



CENTRE FOR GLOBAL
MENTAL HEALTH

CELEBRATING 10 YEARS

The future of health systems

Kenji Shibuya, MD, DrPH

Director, University Institute for Population Health

Who is Kenji?

Dropped out from med school



Who is Kenji?

Dropped out from med school

“Indifference”



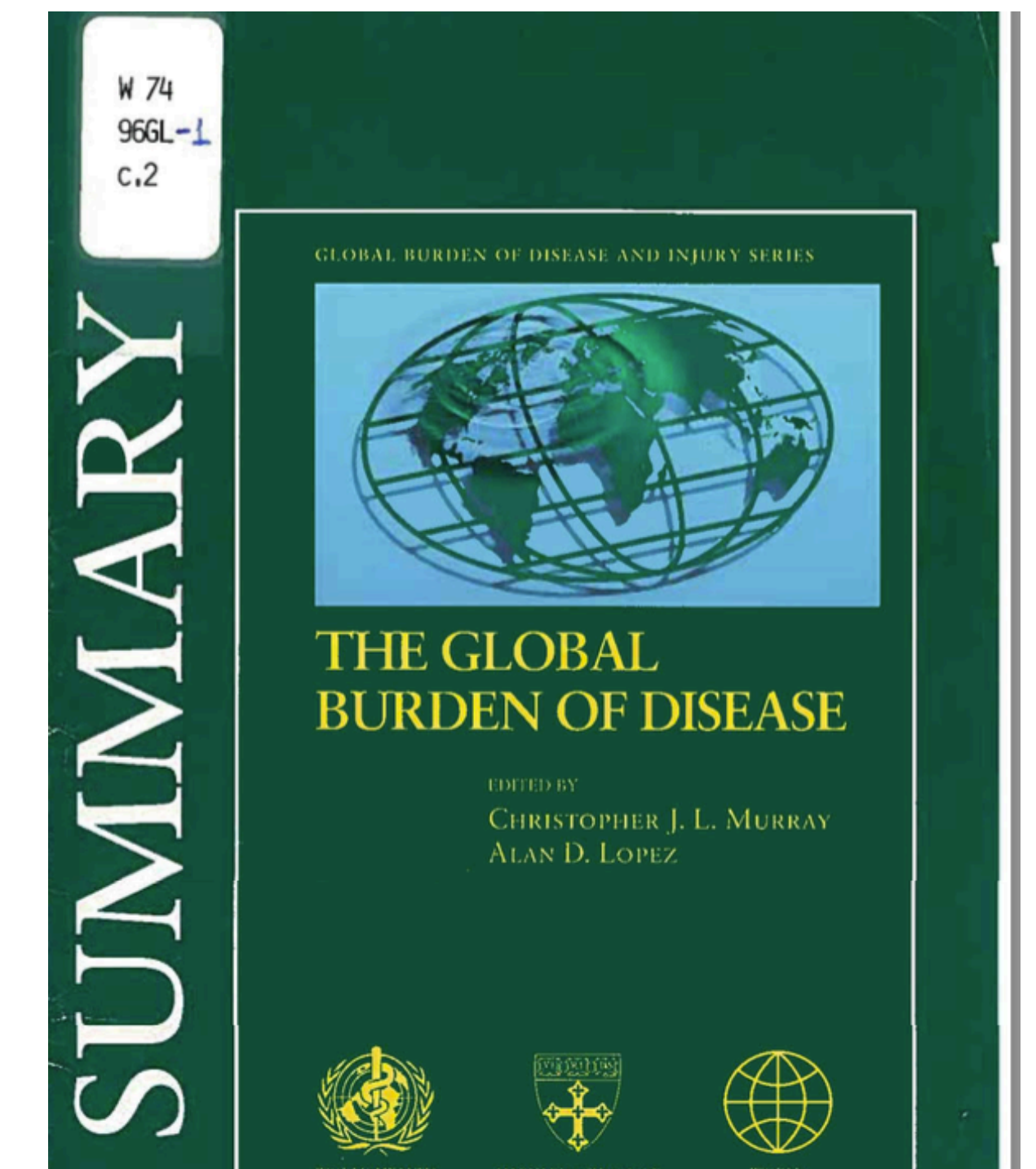
Source: Missionaries of Charity

Who is Kenji?

Dropped out from med school

MD

PhD in health economics



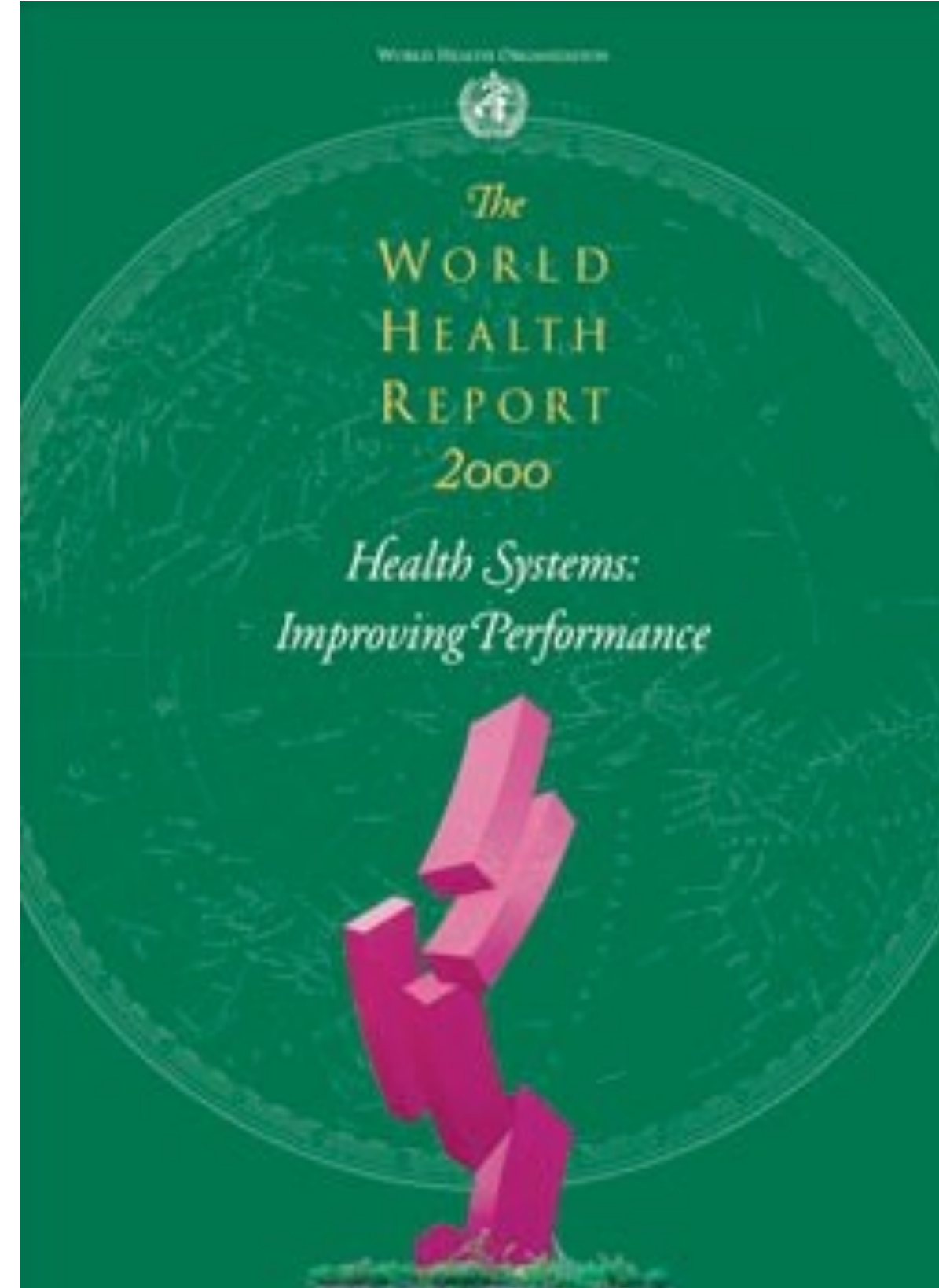
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Advisor to Health Minister



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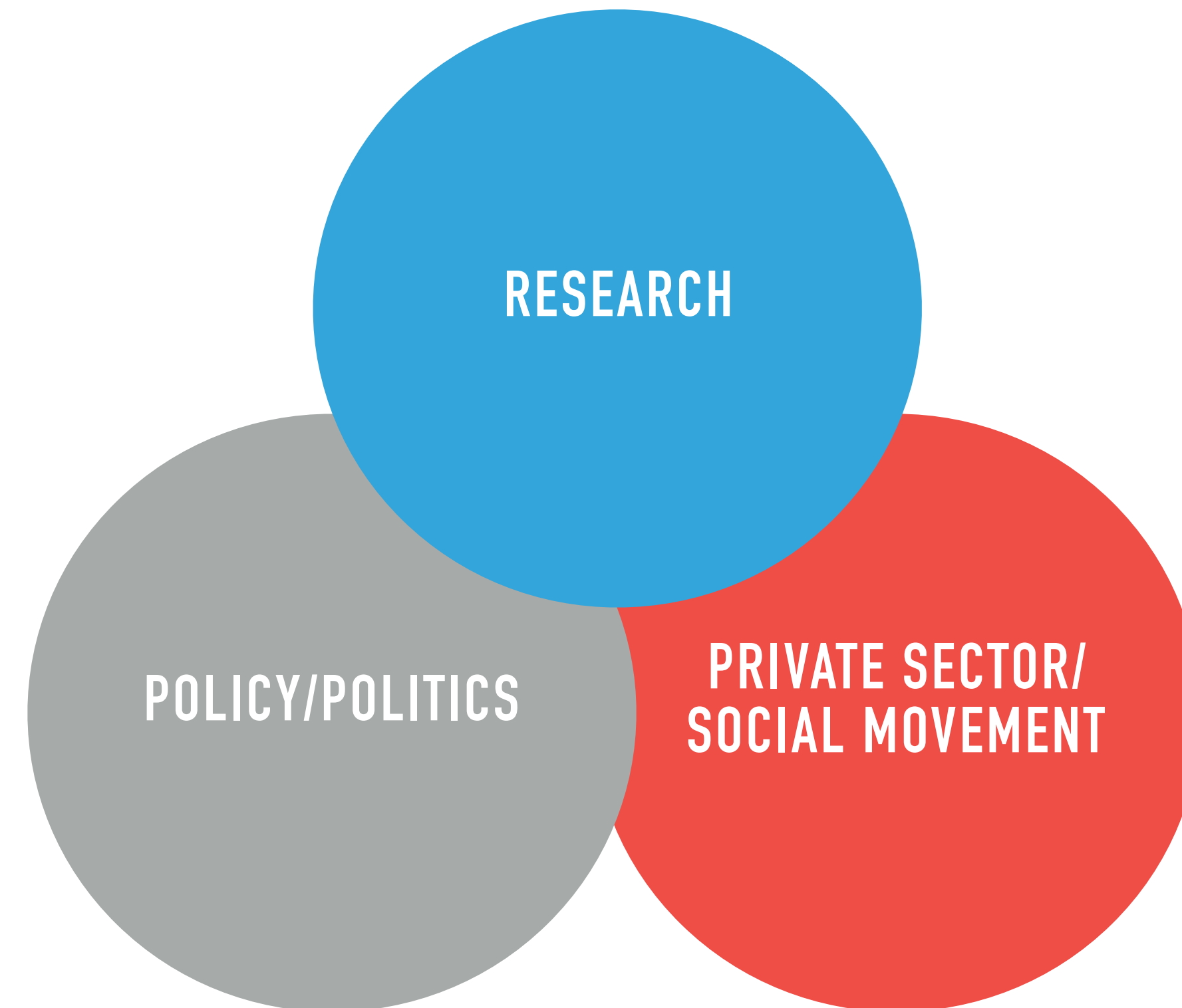
WHO policy chief

