Improving Access to Innovative Health Technologies

Panel Discussion
ISPOR Dubai - September 20, 2018
Improving Access to Innovative Health Technologies

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Improving Access to Innovative Health Technologies
ISPOR Panel Session
Dubai, 20 September 2019
The many faces of innovative health technology and their interdependency

Product innovation

Process innovation

Engagement innovation

Organizational innovation


Hafston N. et al, Health Affairs November 2014
Access to healthcare technologies is a multidimensional challenge

**Key factors that need to be in place for patients to be treated successfully**

- **Awareness** of disease and symptoms is essential for screening and early detection.
- **Diagnosis** of the disease can be complex, but is vital to ensuring the right treatment choice.
- **Healthcare capacity** needs well-trained teams working together with the right equipment to provide the best chances for patients.
- **Funding** for healthcare investment and reimbursement of medicines and tests is critical to protect patients from financial burden.
Aligning financial opportunity and growing expectations towards the coverage of innovative health technologies

Figure adapted from the World Health Report 2010

WHO. Making fair choices. 2014
Improving Access to Innovative Health Technologies

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Improving access to Innovative Health Technologies: WHO Perspective

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"Health technologies" refers to the application of organized knowledge and skills in the form of devices, medicines, vaccines, procedures and systems developed to solve a health problem and improve quality of lives. (WHA 60.29.)
Improving access to innovative health technologies, September 2018

**World Health Organization**

*Regional Office for the Eastern Mediterranean*

**ISPOR Meeting, Dubai**

**HT Policies**

- **Health technology Innovation**
  - Medical Processes (R&D)
  - Business Processes (Marketing, Financing, IT &/or Operating)

**Valley of Death**

- **Health technology regulation**
  - Safety
  - Performance (devices)
  - Efficacy (drugs)

- **Health technology assessment**
  - Clinical effectiveness
  - Ethics
  - Social issues
  - Organizational

- **Health technology management**
  - Procurement
  - Selection
  - Training
  - Use
WHO defines HC innovation as an integration of...

- Scientific / Technological Innovation
- Business Innovation
- Social Innovation

INTEGRATED INNOVATION
Integrated Innovation Framework

(Bhattacharyya et al., University of Toronto, 2008)
Innovation in Medical Processes

• They are changes in the way a given service is provided, either through a new protocol or use of a new technology or treatment methodology.

• Innovation can be made at any HCD level; namely: *Prevention, Diagnosis, Treatment, and Rehabilitation.*

• Innovation in medical processes can be
  – A Win-Win situation for enterprises and public health (e.g. HT addressing unmet PH needs).
  – Of no value to PH but of great gains to innovators (e.g. sophisticated features added to diagnostic machines)
  – Of great PH value but of limited gains to innovators (e.g. orphan drugs)
To adopt or not to adopt?

• People often decide whether or not to adopt an innovation based on:
  – Appropriateness and Added Value
  – Utility of invention
  – Disruptive effects on existing habits
  – Personal values
  – Social status
Appropriateness is a real factor.

Landscape of Health and Technology

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<th>Appropriate Technology Initiatives</th>
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Source: Guidestar & Innovations in International Health at MIT

NEED FOR HTA
Willingness to adopt new HT

• Within any population, people have different abilities & willingness to adopt new HT.

• They can be categorized as:
  – “Innovators” constituting 2.5% of pop;
  – “Early adopters” constituting 13.5% of pop;
  – “Early majority” and ”Late majority”, respectively constituting 34% each of pop;
  – “Laggards” constituting 16% of the pop.

• When considering barriers to innovation, it is important to differentiate between obstacles to innovative ideas and obstacles to the uptake of medical innovation.
Barriers to uptake of innovative HT

- **Reluctance** to alter existing practices or be trained to develop new skills
- **Resistance** *can be based on* reluctance of the medical community to adopt new technologies.
- **Rejection** by traditional communities proud of their culture *or* of local brands in favor of international brands.
- **Inappropriate Design**: An ex. of inappropriate design could be the failure of affordable wooden-seat wheelchairs to achieve widespread use among users in Nicaragua (out-of-context situations)
- **Cost** of innovative product:
  - Innovations lead to escalation in HC expenditures.
  - Costs can cause some innovations to diffuse, while others may not
- **Regulations** ensure safety but can also be a financial burden on designers and manufacturers, especially in low-resource settings.
Overcoming barriers to effective uptake

• **Lowering costs through creative financing mechanisms:**
  – Reimbursement at a greater level than cost (e.g. led to adoption of coronary angioplasty and resistance to adopt cochlear hearing implants)
  – Creation of **locally-owned companies** to manufacture for local markets.
  – **Subsidize R&D** for domestic products to be used in rural areas.

• **Lowering costs through negotiations:**
  – **Pool Purchasing**: Build market power by aggregating purchases to gain negotiating leverage over companies (e.g. GCC council).
  – **HTA**: Use an authoritative group of experts to systematically assess the value of individual HT, using the best available information on benefits & expenses
  – **Public Trust**: Enter a negotiation with suppliers backed up by public trust to reach an agreement on a price on their behalf.
Overcoming barriers to effective uptake

• Identifying local design priorities
  – Overcoming out of context products
  – R&D on appropriate local context is needed (e.g. Jaipur foot)

• Networking for innovation
  – Free exchange of knowledge and experience of imaginative ideas.
  – Institutions to bridge the gap between research & commercial applications
  – WHO call for innovative HT (launched in 2009)

• Partnership with
  – Manufacturers in industrialized countries to strengthen local capacities to design and produce HT.
  – Private sector for public benefit to lower risk/return ratio in poor settings
“We will not be able to enjoy relative health security unless we continue to innovate and to bring on new technologies to improve health outcomes”

Francis Gurry, WIPO Director General

During 2018 1-day meeting on innovation, health and the Sustainable Development Goals

Also attended by

Tedros Adhanom Ghebreyesus, WHO Director General

Roberto Azevêdo, WTO Director General
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