

Innovation: Week II

Health Care Innovation

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Introduction

- Innovation: different ways of doing things that bring improved outcomes ([Kennedy, 2009](#)).
- Health systems must constantly innovate.
- Respond to changing disease burdens.
- Selection of technologies to accommodate within a limited budget.
- Addressing the needs of disabled people.
- Social values can justify spending more on some patient groups than others.
- A technology's innovative nature is sometimes reflected in its social value.

What is innovative technology?

- Innovative nature/characteristics, display novelty.
- Technology's innovative characteristics → significant health-related benefits. Step change in the management of disease under consideration.
- These benefits must be “demonstrative and distinctive ”

When all three conditions are met, the technology's innovative nature may be invoked in recommending it ([Charlton and Rid, 2019](#)).

Innovative Process

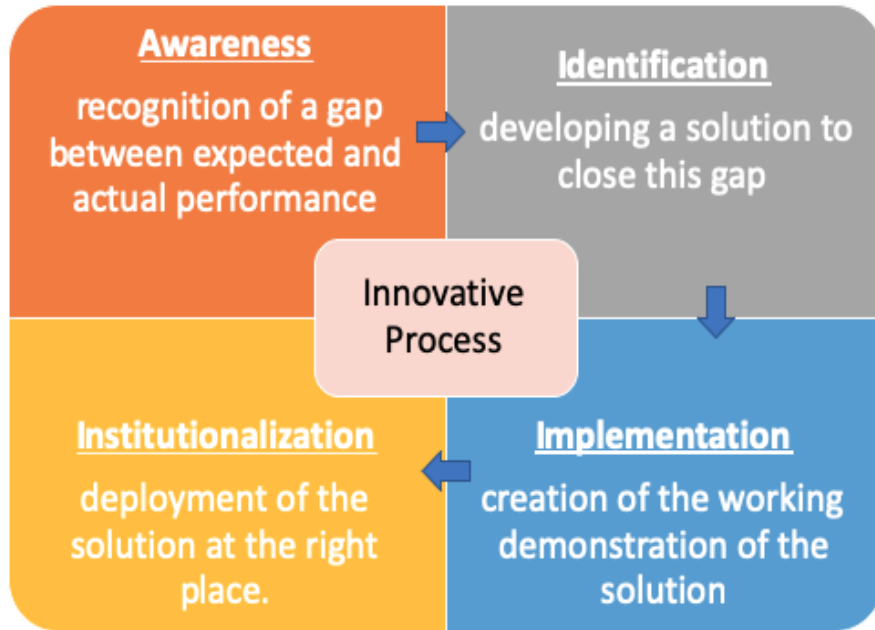


Figure 1: Innovative Process at a Glance.

Asking Right Questions: Awareness

- Innovation is about asking the **right questions** and focusing on the **right problems** ([Ness, 2012](#)).
- Focus on the root cause of real problems, within the constraints of accessible resources.
- Conversate with the frontline healthcare workers to narrow down the research problem. Talk. Explore. Don't just read. Identify Stakeholders.
- Skewed focus on advanced technologies.

Most common types of innovation

- **Product Innovation:** eg. New drug therapy.
- **Process Innovation:** which can range from new and complex models of care or even simple measures such as using volunteers to feed inpatients.
- **Position Innovation:** perform remote electronic monitoring of patient formerly admitted to hospital.
- **Paradigm Innovation:** eg, patients driving idea/opportunity generation within the health organisation

Innovation may or may not be disruptive, may involve incremental measures ([Weintraub and McKee, 2019](#)).

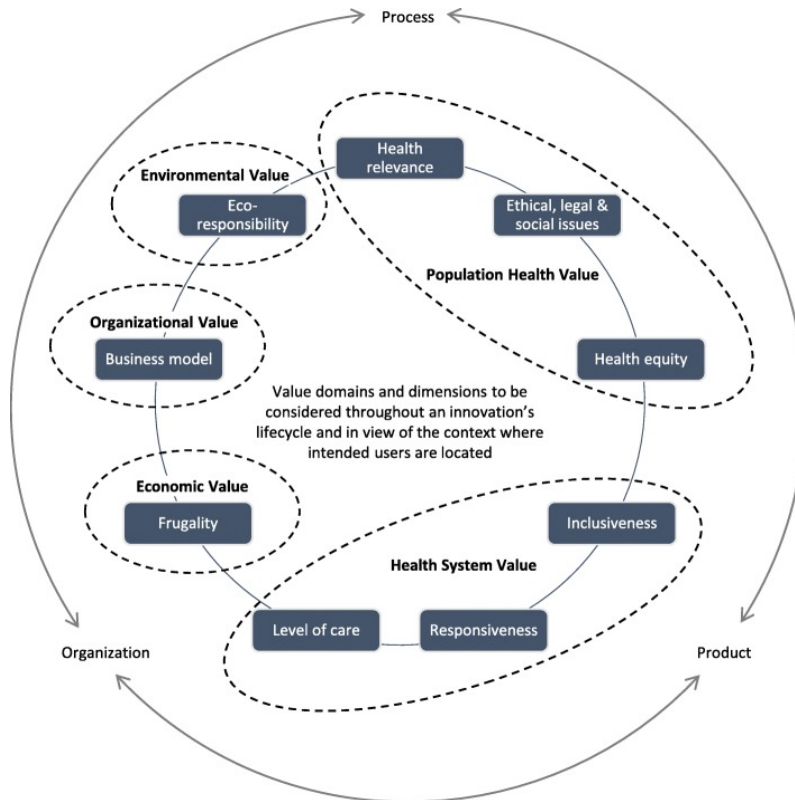


Figure 2: Responsible innovation in health framework. Source: (Pacífico Silva et al., 2018)

Framework explanation

- Framework can directly inform the work of public institutions which influence health innovations.
- Equity and Sustainability challenges and responsible innovation.
- RIH framework enables multiple stakeholders to engage into productive discussions at an early stage.