Think-tank director

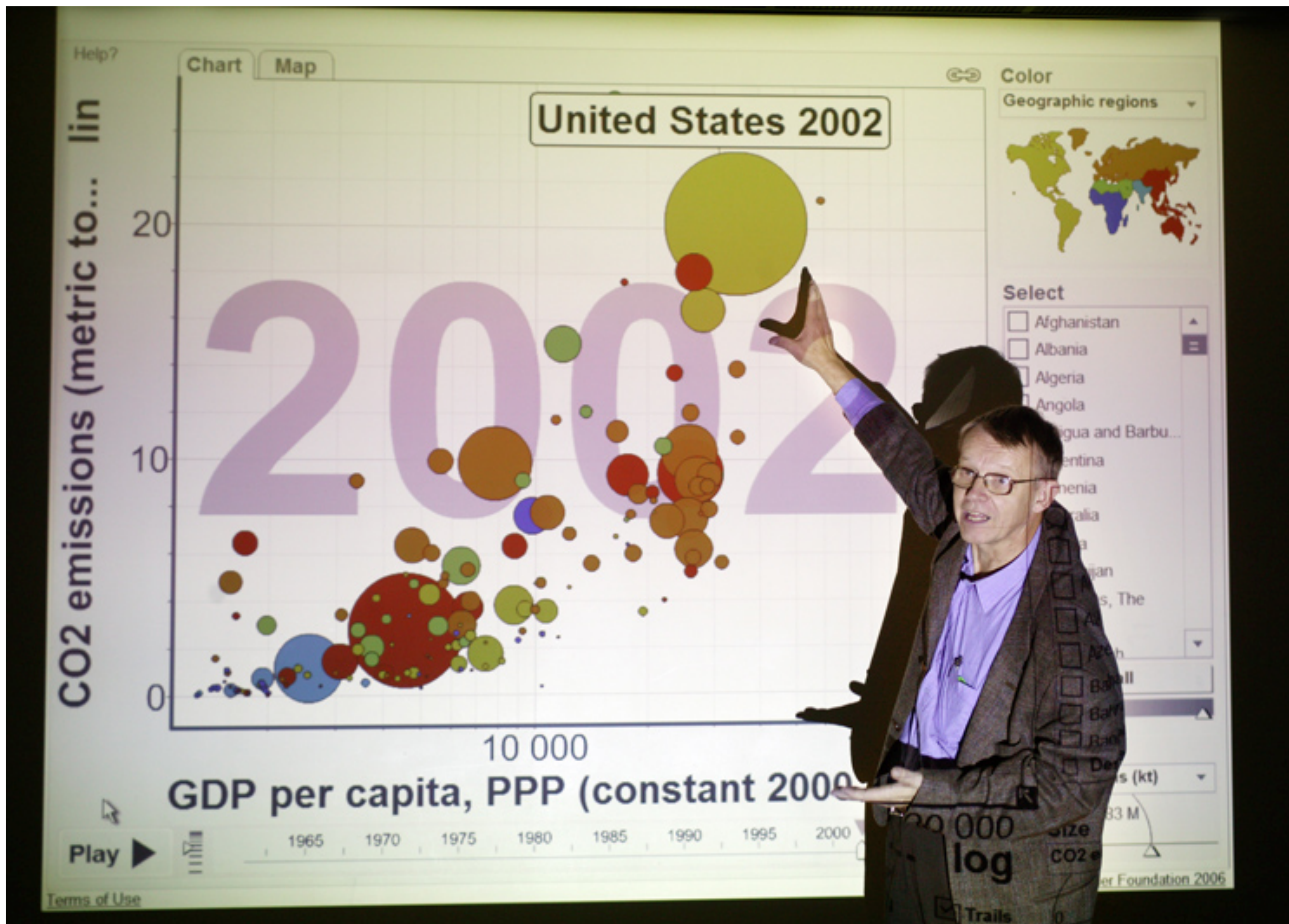
Advisor to Health Minister

Start-ups

Venture capital



A rapidly changing world



Source: Hans Rosling



“Uno dei libri più importanti che abbia mai letto. Una guida indispensabile per riflettere con chiarezza sul mondo.” — **BILL GATES**

Hans Rosling con **Ola Rosling** e
Anna Rosling Rönnlund

FACT FUL NESS

**DIECI RAGIONI
PER CUI NON CAPIAMO
IL MONDO.
E PERCHÉ LE COSE
VANNO MEGLIO
DI COME PENSIAMO**

Rizzoli

What % of adults in the world can read and write?

1. 45 %

2. 65 %

3. 85 %

What is the average life expectancy of the world's population?

- 1. 55 years**
- 2. 65 years**
- 3. 75 years**

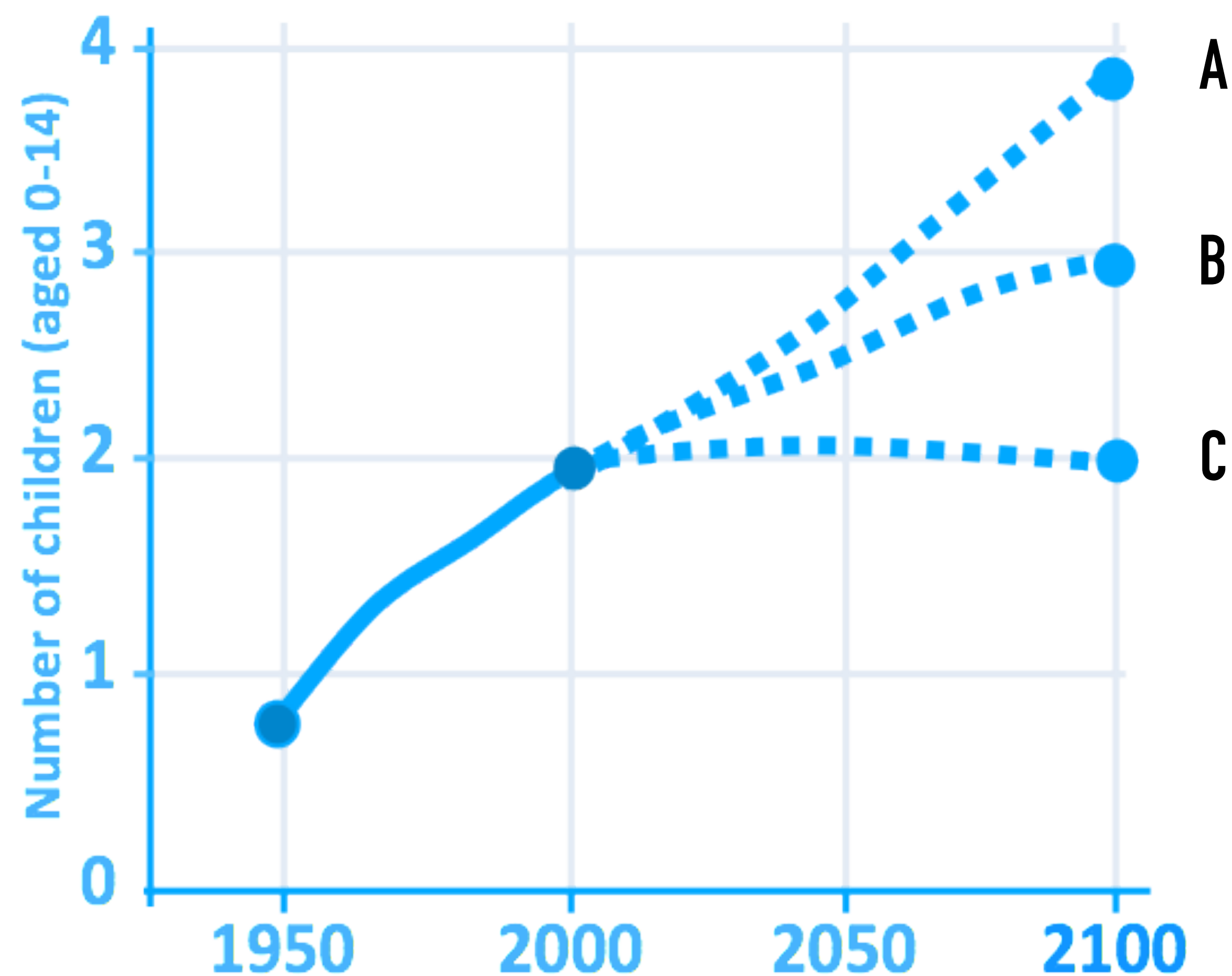
What % of 1-year old in the world are vaccinated against measles?

1. 25 %

2. 55 %

3. 85 %

How many children does the UN estimate there will be globally by the year 2100?



(Source: UN Population Division)

What % of adults in the world can read and write?

