



S D G s と神奈川の取組み

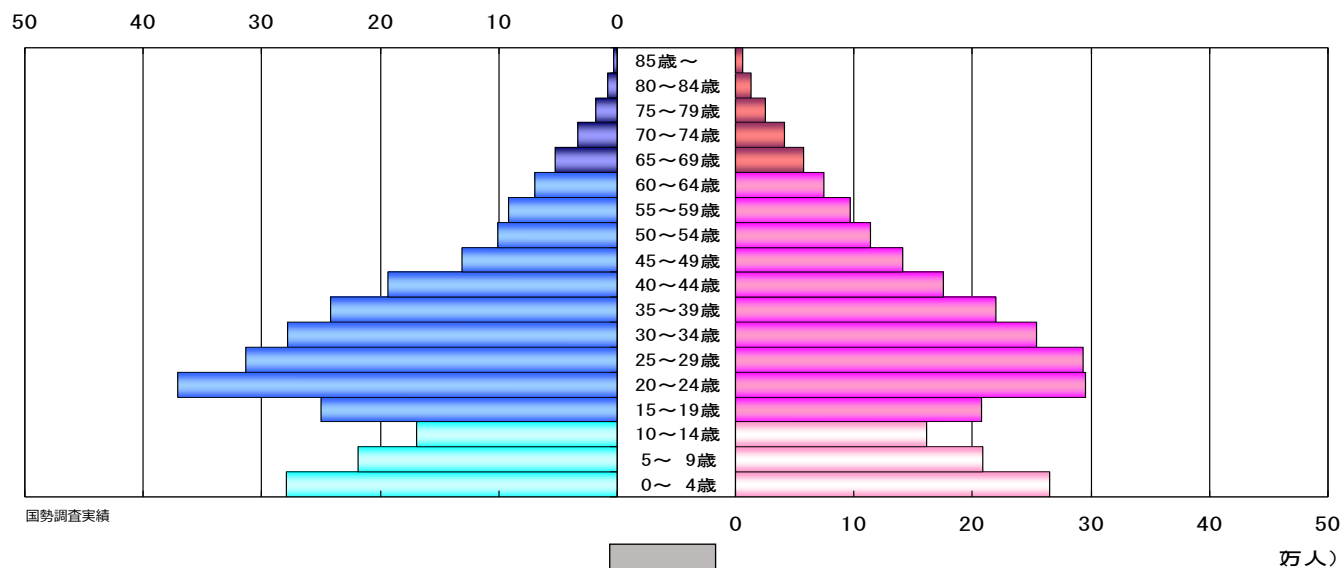
～いのち輝く神奈川を目指して～

神奈川県知事 黒岩祐治

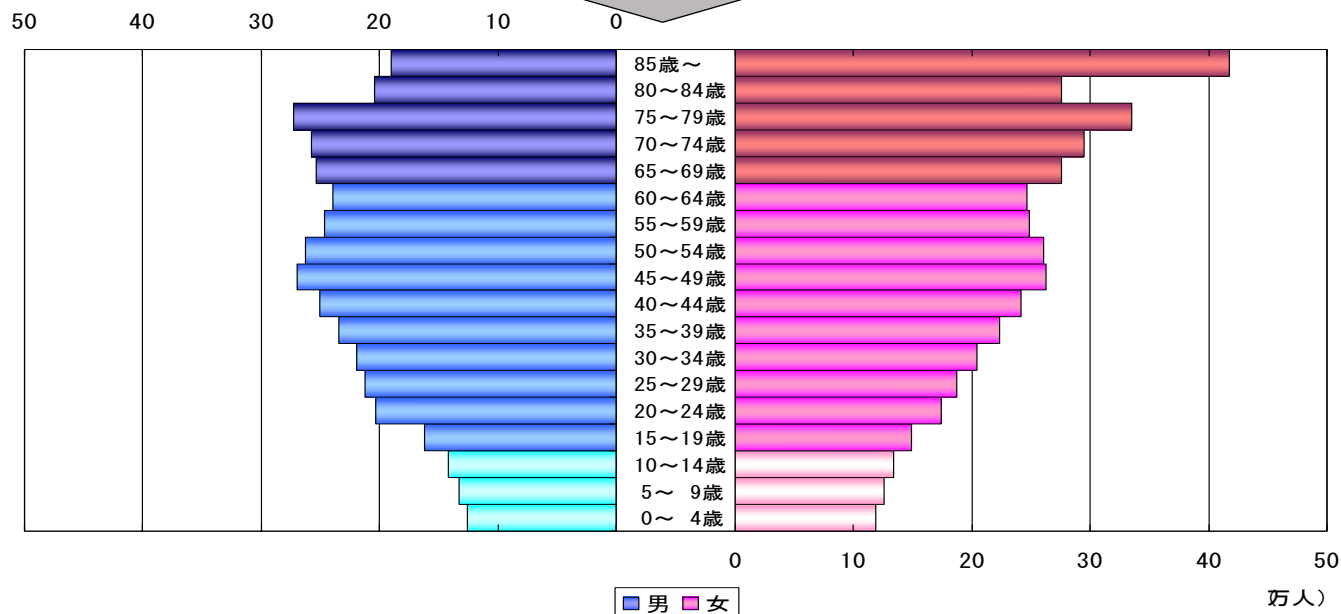


超高齢社会の到来

1970年



2050年



“Me-Byo”
「未病」

The state in-between health and illness

未病とは

健康
Healthy

病気
Sick

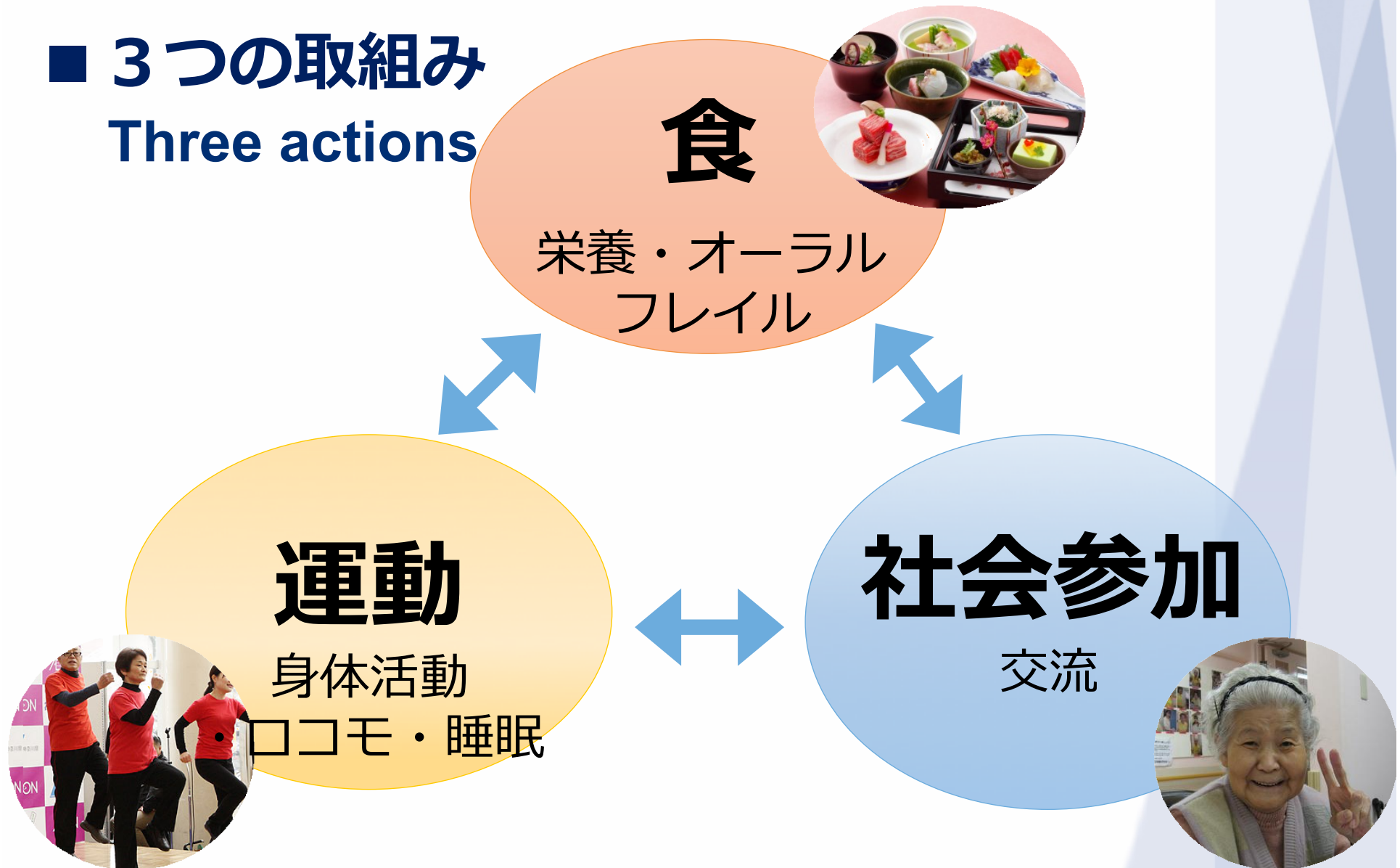
未病とは

健康
Healthy

未 病
ME-BYO

病気
Sick

■ 3つの取り組み Three actions



ヘルスケア・ニューフロンティアの推進

最先端医療・ 最新技術の追求

iPS細胞研究



ロボット
医療機器



マイME-
BYOカルテ



未病の改善

運動習慣奨励
医食農同源



等

個別化医療の実現

ライフスタイルの見直し

2つのアプローチを融合

健康寿命日本一 新たな市場・産業の創出

“ IoHH ”

Internet of Human Health

シンガポール政府機関とのMOU締結



メリーランド州とのMOU締結



マサチューセッツ州とのMOU締結



GCCとジョンズホプキンス大学・病院とのMOU締結



GCCと米国退役軍人省(VA)パロアルト・ヘルスケアシステムとのMOU締結



GCCとフランス政府機関CTV-SudとのMOU締結



ドイツ・バーデンビュルテンベルク州との 友好交流に関する覚書の締結



フィンランド・オウル市とのMOU締結



イギリス・セルセラピー・カタパルトとのMOU締結



スタンフォード大学医学部とのMOU締結



ME-BYOサミット神奈川2017 in箱根 H29.10.20~21 湯本富士屋ホテル

Moderator: Prof. Kan Suzuki
Panelists: Mr. Seiichi Kiso Dr. Sarah Louise Barber
Prof. Jiro Kokuryo Prof. Vish V. Krishnan
Mr. Tamotsu Hiiro



