or will to use this
Inefficiencies in Procurement Processes

- **Low visibility on drug demand** leads to under/over utilisation of budget, inadequate service delivery.

- **Weak contract management practices**, leading to failure to hold contractors to agreed service levels.

- Inadequate monitoring of stock levels and high lead time leads to **stock-outs of life saving drugs**.

Inefficiencies in Drug Market

- Low transparency in drug market leads to **information asymmetry on prices, quality**.

- Low volume purchase for critical drugs leads to **procurement at higher prices or delayed shipments**.

- Less stringent regulatory mechanisms result in procurement of **substandard quality drugs** or batches.
1. Informed Buying
   - **Cancer centres share information:**
     - purchase price, quantity, manufacturer
     - Manufacturer performance
   - Members **negotiate and purchase individually**
   - All cancer centres

2. Coordinated Sourcing
   - Select members **conduct joint**
     - market research, monitor prices, jointly negotiate
   - **Similar** forecasting, quality and payment **processes**
   - Members **purchase individually**
   - Select members which can coordinate on formulary, timelines and quantities

3. Group Contracting
   - Select members **jointly tender**, procure through a common procurement entity
   - **Common** forecasting, quality and payment **processes**
   - **Phase 1** – Common tender, separate payments
   - **Phase 2** – Common tender and payments
   - Select members which can formalize into a group procurement unit

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COSTS
Recurrent and Capital
Patient Impact

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Cost of breast cancer treatment in Kenya in 2016

<table>
<thead>
<tr>
<th>Breast Cancer Treatment</th>
<th>Percentage of Patients</th>
<th>Public Facility (U.S.$)</th>
<th>Private Facility (U.S.$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I</td>
<td>7</td>
<td>1,340.38</td>
<td>10,914.45</td>
</tr>
<tr>
<td>Stage II</td>
<td>35</td>
<td>1,340.38</td>
<td>10,914.45</td>
</tr>
<tr>
<td>Stage III (curative approach)</td>
<td>19</td>
<td>1,542.58</td>
<td>11,862.36</td>
</tr>
<tr>
<td>Stage III (palliative approach) and Stage IV</td>
<td>40</td>
<td>675.35</td>
<td>8,569.87</td>
</tr>
</tbody>
</table>

Annual Household income though is **272.4 (rural) to 712.20 (urban) USD**

Households that use distressed financing for their breast cancer care in India in 2012

55% who used private sector care
40% who used public sector care

Cannot assume same spectrum of costs as you would see in high income settings

- Stage I/II: Total = $82,121
  - Surgery: 20
  - Drugs: 18
  - Radiology: 21
  - Other inpatient: 16

- Stage III: Total = $129,387
  - Surgery: 29
  - Drugs: 16
  - Radiology: 20
  - Other inpatient: 18

- Stage IV: Total = $134,682
  - Surgery: 28
  - Drugs: 9
  - Radiology: 25
  - Other inpatient: 16

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• **Cost data from LMIC is VERY poor**: lack of time sensitive studies, lack of **mixed methods**, lack of interest in conducting such studies and lack of funders interested in funding this. **Cannot extrapolate from high income settings**

• Need time specific data for each country / region / hospital

• Calculations require recurrent AND capital estimates but little use of formal business methods to do this
Need costing studies of the whole ‘pathway’ NOT just the hospital therapeutic geographies and patient dynamics are very unstable

Audrey Tsunoda. *Migration of breast cancer patients in Brazil*
Developing institutions for cancer care in low-income and middle-income countries *Lancet Oncology* 2018 8: 395-406
Breast Health Global Initiative – 2018 Global Summit
Seattle, Washington

October 15 – 17, 2018

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CASE FOR INVESTMENT
And Value
But bare in mind what you think should be invested in is probably not what others do
Divergent, unstable health priorities: where does breast cancer fit in?

- NCDs
- Communicable, maternal and perinatal and nutritional conditions
- Injuries

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THE LANCET Oncology

Global cancer surgery: delivering safe, affordable, and timely cancer surgery

Global Surgery 2030: evidence and solutions for achieving health, welfare and economic development

@GSCommission

India: cancer burden and health systems

Published: April 12, 2014

India: Towards Universal Health Coverage

Published: January 11, 2011

Executive Summary

This Series of papers on India's path to full health coverage reveals that a failing health system is perhaps India's greatest predicament. The papers in this Series reveal the full extent of opportunities and difficulties in Indian healthcare, by examining infectious and chronic diseases, availability of treatments and doctors, and the infrastructure to bring about universal health care by 2020. The Series brings together a rapidly growing body of evidence to show that Indian health is in crisis. As the country with the largest democracy in the world, India is well positioned to put health high on the political agenda.