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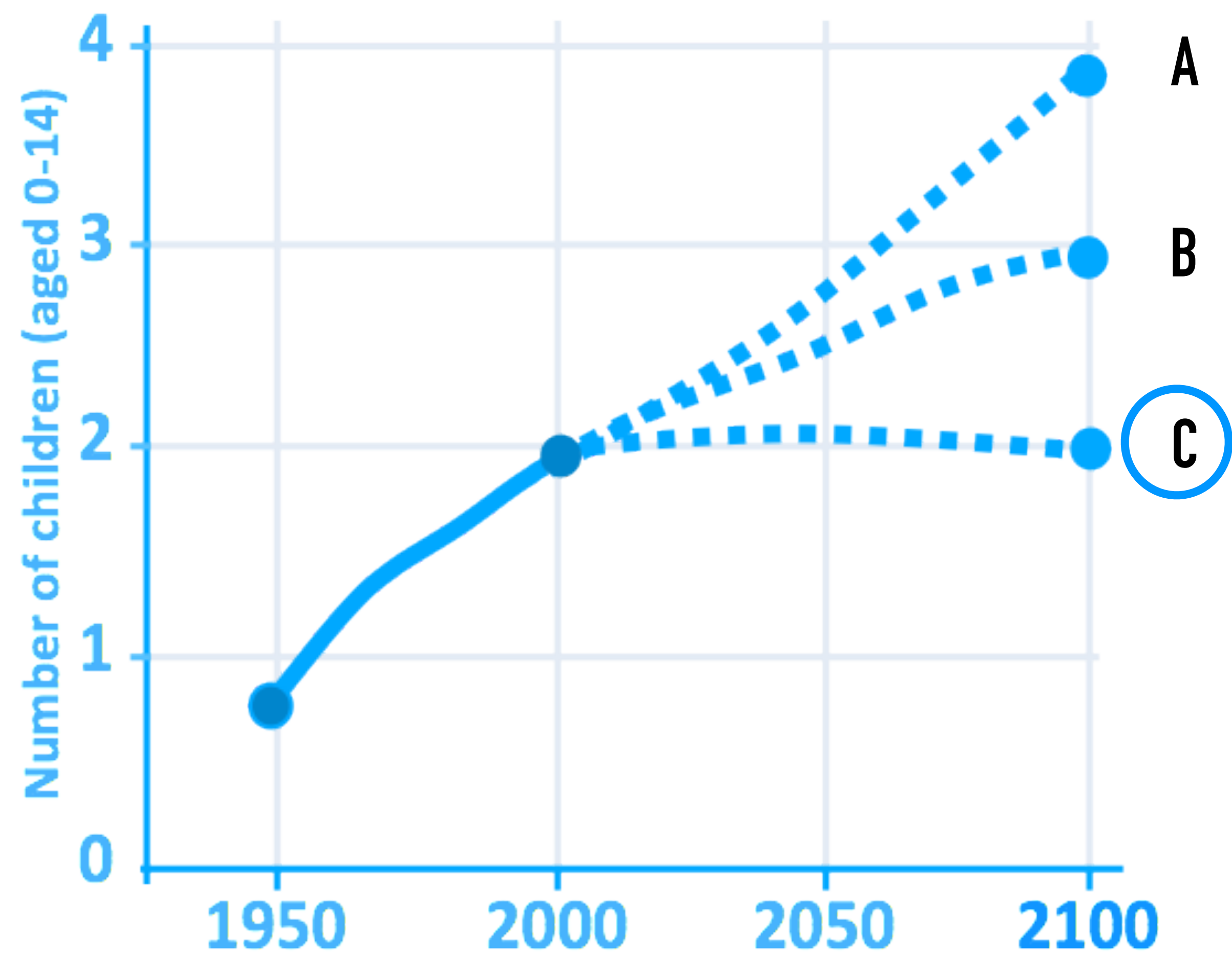
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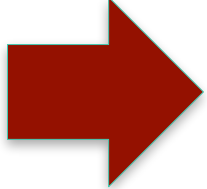
3. 85 %

How many children does the UN estimate there will be globally by the year 2100?

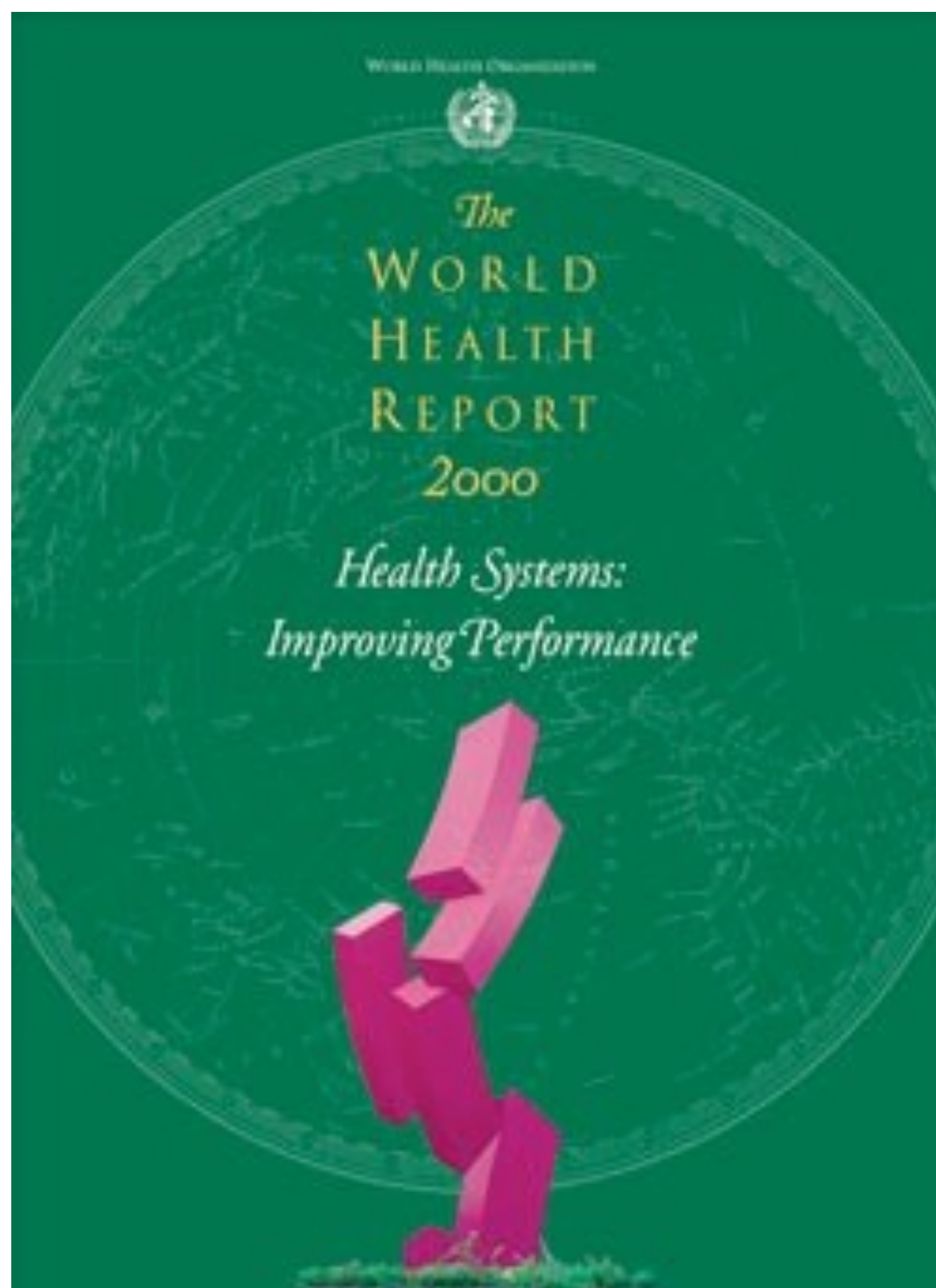


(Source: UN Population Division)

Outline

- 
- 1. From health care to social system**
 - 2. Local-global interactions**
 - 3. Towards the future of health systems**

Japanese health system as No 1



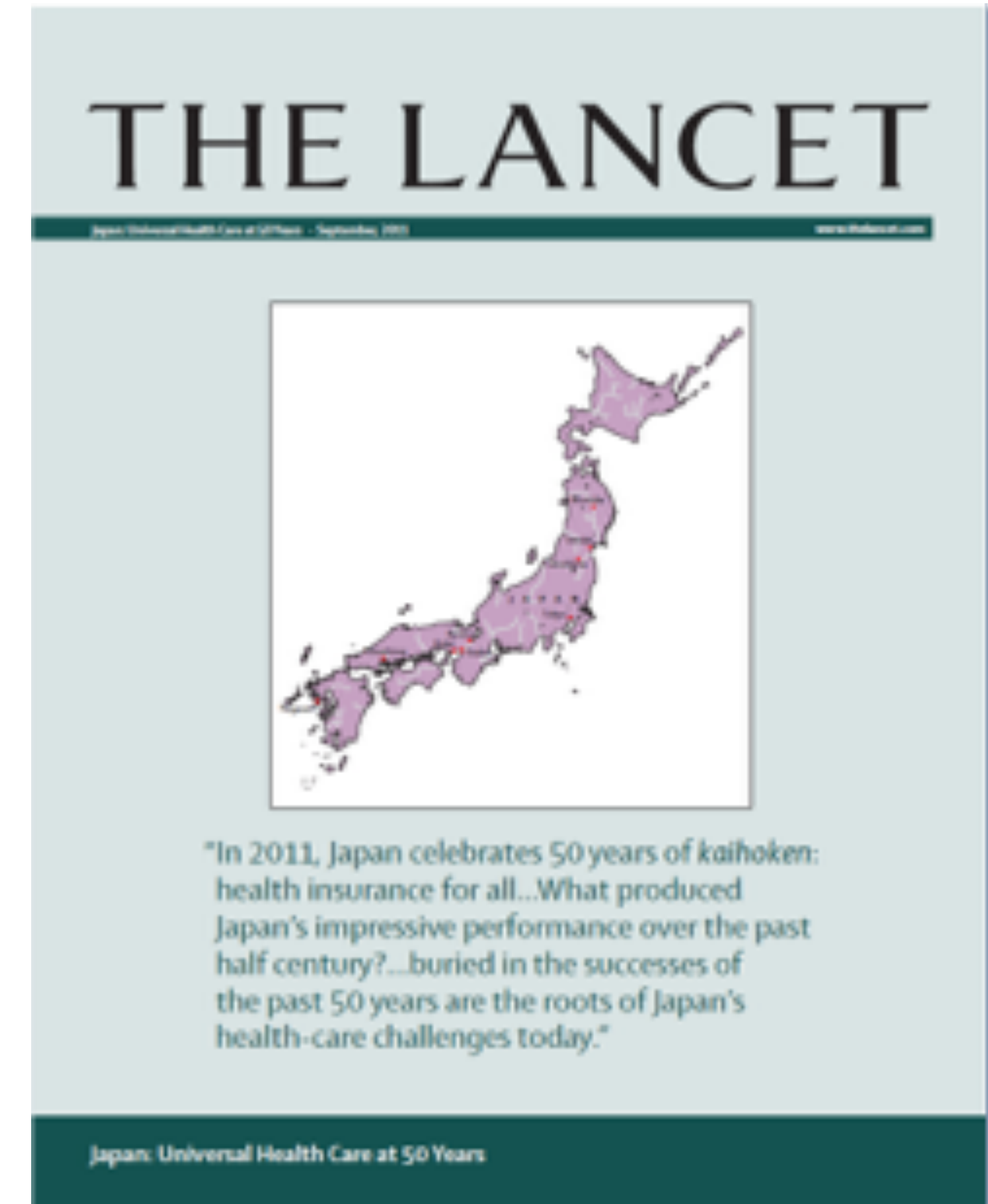
Source: WHO 2000

Annex Table 9 Overall health system attainment in all Member States, WHO index, estimates for 1997

Rank	Uncertainty interval	Member State	Index	Uncertainty interval
1	1	Japan	93.4	92.6 – 94.3
2	2 – 8	Switzerland	92.2	91.2 – 93.3
3	2 – 6	Norway	92.2	91.4 – 93.1
4	2 – 11	Sweden	92.0	91.1 – 93.0
5	2 – 11	Luxembourg	92.0	91.0 – 93.0
6	3 – 11	France	91.9	91.0 – 92.9
7	4 – 14	Canada	91.7	90.8 – 92.6
8	4 – 15	Netherlands	91.6	90.7 – 92.5
9	6 – 13	United Kingdom	91.6	90.9 – 92.3
10	6 – 18	Austria	91.5	90.5 – 92.4
11	7 – 21	Italy	91.4	90.5 – 92.2
12	7 – 19	Australia	91.3	90.4 – 92.2
13	7 – 18	Belgium	91.3	90.2 – 92.3
14	8 – 20	Germany	91.3	90.4 – 92.2
15	7 – 24	United States of America	91.1	89.9 – 92.3
16	10 – 23	Iceland	91.0	90.0 – 92.1
17	9 – 23	Andorra	91.0	90.1 – 92.0
18	9 – 23	Monaco	91.0	90.0 – 92.0
19	12 – 23	Spain	91.0	90.1 – 91.8
20	13 – 24	Denmark	90.9	90.0 – 91.8