WHO訪問 マーガレット・チャン事務局長との会談（H28.10.21）



ネイチャー誌への掲載



Transforming healthcare based on ME-BYO

The Kanagawa prefectural government is accelerating advances in healthcare through academia-industry-government collaborations rooted in THE ME-BYO CONCEPT — a unique response to Japan's aging society.

By 2050, Japan is projected to have the highest proportion of centenarians in the world. Kanagawa, southwest of Tokyo and home to 9.1 million people, is one of the fastest aging prefectures in the country. To lead the way in tackling challenges posed by this unprecedented demographic change, the Kanagawa prefectural government is unveiling new strategies of the Healthcare New Frontier (HCNF) policy package.

"Medical technologies alone will not be enough to address the issue of our super-aging population," says prefectural governor, Yui Kuroiwa. "So it's imperative to drive advances in healthcare at the societal level, to help people of all ages become more aware of ways to improve our health on a day-to-day basis."

To propel this change, Kanagawa prefecture has been promoting numerous projects based on the "ME-BYO" concept. Derived from the Japanese word *mebyo* (literally meaning "pre-disease"), which has its roots in 2,000-year-old traditional Chinese medicine, ME-BYO

THE TOTAL NUMBER OF RESEARCHERS IN KANAGAWA ACTUALLY EXCEEDS THAT OF TOKYO

refers to the continuum between health and sickness. "Everybody is somewhere on the ME-BYO graduation scale," explains Kuroiwa. "Our approach is a paradigm shift away from the dualistic healthy-or-sick mode of

thought, as experience shows there are no such clear-cut distinctions." The term was patented in 2015 and ME-BYO was officially included in Japanese national healthcare policy in February 2017. By encouraging people to monitor their ME-BYO status, the wider goal is to develop technologies and practices (relating, for example, to diet) that may help prevent or delay the onset of illnesses and extend healthy longevity.

