Panel on GLOBAL HEALTH/AMBIENT
Quality of Health Care

Moderator
Hassan M. Khachfe, Lebanese International University, Lebanon

Panelists
Tyler Harvey, Watson Foundation, USA
Kyota Aoki, Utsunomiya University, Japan

NexTech 2017 Conferences, 12-16/11/2017, Barcelona, Spain

Total global expenditure for health[1]	US$ 6.5 trillion
Total global expenditure for health per person per year	US$ 948
Country with highest total spending per person per year on health	United States (US$ 8362)
Country with lowest total spending per person per year on health	Eritrea (US$ 12)
Country with highest government spending per person per year on health	Luxembourg (US$ 6906)
Country with lowest government spending per person per year on health	Myanmar (US$ 2)
Country with highest annual out-of-pocket household spending on health	Switzerland (US$ 2412)

Top 12 Countries With the Best Healthcare System

1. Luxembourg	2. Singapore
3. Switzerland	4. Japan
5. Netherlands	6. Sweden
7. Hong Kong	8. Australia
9. Israel	10. Germany
11. Belgium	12. New Zealand

Source: WHO (http://www.who.int/mediacentre/factsheets/fs319/en/) – retrieved on 14/11/2017

Quality of Health Care

Kyota Aoki
Utsunomiya Univ.

In advanced coutries

To keep the community in the healthy state, cognitive disorder is one of the main problems for elderly people. What method we can have.

Death (in JAPAN):
Cancers, Heart diseases,
Cerebrovascular disease,
Pneumonia

QOL:
To keep QOL of elderly people, congitive disorder is a large problem.

In many developping countries

Quality healthcare delivery for poor communities around the globe.

Infection diseases are the largest cause of death.

Death:
Infection diseases, heart diseases, cancers, Cerebrovascular disease, accedents…

Problems

With many infection diseases, the condition of a patient shows rapid progress.

There need to access a medical treatment quickly.

There are some diseases as AIDS, show slow progress.

Until to bring about death, in slow progress of the state, there needs large resources.

Is there any common methods.

Yes.

With ICT, we must provide quality health care.

AI may provide quality health care.

AI can provide a large medical resources economically.

ICT+AI

To increase the number of human doctors, we need large resources and time.

ICT and AI can share a large potion of the work that now doctors share.

I like a human nurse. However, I can use AI systems to diagnose my diseases.

Now, many medical workers only control the medical equipments.

ICT+AI can share these works.

Happy Results

In all over the globe

We can access quick diagnosis and treatments about infectious diseases.

We can access enough care economically to keep QOL in very long old age.

Un-happy result

Some devices and tools are expensive, and cannot provide.

Some drags are expensive.

Majority of old people cannot keep their QOL.

They can survive in a long old age, however it is difficult to keep QOL.

Solutions?
Dreams?

We need quality of health care.

First, we must have enough quantity of health care economically.

ICT+AI may provide normal level of diagnosis and treatments economically.

In SF, there is a personal emergency medical treatment kit that enables to inject a proper drags automatically.

AED is a robot to provide a emergency proper treatment to some heart diseases.

Now & Future

We have some wearable devices that monitor the physical state.

The combination of these physical monitors and AI will find symptoms of diseases in a very first stage.

This can reduces required medical resources drastically.

Embodied Poverty: Experiences and Voices of the Poor, Sick, and Surviving

Key Questions:

- How do socioeconomic factors impact access to health services globally?
- What challenges prevent poor communities from taking care of their bodies?
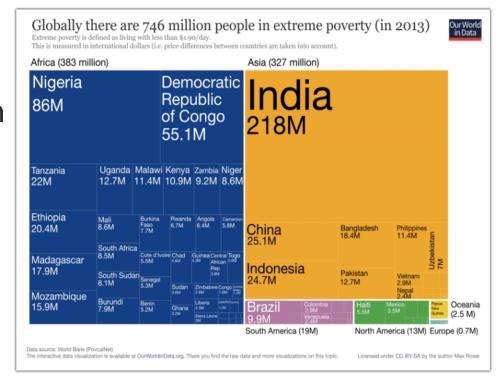

Guatemala, Peru, Morocco, Nepal, Indonesia

- Methodologies
  - Partnerships with local community organizations
  - Qualitative interviews and ethnographic research

- Project goal
  - To better understand the bodily effects of poverty and how poor communities access health services through a multi-country comparative model

Tyler D. Harvey | Thomas J. Watson Fellow | USA

Poverty and Healthcare

- Socioeconomic status remains the strongest predictor of poor health around the globe.

- Poverty causes ill health through creating environments with little shelter, clean water, and adequate sanitation.

- Health access remains a challenge for poor communities with 400 million lacking access to basic services.[1]

Globally there are 746 million people in extreme poverty (in 2013)
Extreme poverty is defined as living with less than $1.90/day.
This is measured in international dollars (i.e. price differences between countries are taken into account).

Africa (383 million) | Asia (327 million)

Nigeria 86M | Democratic Republic of Congo 55.1M | India 218M

Tanzania 22M | Uganda 12.7M | Malawi 11.4M | Kenya 10.9M | Zambia 9.2M | Niger 8.6M

Ethiopia 20.4M | Mali 8.6M | Burkina Faso 7.7M | Rwanda 6.7M | Angola 6.4M | Cameroon 5.8M | China 25.1M | Bangladesh 18.4M | Philippines 11.4M | Uzbekistan 7M

South Africa 8.5M | Cote d'Ivoire 5.5M | Chad 4.8M | Guinea 4.3M | Central African Rep. 3.8M

Madagascar 17.9M | South Sudan 8.1M | Senegal 5.3M | Togo 3.8M

Indonesia 24.7M | Pakistan 12.7M | Vietnam 2.9M | Nepal 2.4M

Mozambique 15.9M | Burundi 7.9M | Benin 5.2M | Ghana 3.2M | Sudan 3.6M | Zimbabwe 2.6M | Congo 1.6M

Brazil 9.9M | Colombia 2.9M | Venezuela 2.6M | Haiti 5.5M | Mexico 3.5M | Papua New Guinea 2.4M | Oceania (2.5 M)

South America (19M) | North America (13M) | Europe (0.7M)

Data source: World Bank (PovcalNet)
The interactive data visualization is available at OurWorldinData.org. There you find the raw data and more visualizations on this topic. Licensed under CC-BY-SA by the author Max Roser.

Models of improving health access

Western Highlands, Guatemala

- Acupuncture clinic

- Nutrition workshops

Lima, Peru

- Community health workers
- Home visits

Key Lessons

Challenges

- Access to quality, trusted care
- Poor conditions perpetuating poor diseases
- Limited services for mental health and surgical needs

Takeaways

- Opportunities to incorporate technology and innovative developments in the delivery process for poor communities

Tyler D. Harvey | Thomas J. Watson Fellow | USA