“Japan: a mirror for our future”

“The success of Japan’s health system matters not only because of its importance to Japanese citizens, but also because Japan is a barometer of western health.” – Richard Horton

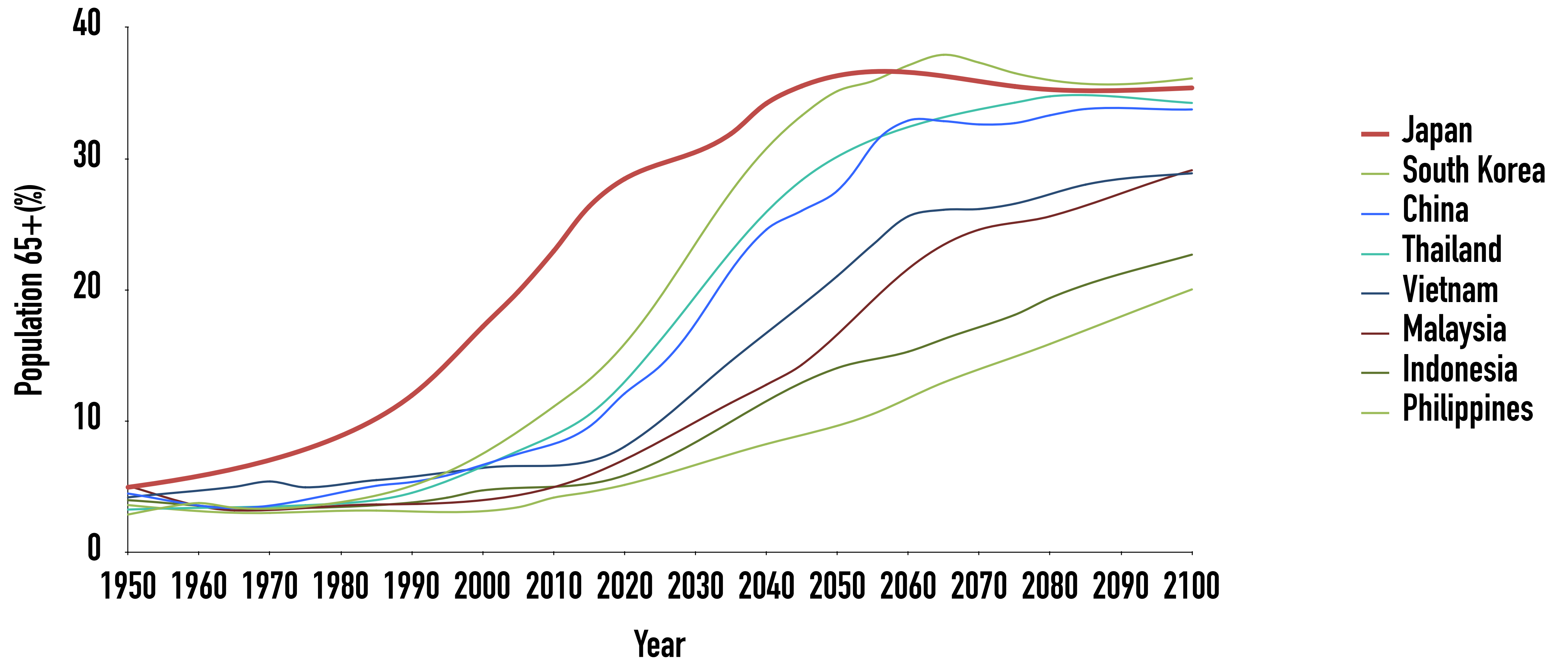


Four tsunamis in health systems

1. **Population ageing**
2. **Chronic diseases**
3. **Explosion of health technologies**
4. **Globalization**

Source: Tedros Adhanom/Suwit Wibulpolprasert

% population 65+ : 1950-2100



Source : United Nations, Department of Economic and Social Affairs, Population Division (2015a) World Population Prospects: The 2015 Revision

“The incredible shrinking country”



Source: The Economist. March 25, 2014

Stagnated healthy life expectancy and widening gaps in Japanese population

Articles



Population health and regional variations of disease burden in Japan, 1990–2015: a systematic subnational analysis for the Global Burden of Disease Study 2015



Shuhei Nomura, Haruka Sakamoto, Scott Glenn, Yusuke Tsugawa, Sarah K Abe, Md M Rahman, Jonathan C Brown*, Satoshi Ezoe*, Christina Fitzmaurice*, Tsuyoshi Inokuchi*, Nicholas J Kassebaum*, Norito Kawakami*, Yosuke Kita, Naoki Kondo*, Stephen S Lim*, Satoshi Maruyama*, Hiroaki Miyata*, Meghan D Mooney*, Mohsen Naghavi*, Tomoko Onoda*, Erika Ota*, Yuji Otake*, Gregory A Roth*, Eiko Saito*, Takahiro Tabuchi*, Yohsuke Takasaki*, Tadayuki Tanimura*, Manami Uechi*, Theo Vos*, Haidong Wang*, Manami Inoue, Christopher J L Murray, Kenji Shibuya†

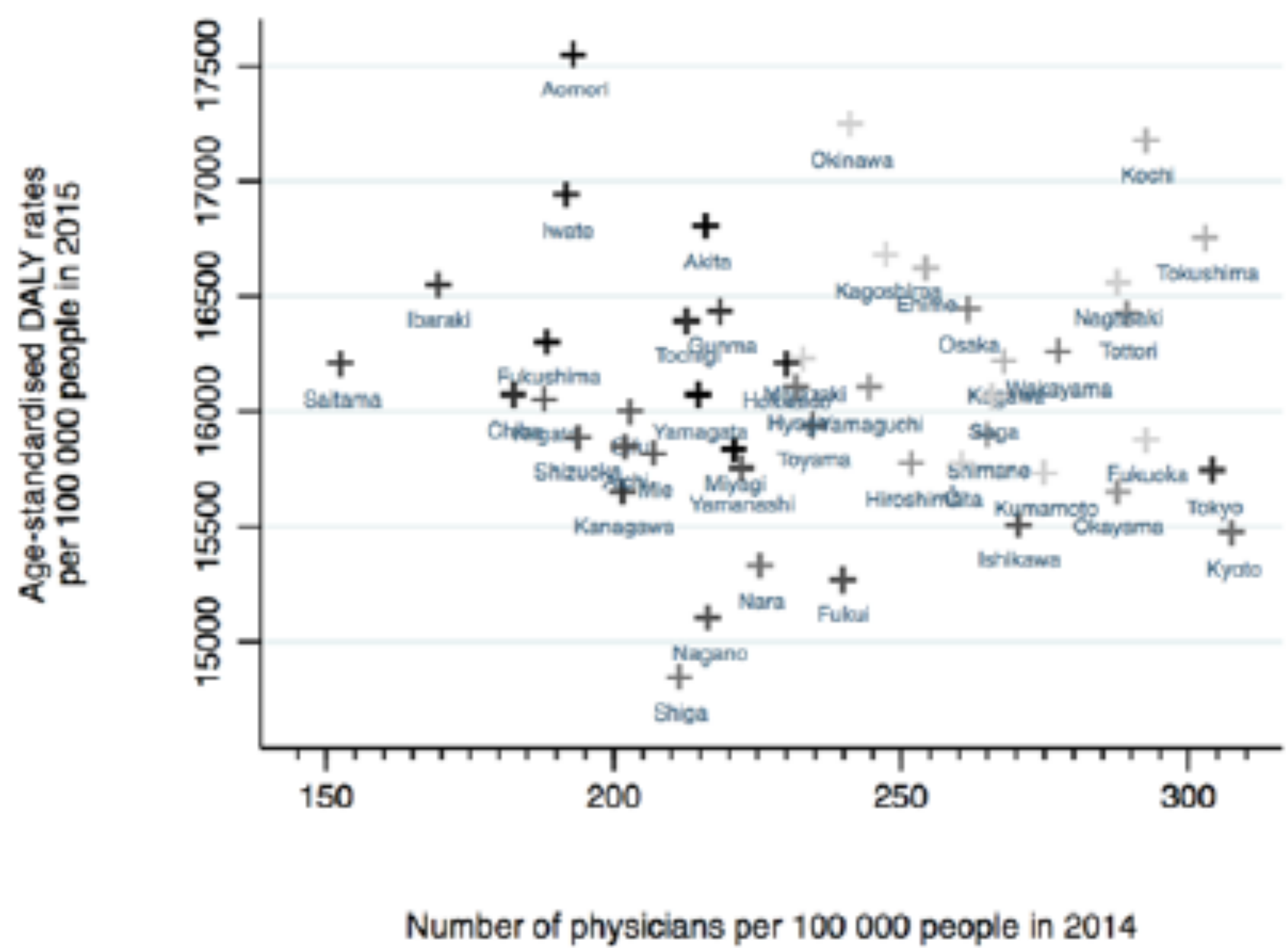
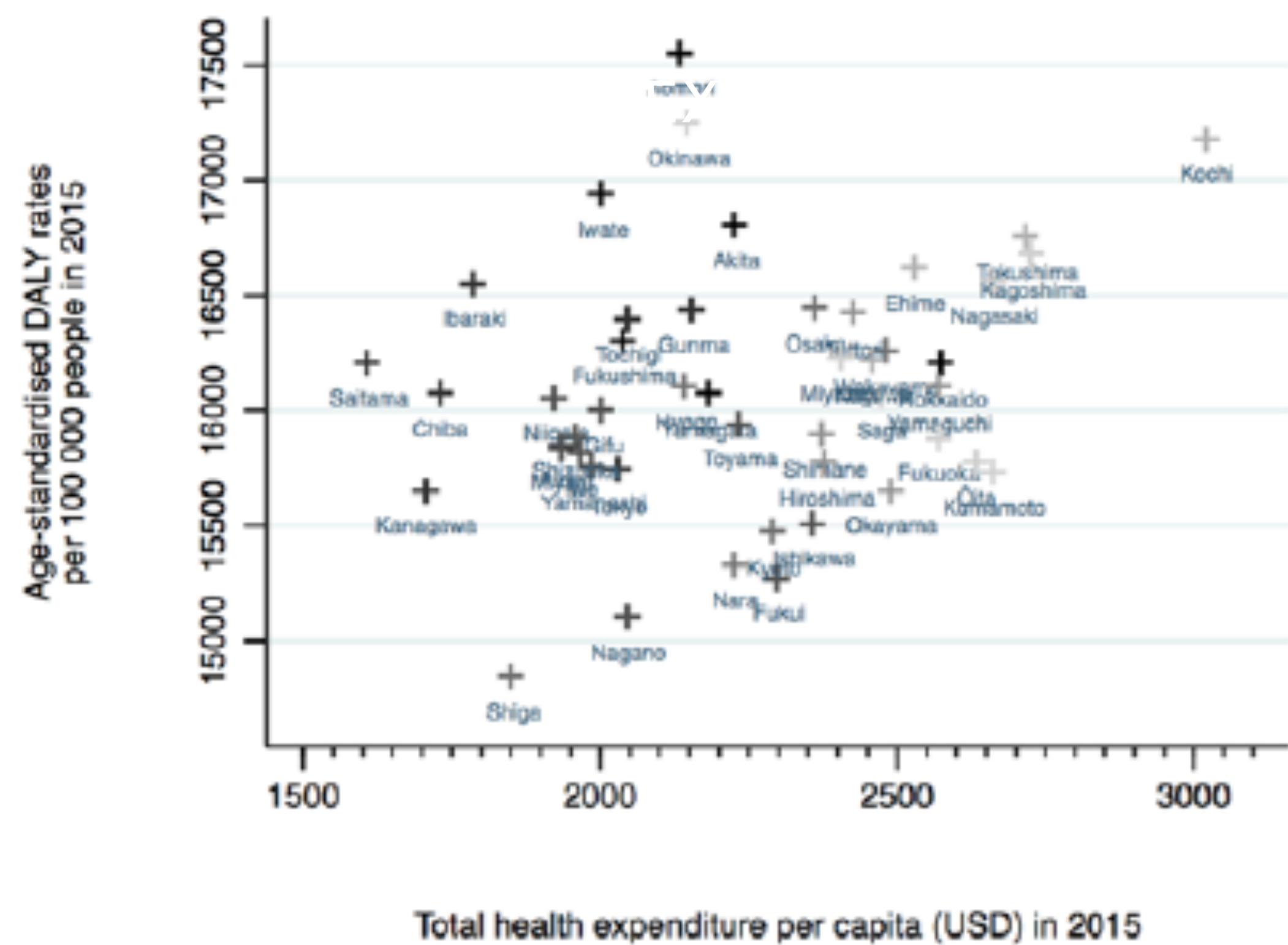