A WORLD-CLASS BIOMEDICAL HUB As part of the HCNF policy, Kanagawa is integrating research and development of life science-related businesses

through its activities in three new life zones: the Life Innovation in Kashiwa Coastal Area Comprehensive Special Zone for International Comprehensive Competitiveness Development, where leading companies such as Johnson & Johnson already have bases near Haneda International Airport; the Sagami Robotic Industry Special Zone (where life-supporting robots are being developed and trained); and Kanagawa itself, which is part of the National Strategic Special Zone for the Tokyo area.

In Tsukaguchi, Kawasaki City, located within the Life Innovation Special Zone, the prefectural government established the Life Innovation

Center (LIC) in 2016 through a public and private partnership. Dedicated to advancing the industrialization of regenerative and cellular medicine, the LIC houses industries from startups to major companies that conduct various research and development. It provides an advanced research environment, where researchers have access to shared equipment for cell analysis and other regenerative activities.

Kuroiwa says many incentives exist for companies to establish bases in Kanagawa, including subsidies, tax breaks and low-interest financing totalling up to JPY1 billion, plus free startup offices and ground-level support.

INSPIRING THE NEXT GENERATION OF HEALTH PROFESSIONALS

Set to open in 2019, the Health Innovation School is a graduate school that will become part of the Kanagawa University of Human Services.

Through a planned two-year Master of Public Health programme, the Health Innovation School will enable graduates to acquire skills in areas including data science, regenerative medicine, health technology and social systems. An English curriculum will be available for international students.

"As aging is a global issue, people who come to Kanagawa will find that what they learn

here will be relevant to the future of their home countries," says Kuroiwa. "We welcome all those interested in facing this challenge together."

Put simply, he continues, Kanagawa is a microcosm of Japan. Not only does it contain historical sites of interest such as Kamakura and the popular urban areas of Yokohama and Kawasaki, but it also has mountains, hot springs and beaches — the famous Shonan area will be the sailing venue for the 2020 Summer Olympics.

"Moreover, in terms of the research environment, we are second to none," he says. "The total number of researchers in Kanagawa actually exceeds that of Tokyo."

A GLOBAL OUTLOOK

Looking ahead, Kuroiwa envisions that the next technological breakthrough will be the rise of the Internet of Human Health. Equipping homes with sensors designed to monitor health and well-being could in future provide valuable data, which may be integrated into personalized ME-BYO clinical records.

International collaboration, he says, is vital for developing evidence-based approaches and promoting understanding of the ME-BYO model. To this end, the first ME-BYO summit was held in 2015. A total of 310 delegates attended the summit, including representatives from the World Health Organization, the US National Institutes of Health and the Harvard School of Public Health. An official declaration of intent was signed at this summit. The second summit was held in Hakone on 20-21 October 2017, centred on the theme of 'calibrating ME-BYO'.

Kuroiwa also has plans further afield. He is building relationships with organizations including Johns Hopkins University, Stanford University and the UK's Cell and Gene Therapy Catapult, as well as governmental and municipal bodies in Asia and Europe.

