## "Paradigm Shift in Nutrition and Diet: Demand-Side Approach and Innovation"

N4G's New Challenge: Bridging Nutrition Divides from Tokyo to France
PMAC Side Event
2024. 1.23 Yasuhisa Shiozaki

Thank you for your kind introduction, Naoko. I am so pleased to participate this unique and epoch making side event, scientifically mainstreaming the role of nutrition and diet for better health.

Today, I would like to propose the need to shift our paradigm in nutrition and diet policy to much more personalized solution which derives from demand-side judgement with scientific evidence. It should be achieved through full utilization of digital innovation in order to enjoy individual well-being in good health in a new "flat and inclusive" society with diversity, paying due attention to nutrition and diet.

Japanese nutrition policy in the post-war era which includes "school meal system", "nutritionist and dieticien system", "nutrition promotion movement in local communities" and many other, have been said to be one of the main determinants of achieving the longest longevity in the world.

As health environment changed as aging proceeded, so did the surging innovations, especially in digitalization with scientific, data-evidenced judgements become more central. As more inclusive the society becomes, including cancer survivors, disabilities and people with food allergy, more attention must be focused on the unique feature of health of individuals.

"Rapid aging with fewer babies" is the biggest challenge to the sustainability of our social security system. When I was the Health Minister, I realized the importance of so-called "preventive measures" to keep everyone's health, thus avoiding long term care partially by proper "nutrition and diet".

We have to admit that we have been putting too much emphasis on "idealistic solution" in general term on nutrition rather than what should be done according to the precise health needs of each individual. Simply put, we need a "paradigm shift" in nutrition and diet policy to something which could be called a "precision nutrition", just like "precision medicine":

So, we need,

Supply-side judgement → Demand-side judgement

Aggregate data 

→ Personal data

Input-based evaluation → Outcome-based evaluation

Quantity expansion 

→ Quality improvement

Data silos → Data integration

In order to obtain individual's daily scientific personal nutrition intake data to be analyzed, taking pictures of meals by smart phones is not enough. We need more science. So, we asked Nutrition Department Conference of National University Hospital in Japan to invent a new application to "calculate out" the nutritional intake of individuals by self-answering to about 20 questions in every 1~3 months and receive the advices for better diet. If you adjust the nutrition intake formula in the application to each country's food culture, you can apply this application to any country including LMICs.

Preventive measures for better health under sophisticated but dynamic digital health network system would necessitates consolidated and comprehensive health data sets to make proper judgement including clinical medical data, thus the policy to enhance the health and well-being of every individual. I would like to stress here that nutrition and diet data should be included in such health data sets as the integral, indispensable part of these data sets.

Thank you very much.