Summary

Background Japan has entered the era of super-ageing and advanced health transition, which is increasingly putting pressure on the sustainability of its health system. The level and pace of this health transition might vary across

Published Online
July 19, 2017

No correlation between inputs and health outcomes



Source: Nomura et al. 2017



Japan 2035

Leading the World
through Health

Japan Vision: Health Care 2035

Key issues: redefining health care as a “social system”



Grand convergence in population health policy, research and practice

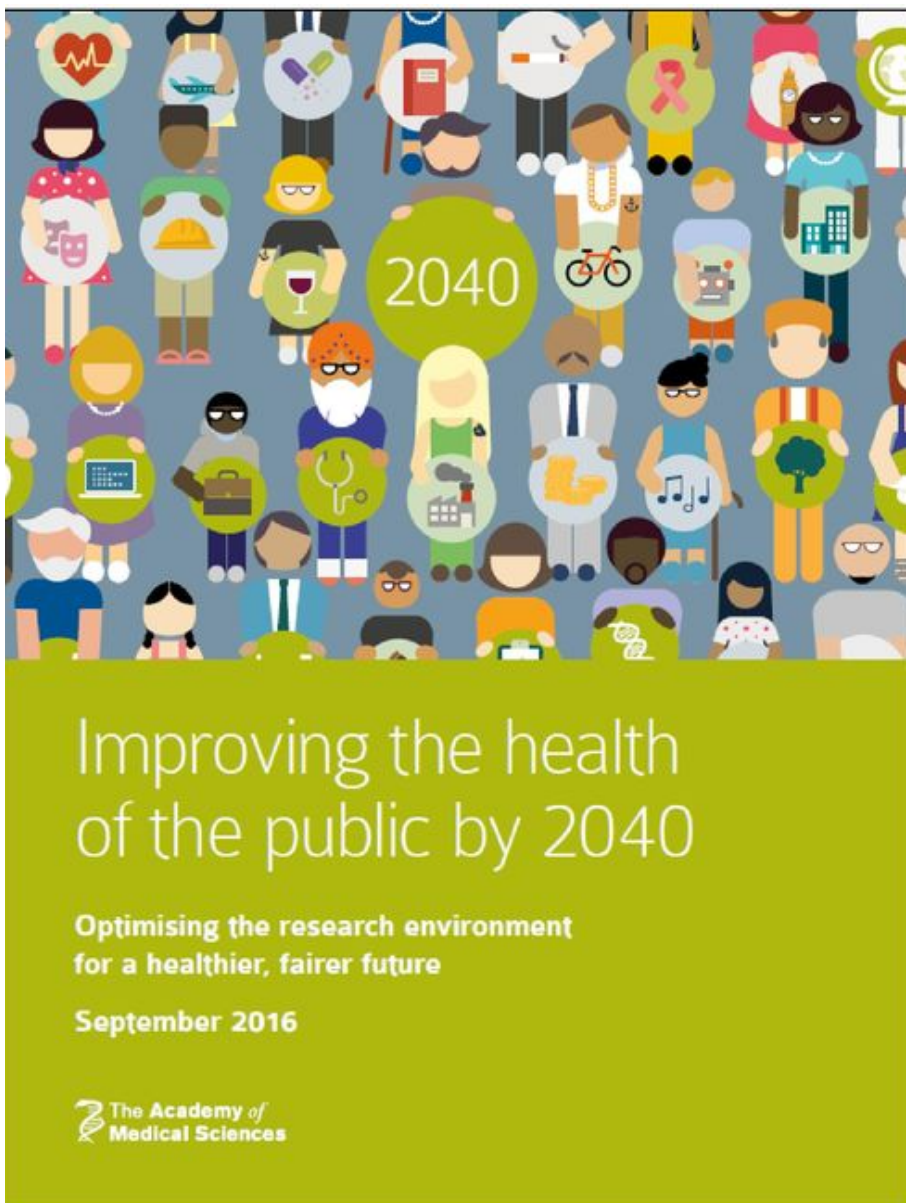
Health Care 2035: Japan Vision



The current health care system must be rebuilt as a new sort of “social system.”

A paradigm shift is needed from public health to health of the public.

Improving the Health of the Public by 2040

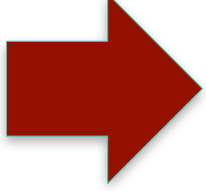


Five supporting ambitions

Environments	Empowerment	Values	Sustainability	Resilience
All elements of the UK environment support healthy living for everybody.	People are empowered to actively contribute to their own and other people's health.	All sectors of society value health and health equity, and they are indicators of societal success.	Improvements to UK health are gained in ways that are economically, environmentally and socially sustainable.	The UK has developed resilience to potential health crises and is a major contributor to global health security.

VISION			Key concepts for health care in 2035
LEAN HEALTHCARE	1	LIFE DESIGN	2
Implement value-based health care		Empower society and support personal choice	
		GLOBAL HEALTH LEADER	3
		Lead and contribute to global health	

Outline

1. From health care to social system
-  2. Local-global interactions
3. Towards the future of health systems



Harvard College admits 2,037 to Class of 2020

Since launching Harvard Financial Aid Initiative in 2005,
nearly \$1.5 billion in financial aid awarded

[READ MORE](#)

"Global health is the future of medicine."



Dr. Tachi Yamada

Source: www.seattle.us.emb-japan.go.jp/itpr_en/00_000563.html

Integrating global health into domestic health policy

Prime Minister Abe's commentary in The Lancet

Japan's vision for a peaceful and healthier world

Health is fundamentally a global issue. Recent outbreaks of Ebola virus disease and Middle East respiratory syndrome have reminded us that global health issues require collective action. The world must unite and countries must establish resilient and sustainable health systems, ensuring that each individual is secure and receives the highest attainable standard of health. Japan has been a longstanding advocate of human security¹ and has taken concrete action on the ground in support of this principle. Human security protects the vital core of all human lives in a way that enhances freedom, fulfilment, and capabilities^{1,2} and underlies Japan's policy of Proactive Contribution to Peace. Japan regards health as an indispensable element of human security.¹

In September, 2015, the United Nations General Assembly adopted the 2030 agenda for sustainable development which includes universal health coverage

First, in preparation for the G7 Summit, we will discuss how to address the challenges of public health emergencies. The existing global health architecture must be restructured to ensure prompt and effective responses to public health emergencies. Public and private partners, government, and civil society—at global, regional, country, and community levels—should reach agreement on their respective roles in advance of emergencies. Japan expects WHO to have the lead role in prompt detection and containment, especially in the early stages of a public health emergency, while acknowledging WHO's need for further reform and capacity strengthening. Japan is ready to support this reform process, including the launch of the Contingency Fund for Emergencies.⁶ Japan also fully supports the efforts of the World Bank's Pandemic Emergency Facility, and calls for coordination between WHO and the World



Source: Abe S. Lancet 2015;386:2367–69

“Japan's global health priorities are to construct a global health architecture that can respond to public health crises.”

“Japan is pioneering the response to the challenge of ageing by extending healthy life expectancy while maintaining a sustainable health system. Japan will contribute further to UHC.”

“Japan is all the more responsible for addressing the threat of antimicrobial resistance as countries develop their own national action plans.”

G7 Ise-Shima Summit, May 2016



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Beyond UHC: systems, local-global, multi-disciplinary, human security,,,

Series

Japan: Universal Health Care at 50 Years 6

Future of Japan's system of good health at low cost with equity: beyond universal coverage

Kenji Shibuya, Hideki Hashimoto, Naoki Ikegami, Akihiro Nishi, Tetsuya Tanimoto, Hiroaki Miyata, Keizo Takem, Michael R Reich

Japan's premier health accomplishment in the past 50 years has been the achievement of good population health at low cost and increased equity between different population groups. The development of Japan's policies for universal coverage are similar to the policy debates that many countries are having in their own contexts. The financial sustainability of Japan's universal coverage is under threat from demographic, economic, and political factors. Furthermore, a series of crises—both natural and nuclear—after the magnitude 9·0 Great East Japan Earthquake on March 11, 2011, has shaken up the entire Japanese social system that was developed and built after World War 2, and shown existing structural problems in the Japanese health system. Here, we propose four major reforms to assure the sustainability and equity of Japan's health accomplishments in the past 50 years—implement a human-security value-based reform; redefine the role of the central and local governments; improve the quality of health care; and commit to global health. Now is the time for rebirth of Japan and its health system.