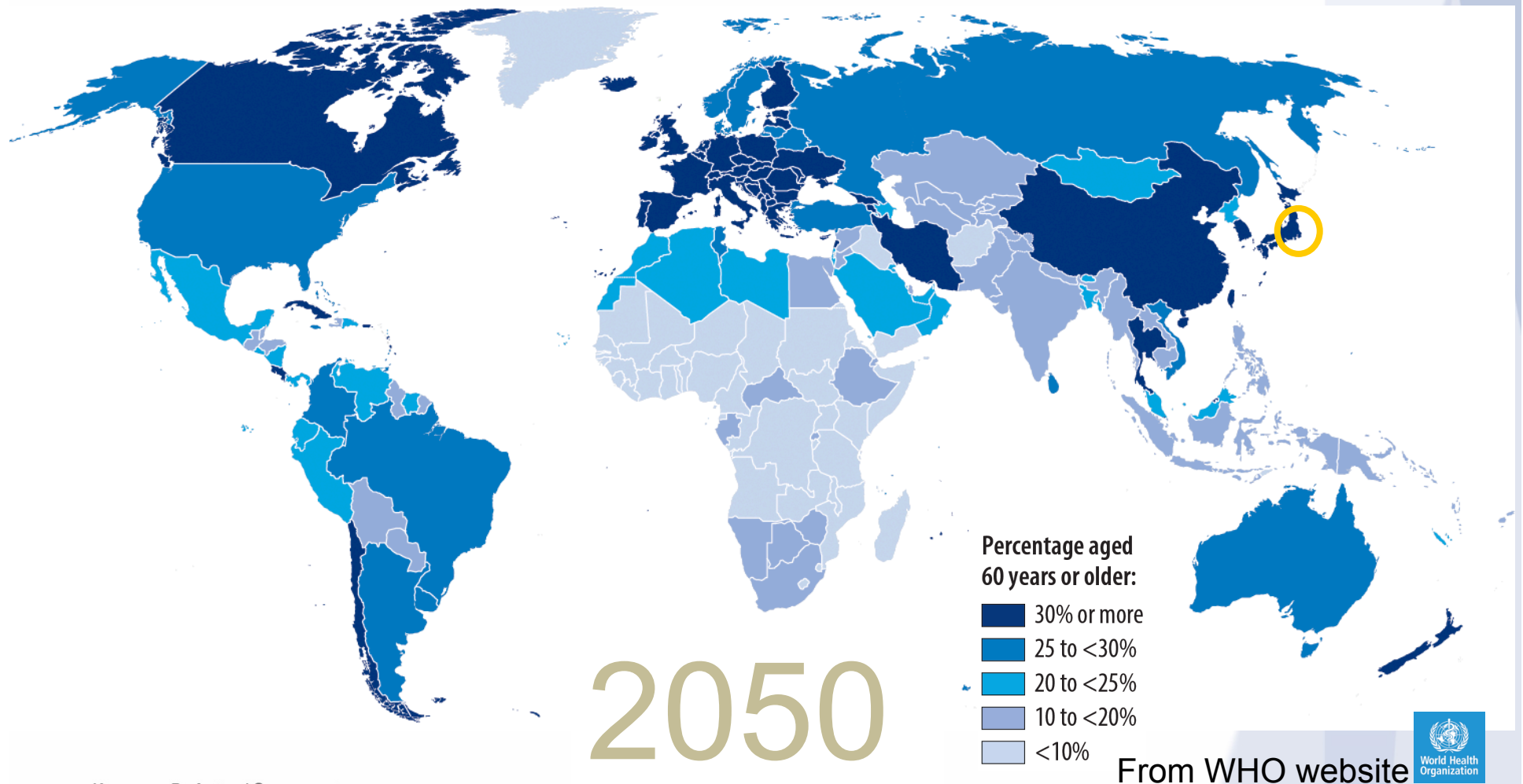
Important though is the blend of traditional and new thinking. "Japan is already at the forefront of high-quality medical research and access to medical services," he says. "By docking cutting-edge technologies with the ME-BYO concept, we aim to confront the biggest challenges of today and tomorrow."

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Populations are getting older all over the world.



いのち輝く神奈川



持続可能な開発目標 (SDGs)