Integrated Cancer Centre

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**Investment to scale up:** need country specific cases building on already validated methods using real data e.g. HERO in RXT

Value: formal mechanisms for health technology assessment
Highly specialised and most LMIC do not have this BUT will need it

Need to engage external expertise e.g. IDSI (www.idsihealth.org)

AFFORDABILITY
Universal Health Coverage for breast cancer: fantasy island?
What countries spend on their public THE and protection they afford to patients is what matters for affordability.
For fragile countries, low HDI you do have to question whether, at this time, (breast) cancer care is affordable, if not then it’s charitable or ODA
Financing of domestic healthcare for BC – Byzantine!

Revenue collection
- taxes
- public charges
- sales of natural resources

Pooling

Resource allocation or purchasing (RAP)
- government agency
- social insurance or sickness funds
- private insurance organizations
- employers
- individuals and households

Service provision
- public providers
- private providers

King's Health Partners
Integrated Cancer Centre
Challenge for mobilising domestic resources for BC – need to collect and manage financial resources in a way that unpredictable individual financial risks become predictable, and are distributed among all the members of the pool.
<table>
<thead>
<tr>
<th>Model</th>
<th>Revenue Source</th>
<th>Groups Covered</th>
<th>Pooling Organization</th>
<th>Care Provision</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Health Service</td>
<td>General revenues</td>
<td>Entire population</td>
<td>Central government</td>
<td>Public providers</td>
</tr>
<tr>
<td>Social Health Insurance</td>
<td>Payroll taxes</td>
<td>Specific groups</td>
<td>Semi-autonomous organizations</td>
<td>Own, public, or private facilities</td>
</tr>
<tr>
<td>Community-based Health Insurance</td>
<td>Private voluntary contributions</td>
<td>Contributing members</td>
<td>Non-profit plans</td>
<td>NGOs or private facilities</td>
</tr>
<tr>
<td>Voluntary Health Insurance</td>
<td>Private voluntary contributions</td>
<td>Contributing members</td>
<td>For- and non-profit insurance organizations</td>
<td>Private and public facilities</td>
</tr>
<tr>
<td>Out-of-Pocket Payments (including public user fees)</td>
<td>Individual payments to providers</td>
<td>None</td>
<td>Public and private facilities (public facilities)</td>
<td></td>
</tr>
</tbody>
</table>
NHS Systems

Systems financed through general revenues, covering whole population, care provided through public providers

**Strengths**

- Pools risks for whole population
- Relies on many different revenue sources
- Single centralized governance system has the potential for administrative efficiency and cost control

**Weaknesses**

- Unstable funding due to nuances of annual budget process
- Often disproportionately benefits the rich
- Potentially inefficient due to lack of incentives and effective public sector management

Free breast cancer care at designated hospitals (but what about other conditions?)

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Social Health Insurance

Systems with publicly mandated coverage for designated groups, financed through payroll contributions, semi-autonomous administration, care provided through own, public, or private facilities

**Strengths**

- As a ‘benefit’ tax, there may be more ‘willingness to pay’
- Removes financing from annual general government appropriations process
- Generally provides covered population with access to a broad package of services

**Weaknesses**

- Poor are often excluded unless subsidized by government
- Payroll contributions can reduce competitiveness and lead to higher unemployment; earmarking removes flexibility
- Can be complex and expensive to manage, which is particularly problematic for LICs and some MICs
- Can lead to cost escalation unless effective contracting mechanisms are in place
- Often provides poor coverage for preventive services and chronic conditions

Often associated with choice of provider (but this assumes information symmetry) and furthermore that this covers real costs.
Need to understand how social insurance systems do and do not work in each country – DO NOT assume they can and will cover breast cancer care

- Ensure that public health purchasers have the mandate and accountability to purchase high-quality services for the population with financial protection (Ghana’s legislation and annual NHIA report to Parliament on equity)

- Strengthen integrated service delivery networks (Thailand district health system as the contracting entity)

- Create the right balance of autonomy and accountability for providers to respond to incentives and serve the public interest (Sri Lanka “do more with less”)

- Use information to understand, motivate and improve provider performance (Argentina Plan Sumar)

- Create the right incentives through properly aligned provider payment systems (Argentina Plan Sumar; Thailand UC Scheme)
MUST have regulation of both private and public sector care – supply and demand side

- Myth of private and public partnership– rent seeking at every level
- Quality and appropriateness of care
- Pay differentials
- Technology overuse
- Massive problem with unregulated private market – cancer is THE most lucrative area in healthcare

UHC in Turkey: enhancement of equity
Lancet 2013, 382: 65-99

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• **We are awash with economic Kommentariat, modelling and aggregation that is high-income dominated and barely reflects the ground reality for financing cancer care.**

• Breast cancer financing as a Trojan horse - advocacy for public THE, for building surgery, pathology etc.

• Need detailed ground assessments, and detailed financial plans with stratification of funding and revenue sources.

• Need more detailed studies of economics of BC across all your settings