Introduction

The global health community is quickening its efforts aimed at ensuring health coverage for all.^{1,2} The 58th session of the World Health Assembly in 2005 endorsed a resolution, urging its member countries to work towards sustainable health financing, defining universal health coverage as access for all to appropriate health services at an affordable cost. The World Health Assembly also urged countries to strive for the achievement of universal coverage by using, in accord with their specific contexts, a mix of prepayment systems that include tax-based financing and social health insurance.³ In the past decade, low-income countries such as Ghana and Rwanda have introduced national health insurance schemes designed to achieve universal coverage at an affordable cost.^{4,5}

The definition of universal coverage is still debated, but generally it is access to key promotive, preventive, curative,

and rehabilitative health interventions for all at an affordable cost. The principle of financial risk protection ensures that the cost of care does not put people at risk of financial catastrophe.^{6,7} The social health insurance approach allows the gradual expansion of the population covered and solidarity among the individuals enrolled in each plan.⁸ Japan achieved universal health insurance coverage in 1961 when virtually the entire population became covered by plans for social health insurance.⁹

Achievement of universal coverage is, however, not an end, but the beginning of new challenges. Universal

Key messages

- Although Japan achieved universal coverage in 1961 and other health-care policies and programmes have led to excellent population health at low cost with equity, the nation now has many challenges.
- Three common challenges to the health system of Japan—economic sustainability, political governance, and responsiveness to patients—were identified in the other reports in this Lancet Series.
- The Great East Japan Earthquake in March, 2011, showed the underlying structural problems in the health system but made the three challenges much more difficult to resolve fiscally.
- To address these challenges, we propose four major reforms for Japan's health-care system: implement human-security value-based reform; redefine the role of the central and local governments; improve the quality of health care; and commit to global health.
- There are promising signs that Japan will be able to achieve both structural health reform and disaster reconstruction. This domestic experience could be the basis for Japan to take an increased proactive role in promoting global health.

Search strategy and selection criteria

We searched PubMed, Medline, Embase, Jamas, and Jstor databases, government reports, and unpublished literature from domestic sources. Once a source was identified, it was used to generate additional material (eg, by searching the reference lists of reports obtained while using this search strategy). The first section of this work is based on the earlier reports in this Lancet Series in which health and its associated factors are assessed in Japan 50 years after the introduction of universal health care coverage in the country. To discuss the effects of the Great East Japan Earthquake and the accident at the Fukushima nuclear power plant that followed, we used reports identified and retrieved using the above-mentioned method and documents issued by the International Atomic Energy Agency, Japanese Government, and other sources including those produced by the domestic media.

Lancet 2011; 378: 1265–73

Published Online
September 1, 2011

DOI:10.1016/S0140-6736(11)60098-2

See Comment page 1206

See Comment Lancet 2011; 378: 1051

See Series Lancet 2011; 378: 1094, 1106, 1124, and 1183

See Online Comment
DOI:10.1016/S0140-6736(11)61148-3 and
DOI:10.1016/S0140-6736(11)60800-9

This is the sixth in a Series of six papers about Japan's universal health care at 50 years

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www.thelancet.com Vol 378 October 1, 2011

1265

Health Policy

Protecting human security: proposals for the G7 Ise-Shima Summit in Japan

Japan Global Health Working Group*

In today's highly globalised world, protecting human security is a core challenge for political leaders who are simultaneously dealing with terrorism, refugee and migration crises, disease epidemics, and climate change. Promoting universal health coverage (UHC) will help prevent another disease outbreak similar to the recent Ebola outbreak in west Africa, and create robust health systems, capable of withstanding future shocks. Robust health systems, in turn, are the prerequisites for achieving UHC. We propose three areas for global health action by the G7 countries at their meeting in Japan in May, 2016, to protect human security around the world: restructuring of the global health architecture so that it enables preparedness and responses to health emergencies; development of platforms to share best practices and harness shared learning about the resilience and sustainability of health systems; and strengthening of coordination and financing for research and development and system innovations for global health security. Rather than creating new funding or organisations, global leaders should reorganise current financing structures and institutions so that they work more effectively and efficiently. By making smart investments, countries will improve their capacity to monitor, track, review, and assess health system performance and accountability, and thereby be better prepared for future global health shocks.

Introduction

In 2015, human security emerged as a core global challenge. Disease epidemics, terrorism, refugee and migration crises, and climate change had consequences that were felt around the world. These events showed the fundamental weaknesses in key global health functions that require collective action, such as the management of cross-border externalities (eg, Ebola virus disease outbreaks), the provision of global public goods (eg, Ebola virus vaccines),¹ and effective leadership and stewardship of global systems.^{2,3} The challenges of 2015 showed that national and global health systems and governance are in urgent need of reform and reinforcement.^{4,5}

Last year was also a major turning point in global health policy. The UN General Assembly adopted the 2030 Agenda for Sustainable Development and Sustainable Development Goals (SDGs), emphasising universality, sustainability, and cross-sector global partnerships. The scope of health challenges has expanded from infectious diseases and child and maternal health, outlined in the 2000 Millennium Development Goals (MDGs), to include non-communicable diseases (NCDs) as a result of demographic and epidemiological transitions.⁶ The focus of global health policy has expanded beyond disease-specific programmes to embrace health systems strengthening (HSS), universal health coverage (UHC), and its sustainability.⁷

In May, 2016, Japan will host the G7 Summit for the first time since 2008. The summit is being held in the era of SDGs and in the aftermath of the Ebola crisis, so it offers a key opportunity to advance the global health agenda. The G7 can identify shared actions that will strengthen health systems at global, regional, and national levels, and use the summit to enhance global health cooperation. Japan has emphasised the value of

global health and rallied countries to new initiatives at past summits it has hosted. At the 2000 Kyushu-Okinawa Summit, Japan championed the establishment of the Global Fund to Fight AIDS, Tuberculosis and Malaria. In 2008, Japan's leadership at the Hokkaido-Toyako Summit brought greater global attention to the key roles of health financing, health workforce, and health information in health systems.⁸

Japan will renew its commitment to global health at the 2016 G7 Summit, aiming for G7 countries and partners to address the collective challenges the world faces with effective and equitable responses.⁹ Since October, 2014, the interdisciplinary, multi-stakeholder Japan Global Health Working Group convened to guide summit talks on global health and human security. Here we review challenges and propose actions in global health for the upcoming G7 Summit in Japan. We first discuss human security, a core concept of Japanese foreign policy, and show how UHC contributes to human security and facilitates progress towards the SDGs. We then identify key contemporary global health challenges, using Japan's experiences as examples. We conclude with recommendations for the 2016 Ise-Shima G7 Summit.

Human security and UHC in the SDG era

The core of Japan's foreign policy is a deep commitment to a "proactive contribution to peace" standing on the concept of "human security".¹⁰ Human security protects the vital core of all human lives in a way that enhances human freedoms, fulfilment, and capabilities.^{11,12} It complements national security by focusing on individual and community security, and is achieved by protecting people from crucial and pervasive threats and developing capacity to cope with difficult situations. Women and children are especially affected by human security threats such as armed conflicts. Japan's Prime Minister

Lancet 2016; 387: 2155–62

See Editorial page 2063

*Members listed at the end of the report

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Outline

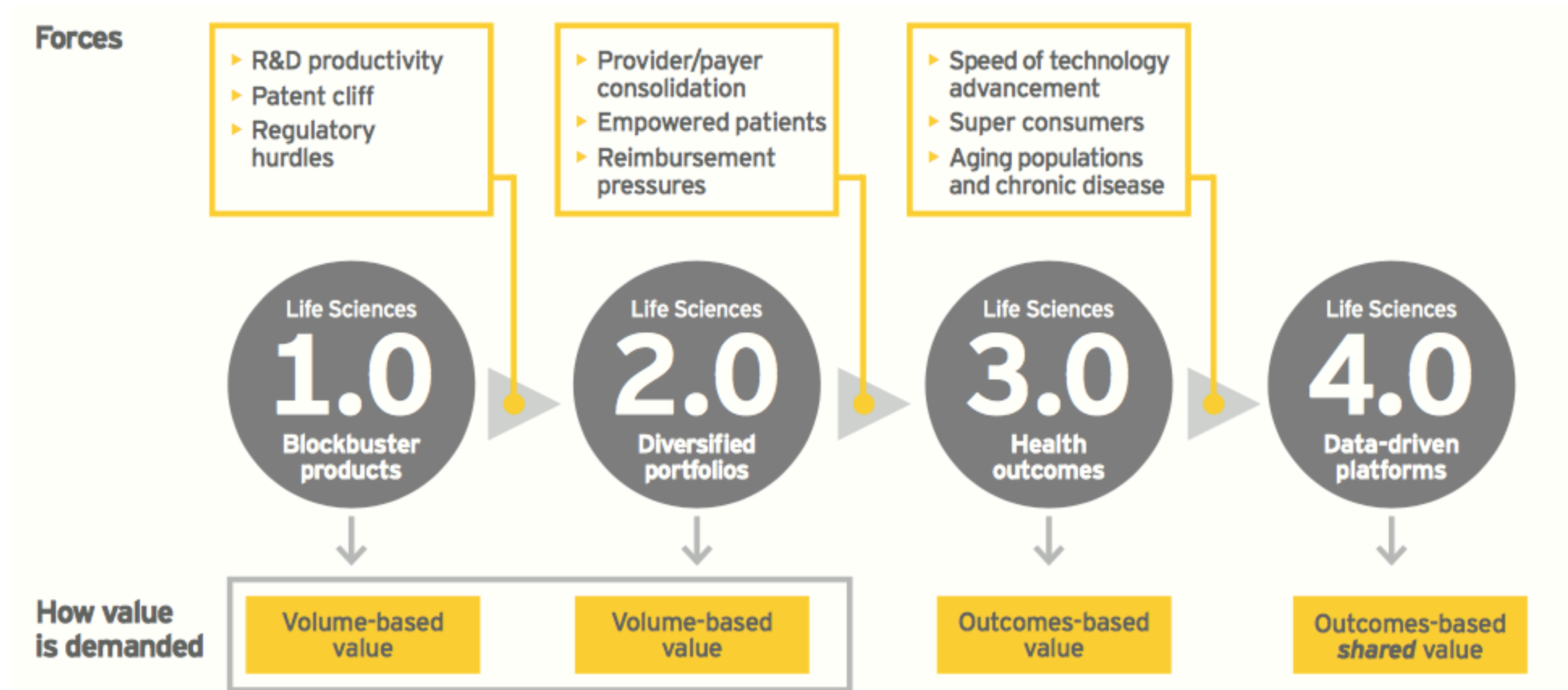
1. From health care to social system

2. Local-global interactions

 **3. Towards the future of health systems**

A system transformation

Transforming life sciences



Source: EYGM Life Science 4.0 <https://assets.ey.com/content/dam/ey-sites/ey-com/global/topics/digital/ey-when-the-human-body-is-the-biggest-data-platform-who-will-capture-value.pdf>

