

The role of the G20 economies in global health

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Abstract: The Meetings of Health Ministers of the Group of Twenty (G20) that started at the G20 Summit in Berlin, Germany in 2017 have provided a platform for the discussion of global health matters such as antimicrobial resistance (AMR), public health emergencies, and universal health coverage. Similar issues are also discussed at meetings of the G7 and the World Health Assembly (WHA). This article will examine recent data to explore the characteristics of the G20 and its potential for improving health outcomes. G20 countries have a leading role to play in helping other countries improve global health outcomes because member countries have already faced many issues associated with aging society and increased prevalence of non-communicable diseases (NCDs). Indeed, 71% of the world's elderly population lives in the G20 countries and most of these countries have a high proportional mortality from NCDs of more than 70%. G20 countries are also responsible for a disproportionate share of global impacts. For instance, 72% of CO₂ emissions are produced by G20 countries. Migration dynamics and its consequences also need to be considered from the perspective of optimizing health outcomes. Moreover, 78% of the world's top 50 pharmaceutical companies are located in the G20 countries. There is ample room for G20 countries to pursue collaborative and cooperative approaches that can complement the roles of the G7 and WHA in similar health issues. The G20 could, for example, share experiences on dealing with aging and NCDs, reduce their CO₂ emissions, prohibit the production of low-quality medicines, and use standardized health check-up formats for migrants and refugees to transfer their own health information. As a group, the G20 countries have the potential to solve global health problems and other issues. The convening of high-level health meetings at G20 summits has the potential to facilitate such endeavors.

Keywords: Aging, G20, health, migrants, non-communicable diseases (NCDs), pharmaceuticals, refugees

Introduction

Historically, the Group of Twenty (G20) summits have been characterized by meetings between finance ministers and representatives of central banks and have had mandates to promote cooperation towards sustainable economic growth (1). The G20 has significant influence globally. For instance, the G20 countries collectively occupy around 54% of the land mass worldwide (2), and they account for 64% of the world's total population and 86% of global GDP (3). In recent years, the G20 has addressed issues beyond finance and trade. For example, the first Meeting of Health Ministers of G20 held in Berlin, Germany in 2017 discussed global health matters, including antimicrobial resistance (AMR), public health emergencies, and universal health coverage (UHC) (4,5). However, G7 Summits such as the Ise-Shima Summit (6) and the World Health Assembly (WHA) have also hosted similar discussions on global health issues (7),

which raises the questions of what role the G20 countries have in health and how necessary and useful the G20 Meetings of Health Ministers are.

This article will examine recent data to identify and explore some characteristics of the G20 and its potential role in the health domain.

Present state

Aging

In recent years, population aging has become an important issue around the world (8). Japan has the highest proportion of elderly people (33% of its population), followed by Italy and Germany. The world average is around 12.7% (8). However, in terms of the number rather than proportion of elderly people, China has more elderly people than any other country, followed by India and the USA (8). Overall, 71% of the world's elderly

population lives in G20 countries (Figure 1).

Disease dynamics in G20 countries

Globally, in the 1990s the leading causes of Disability-Adjusted Life Year (DALY) lost were due to maternal, childhood, and neonatal diseases, respiratory infections, tuberculosis, and diarrhea. Since then, Non-Communicable Diseases (NCDs) such as ischemic health diseases, stroke, chronic obstructive pulmonary diseases, cancers, and psychiatric disorders have become

predominant (9). According to the World Health Organization (WHO), 70% of the mortality associated with NCDs occurs in 17 of the 19 G20 countries excluding the EU (Figure 2) (10). This is not just a trend observed in developed countries; many developing countries are also seeing an increase in NCDs (10).

Climate change

According to the U.N. Paris Declaration in October 2018, the threats posed by anthropogenic climate change are substantial (11). Therefore, the loss of life due to climate change is increasing year on year through, for example, heatwaves and droughts, changes in precipitation dynamics, and extreme weather events (12). The key greenhouse gas responsible for these impacts is carbon dioxide (CO₂) (13) and, collectively, the G20 countries are responsible for around 72% of global CO₂ emissions (14) (Figure 3).