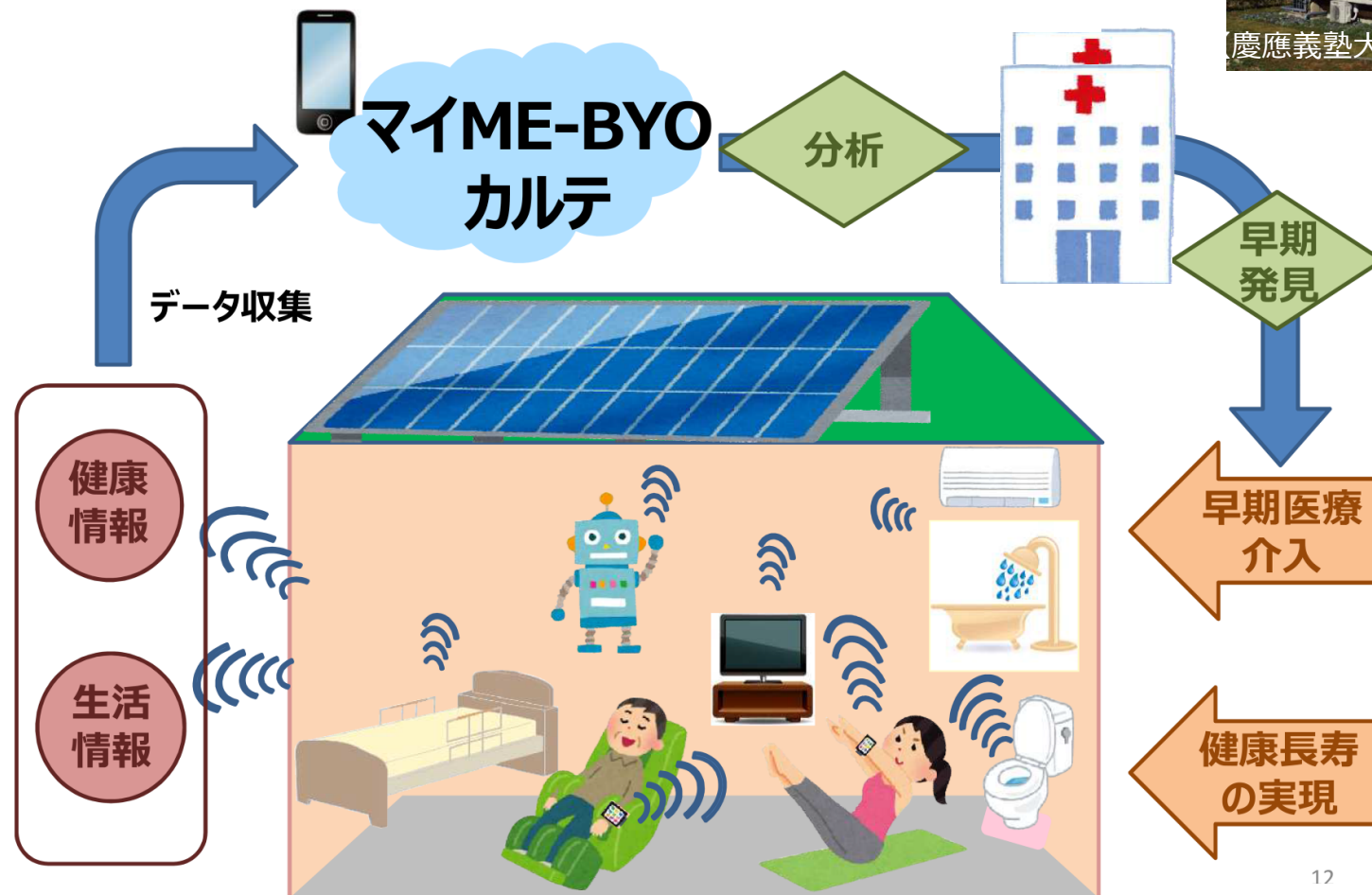
SUSTAINABLE
DEVELOPMENT GOALS

世界を変えるための17の目標



ME-BYOハウ斯拉ボ

「住みながら、健康に！」



〔慶應義塾大学湘南藤沢キャンパス内〕

3 すべての人に健康と福祉を



7 エネルギーをみんなにそしてクリーンに



9 産業と技術革新の基盤をつくろう



11 住み続けられるまちづくりを



IoTと連携された家「IoTスマートホーム™」



Kanagawa Prefectural Government



ME-BYOサミット神奈川2017in箱根



3 すべての人に
健康と福祉を



9 産業と技術革新の
基盤をつくろう



13 気候変動に
具体的な対策を



17 パートナシップで
目標を達成しよう



向井千秋 東京理科大学特任副学長
(宇宙飛行士、医師・医学博士)

Smile かながわ



ご清聴ありがとうございました。