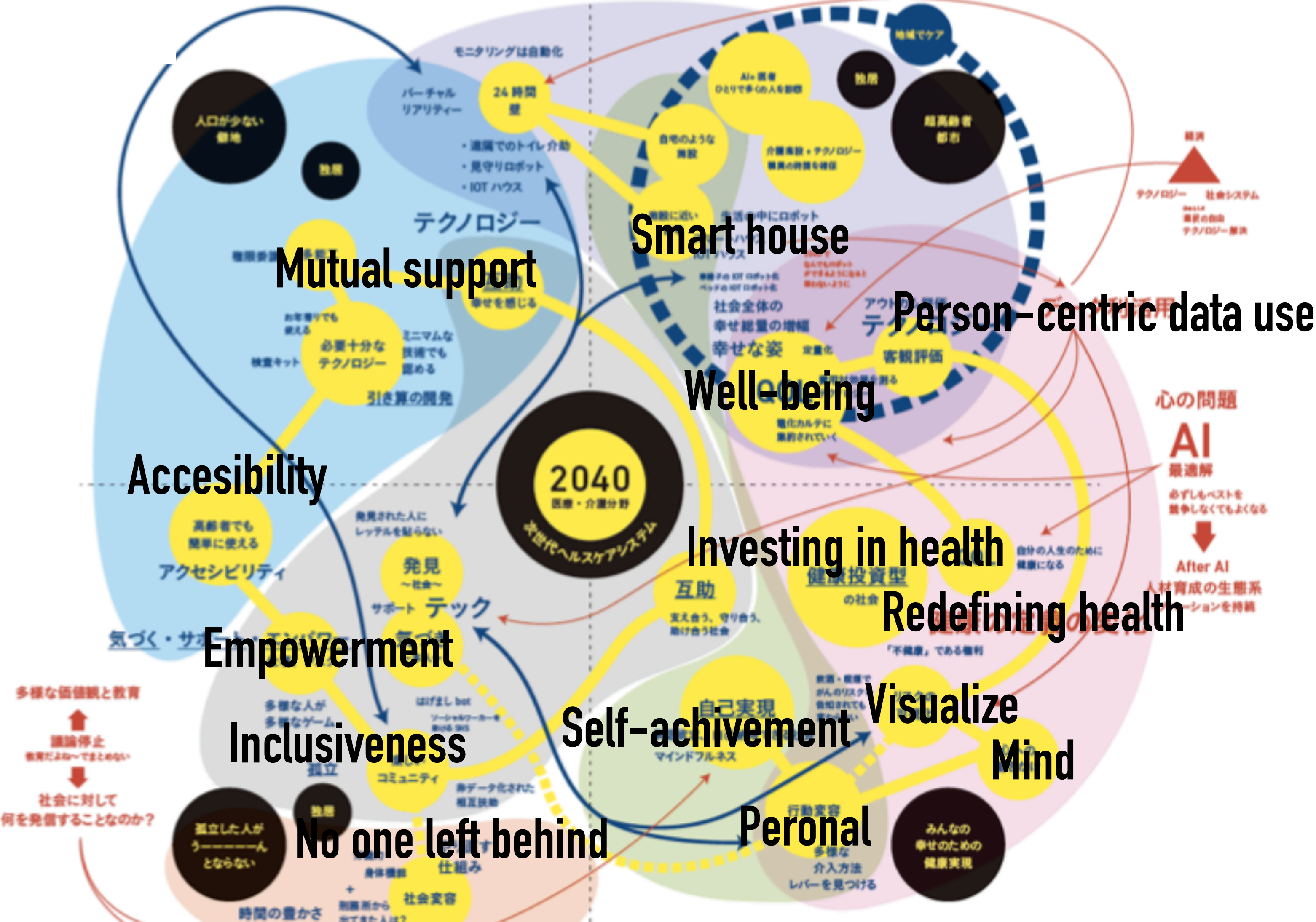
Transformative education for health care professionals (2011)



Source: Frenk, Chen et al. Lancet 2011

	1900	2000	
	Science-based	Problem-based	System-based
Instructional	Scientific curriculum	Problem-based learning	<ul style="list-style-type: none">Competency-drivenLocal-global
Institutional	Universities	Academic centers	Health systems

Joint Ministerial Committee on Future Health organized by the Mistry of Health, Labour and Welfare and the Ministry of International Trade and Industry



Source: https://www.meti.go.jp/shingikai/mono_info_service/mirai_innovation/pdf/ct_zentai_201903.pdf

1961

UHC (Japan)

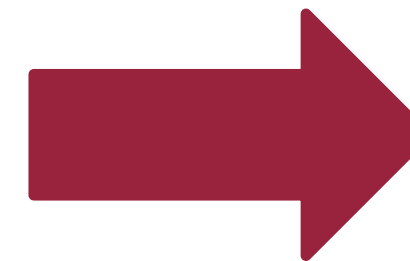


Source: www.thelancet.com/series/japan

Apollo program
(USA)



Source: www.apollo-13.com/moonshot.html



2018

Amazon-
Berkshire-
JPM health
(USA)



Source: qz.com/1192693/amazon-jp-morgan-and-berkshire-hathaway-are-starting-a-healthcare-company/

Space X
(USA)



Source: thenewsrecorder.com/news/space/spacex-will-build-new-next-gen-mars-bound-falcon-rocket-los-angeles-35727.html





Source: <https://orange-operation.jp/posrejihikaku/self-checkout/10331.html>



Source: <https://medium.com/@maciejkranz/ai-is-the-brain-iot-is-the-body-85af8f36fc55>

System innovations across the globe

India: Home-based care x Uber





Source: www.portea.com

**United States:
Integrated community care x task shifting**



Source : www.iorahealth.com

AMPATH (Kenya)



OUR WORK OUR STORY GET INVOLVED NEWS CONTACT

Our process

- ### 1. FIND A NEED

Figure out what communities need, both immediately and in the long term.
- ### 2. LINK PEOPLE WITH CARE

Connect people with the healthcare systems they need and start patients on a path of sustainable health.
- ### 3. GO BEYOND CARE

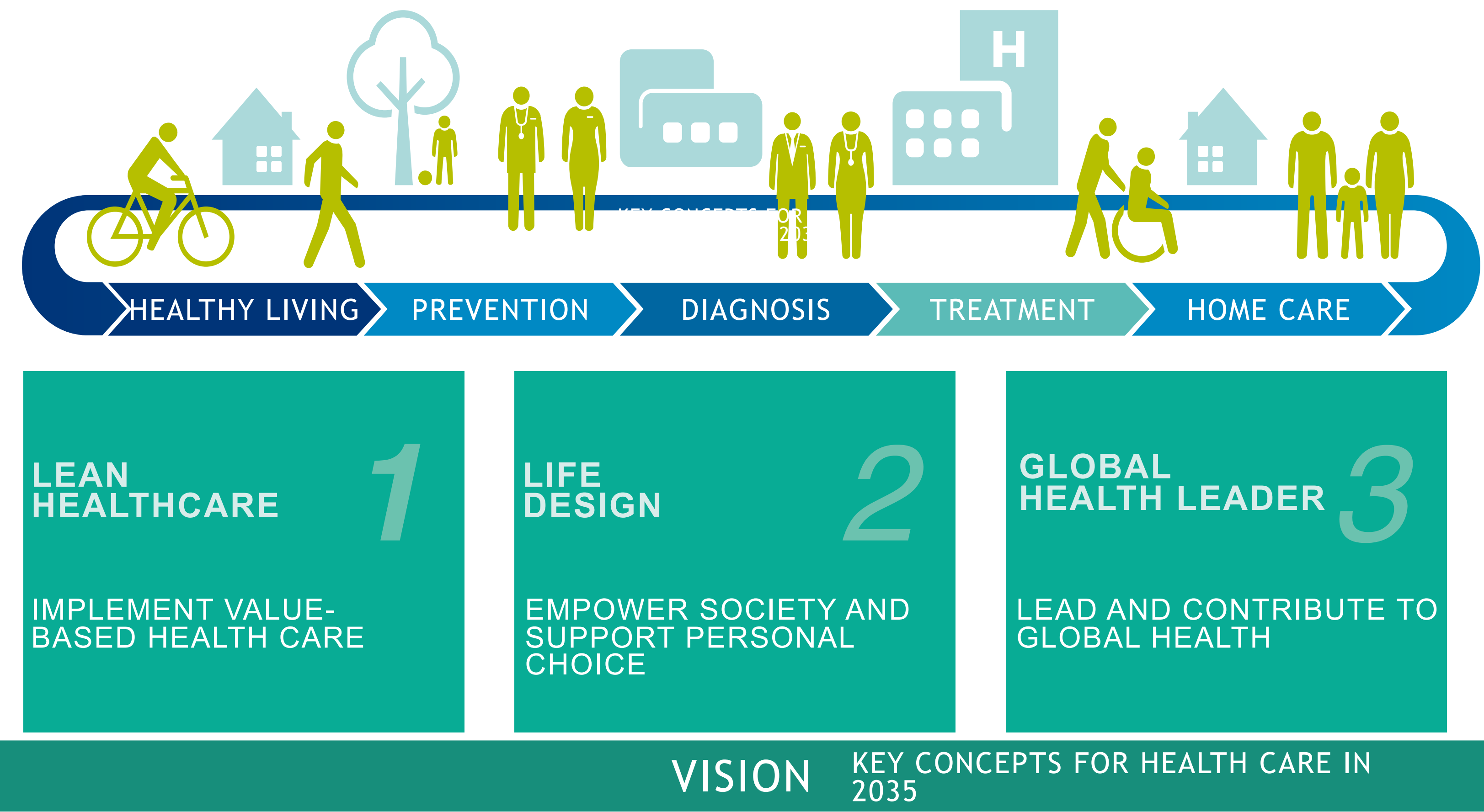
Help communities sustain their own success, connect them with universal health insurance, train next generation medical professionals, and research new breakthroughs and best practices.

Source: <https://www.ampathkenya.org/care-programs>

Beyond UHC: data needs for health/social system strengthening

Past	Present	Next
Young population	Aging population	Leaving no one behind (e.g., vulnerable and marginalized population)
Communicable disease	Non-communicable disease	Including pre-diagnosis phase (biomarkers), mind, healthy life style (social determinants), etc.
Hospital-enclosed	Community-based	People-centric (anytime, anywhere through global alliance)

Our Institute will establish the “Person-Centered Open Platform for Wellbeing (PeOPLe)”



- **Blockchain**
- **IoT**
- **Data ownership/use/ethics/rewards; and**
- **Cross-border data flows**