Mobility and Migration

The popularity of air travel continues to increase worldwide (15), and with it, international population mobility is also on the rise. Both the displacement (16) and international migration (17) of people are also increasing globally, with 57% of international migrants coming from G20 countries such as India, Mexico, Russia, and China. However, 78% of international

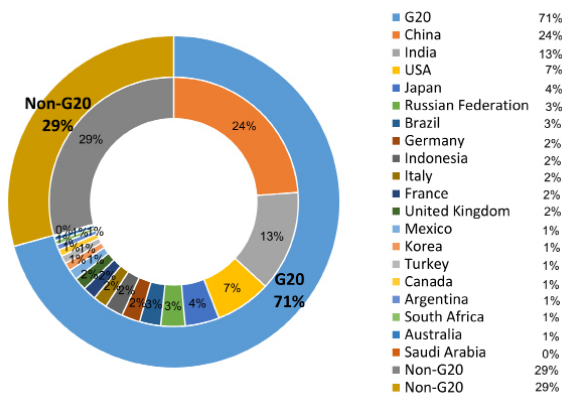


Figure 1. Proportion of the population aged 60 years or over (2017). Data source: http://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2017_Highlights.pdf (8).

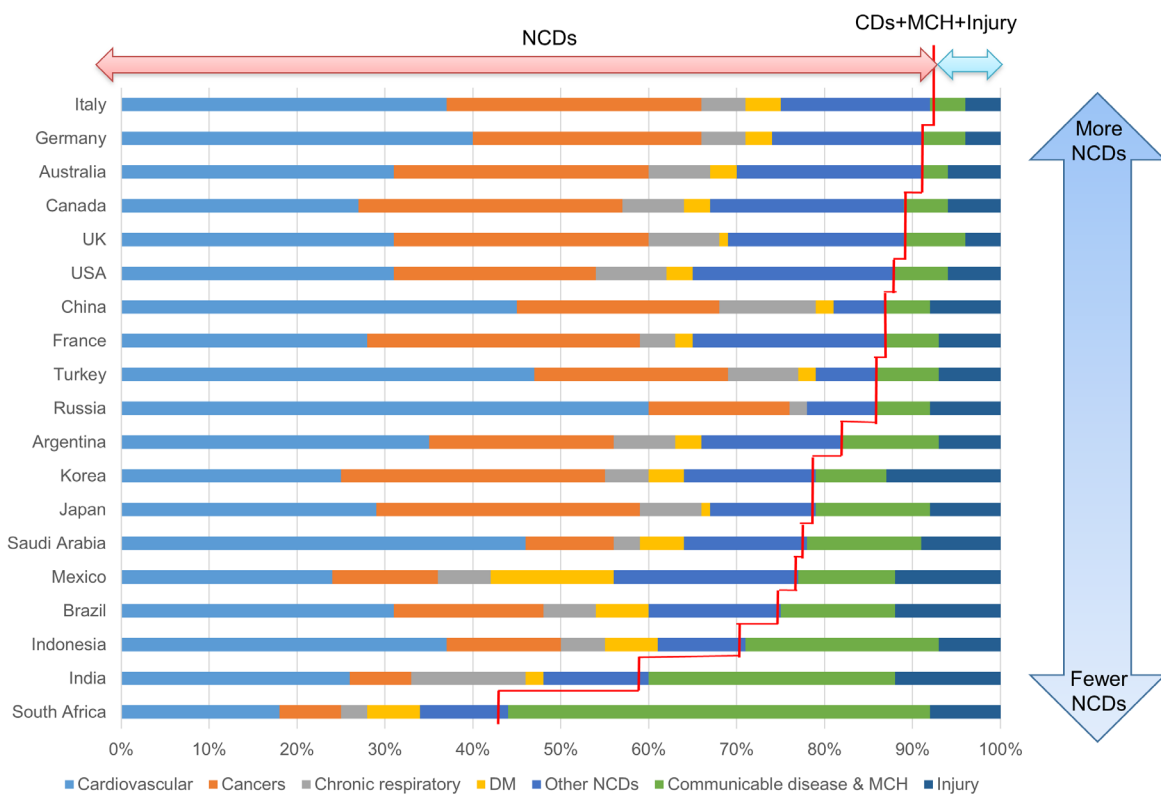


Figure 2. Proportional mortality (G20, except EU) (% of all deaths, all ages, both sexes). Data source: https://apps.who.int/iris/bitstream/handle/10665/128038/9789241507509_eng.pdf;jsessionid=BEEB2253AC4BD65717F996270A1B200F?sequence=1 (10).

migrants relocate to G20 countries such as the USA, Germany, Russia, and Saudi Arabia (18) (Figure 4).

Pharmaceutical companies

Of the world's top 50 pharmaceutical companies, 78% are located in G20 countries such as the USA, Japan, the UK, and Germany. However, the second most important country in this respect is a non-G20 nation, Switzerland, where 13% of the top 50 pharmaceutical companies are located (19) (Figure 5).

Discussion