Health Care Innovation Examples and Ideas



- Lack of thorough understanding of the problem → limited entrepreneurs in healthcare.
- Health care is a 3.35 trillion dollar market.
- Culture is open to new innovation.

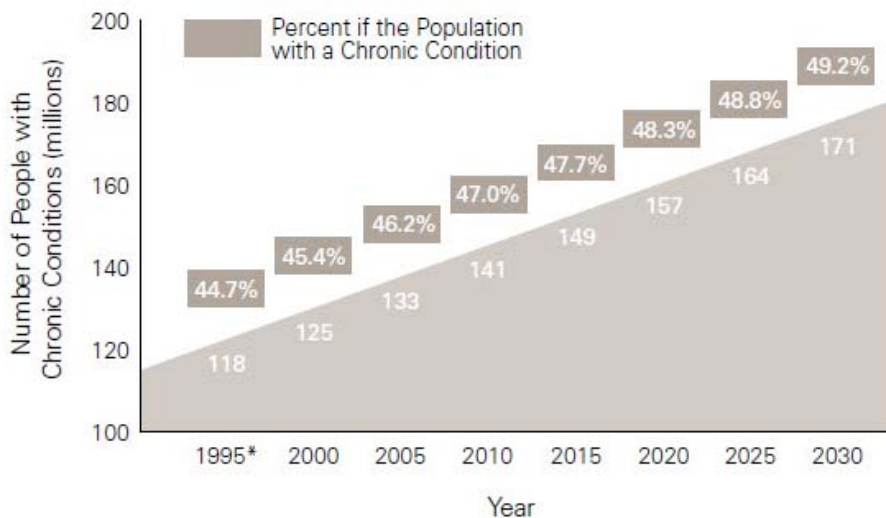


Figure 3: Number of people with chronic conditions. [Source](#)

Discussion of some ideas

- Adverse Events Prediction. Eg. Using data logged in fitness app, glucometer, oximeter.
- One-stop access to all medical reports/data. [Video](#).
- Tracking medication. [Video](#)
- Telemedicine [Video](#)
- Patient monitoring. [Video](#)
- IoT in healthcare. [Video](#)

Challenges

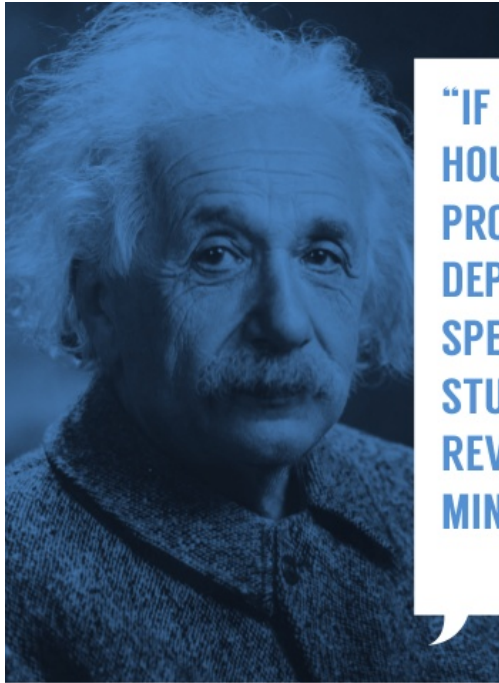
- Little adoption of solutions at scale.
- Ossification impeding the organizational innovation.
- Patient connectivity as a threat to the core business.
- Most health care is delivered on out-patient basis - rethinking required to deliver it in best way possible.
- Technology plus **Business Model Transformation**.
- Digital innovations should be seen not as point of solutions but the starting point of investment in novel business processes, designs and organizational structures.
- Innovation involves uncertainty.

Indian Context

- Neglected Rural Population.
- Rising Privatization of health care.
- Awareness of health. A study in urban Haryana found that only 11.3% of the adolescent girls studied knew correctly about key reproductive health issues ([Mittal and Goel, 2010](#)).
- Lack of central repository for health status of Indians.
- Rising burden of childhood obesity/overweight.
- Rising diabetes, hypertension.

Conclusion

- Define problems thoroughly; when possible, gather information from frontline healthcare workers and patients;
- Be open to all new ideas, especially the simple and inexpensive ones; keep it simple, silly;
- Collaborate with others from a wide range of disciplines; cooperation is paramount for public health promotion;
- Acknowledge failure as success, not defeat; innovation involves testing and learning;
- Anyone can innovate, from anywhere, at any age.
- Increasing knowledge, shifting mindset, and changing human behaviour are perhaps most pivotal to implementing these principles. Adapted from ([Palanica and Fossat, 2020](#))



**“IF I WERE TO SPEND AN
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STUDYING IT, 15 MINUTES
REVIEWING IT AND 5
MINUTES SOLVING IT”**

– ALBERT EINSTEIN

References

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