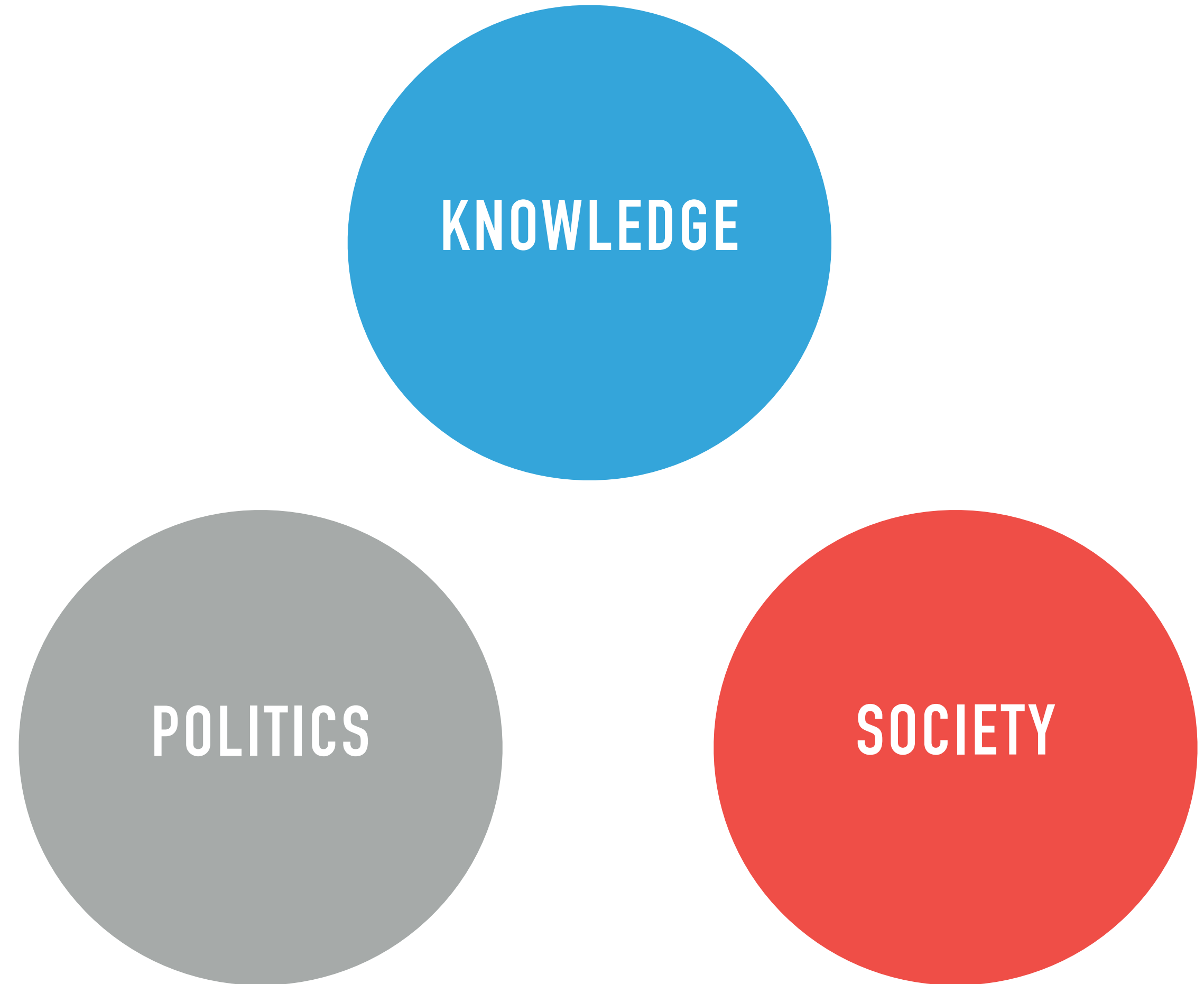
Go beyond UHC: A future health system in the era of “precision health” and “no one left behind”

Why King's?

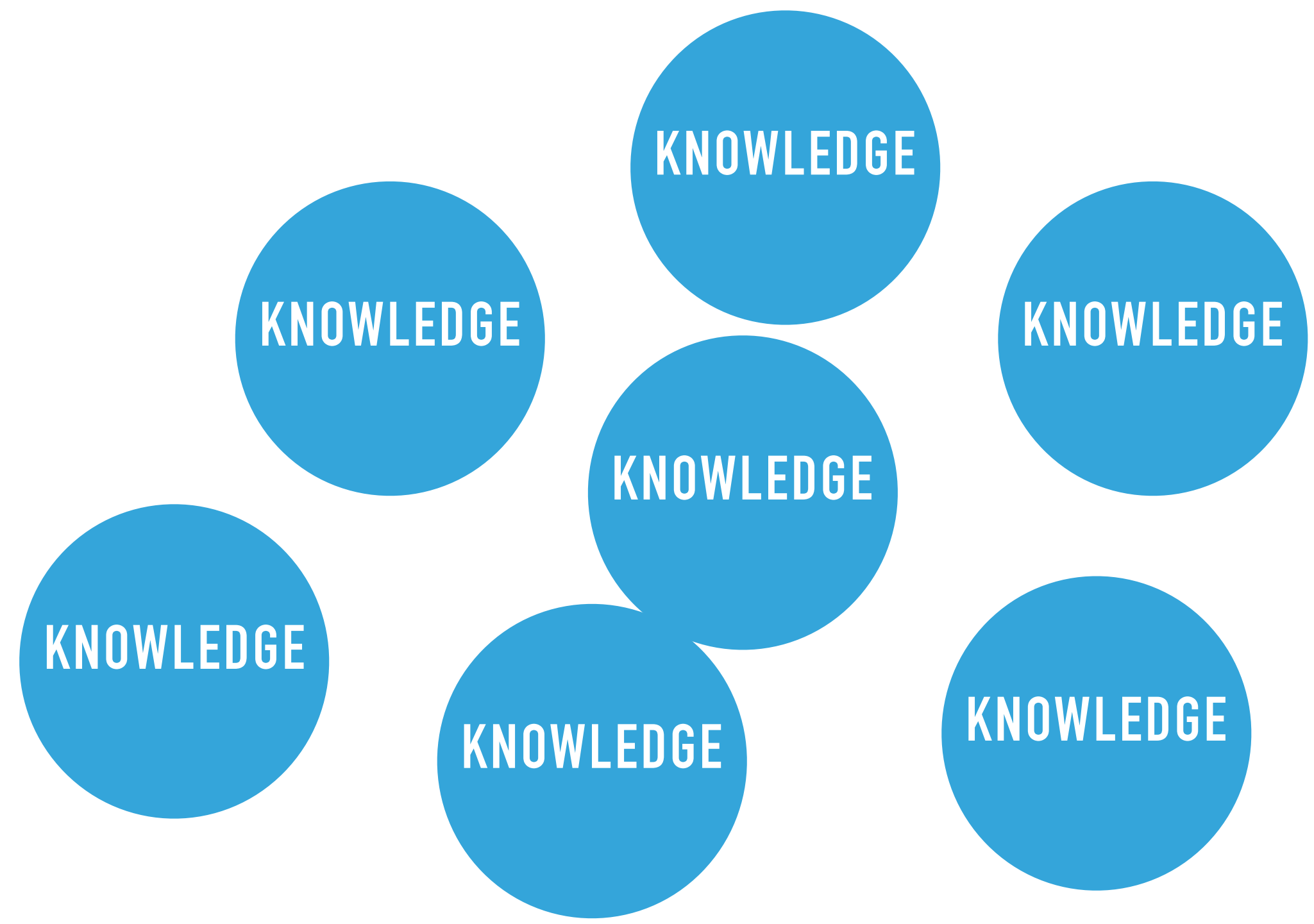
“Triangles that move the mountain”



Dr. Suwit Wibulpolprasert



Academic institutions



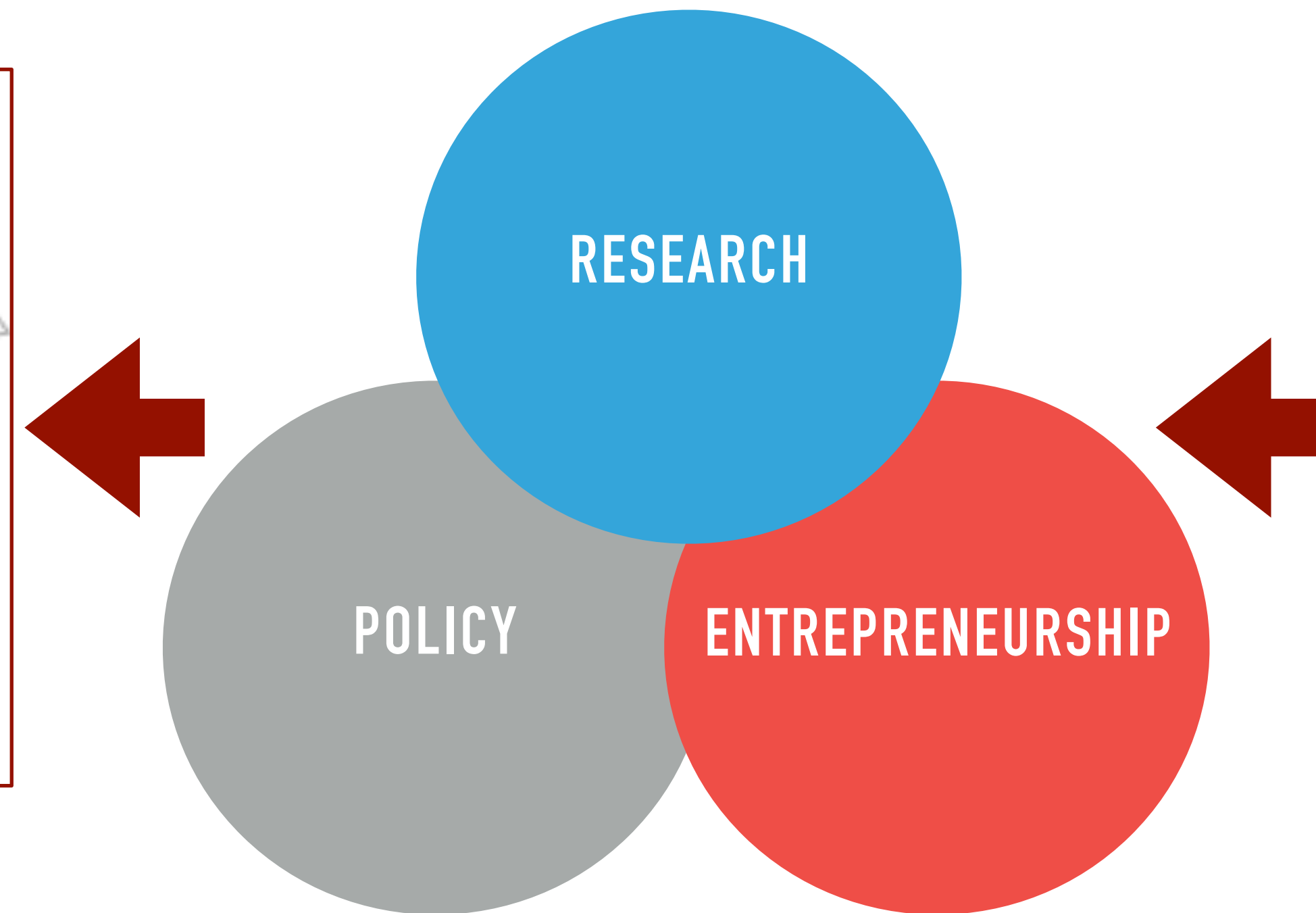
Body
Individual
Local
Disease



Mind
Society
Global
System

Why population health at King's?

King's asset = South London, a mirror for the world's future



Four “tsunamis” in health systems:

- 1. Population ageing**
- 2. Chronic diseases**
- 3. Health technologies**
- 4. Globalization**

Body and Mind
Individual and Society
Local and Global
Disease and System

Appointed as a Special Advisor to the WHO Director-General



Summary

- 1. From health care to social system**
- 2. Local-global interactions**
- 3. Towards the future of health systems**

**“We do not need magic to change the world, we
carry all the power we need inside ourselves
already: we have the power to imagine better.”**

J K Rowling, Harvard Commencement address, 2008