Technological Innovation from the Viewpoint of Equity and Solidarity

Clalit Health Services’ efforts and experience

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What is innovation in healthcare?

PCSK9-Inhibitors for lowering LDL

Prescription drug costs are spiraling out of control!

Average Annual Cost of Therapy

PCSK9 Inhibitors (Praluent™)

Statins

$14,600  ➔  +7.700%

$186

Will novel drugs improve peoples’ health?

Depends on which people...
And from which point of view...

Can technological innovation...
- Reduce costs?
- Encourage equity/solidarity?
Types of technological innovation in healthcare

**Novel Treatments**

Developing new forms of medical treatments

- Genetic medications
- Biologic medications
- Medical implants & devices
- Stem cell treatments
- Cellular immunotherapy
- Etc.

**Novel Clinical Practice**

New forms of delivering / practicing existing medical treatments

- Digital healthcare
- AI-based algorithms
- Targeting high risk patients
- Medical decision support
- Telemedicine
- Etc.
Cost of scaling

**Novel Treatments**

Do more with much more

**Novel Clinical Practice**

Do more with much less
UHC & Tallinn values’ point of view

Cost for healthcare system

Novel Treatments
Novel Practice

Equity

Sustainability

Novel Treatments
Novel Practice

Novel Treatments
Novel Practice

Novel Treatments
Novel Practice
Types of technological innovation in healthcare

Novel Treatments

Novel Clinical Practice

Examples

CLALIT

Clalit Research Institute
### Enter Patient's Data

<table>
<thead>
<tr>
<th>Age</th>
<th>78</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Race</td>
<td>No</td>
</tr>
<tr>
<td>Smoking Status</td>
<td>Former Smoker</td>
</tr>
<tr>
<td>Weight (Kg)</td>
<td>77</td>
</tr>
<tr>
<td>Height (M)</td>
<td>1.63</td>
</tr>
<tr>
<td>Cardio-vascular disease (clinical or subclinical)</td>
<td>No</td>
</tr>
<tr>
<td>eGFR (mL/min/1.73 m²)</td>
<td>47</td>
</tr>
<tr>
<td>Total cholesterol (mg/dL)</td>
<td>212</td>
</tr>
<tr>
<td>High density cholesterol (HDL) (mg/dL)</td>
<td>75</td>
</tr>
</tbody>
</table>

* For a time period of 3 years

- **Initial risk**
- **Individual Absolute risk reduction (iARR)**
- **Individual Absolute risk increase (iARI)**

* iNNT/H: individual Number Needed to Treat/Harm*
Computerized vision for hip fracture prevention

Existing CT scans

AI-based computerized vision

Automatic fracture risk scores

Targeted cheap & effective intervention
Telemedicine – point of care is everywhere
Policy makers’ point of view

Novel Treatments

- Well-oiled machine

Novel Clinical Practice

- Large barriers to market entry
IT challenges

» Upfront investment to create digital infrastructure

» Integrating the data silos
  » Central or federated databases
  » Focus on maintaining patient privacy!

» Adaptability of computer systems (electronic medical records)
Human barriers

- Symptoms
- Family history
- Blood tests
- Current meds

- Data
- AI
- Practice from a distal location
Summary points

Digital innovations as an opportunity:

» ↑ quality of care to all, ↑ equity, ↓ costs, ↑ sustainability

» Harness the power of collected data, AI advancements and mobile technologies for customizing and expanding access to care

Unlock Barriers

» IT: Integrate silos and improve adaptability

» Human: Appropriate training and gradual process