The G20 is heavily represented in many global topics and fields of interest. This means that the G20 countries can have an important role to play in global health because of their experience dealing with particular issues. For

instance, many G20 countries have an aging society and are therefore developing novel approaches, frameworks, and policies to deal with the issue. One such approach is long-term care insurance in Japan.

The majority of G20 countries are also faced with threats in terms of mortality and morbidity associated with NCDs, including cardiovascular diseases, neoplasms, and diabetes mellitus (10). Consequently, they should prepare strategies that minimize the occurrence of, and optimize the response to, NCDs. Each G20 nation must develop its own approaches. Therefore, the lessons G20 nations have learned in terms of cost, benefits, impacts, and uncertainties could be useful for other countries that are likely to face increasing prevalence of NCDs in the years to come as their own aging society (8).

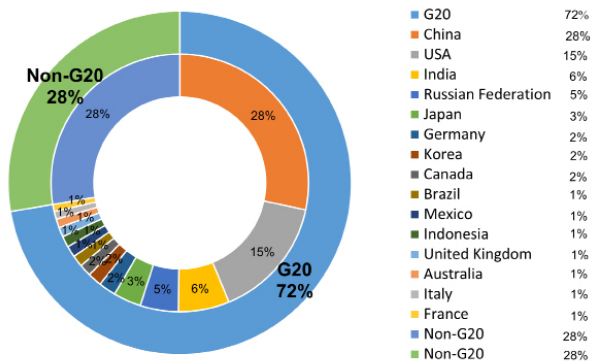


Figure 3. Global carbon dioxide emissions (2015). Data source: http://www.jccca.org/chart/chart03_01.html (14).

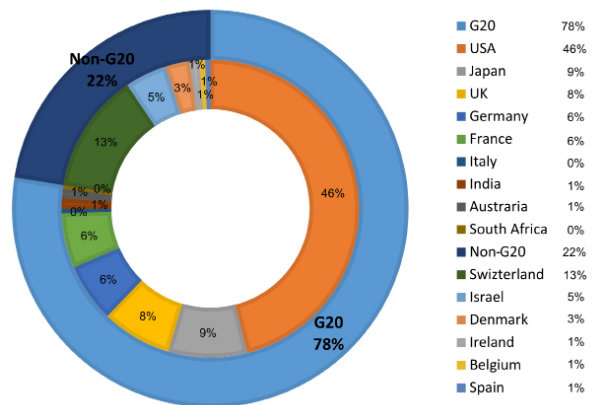


Figure 5. Locations of the world's top 50 pharmaceutical companies. Data source: <http://www.pharmexec.com/pharm-execs-top-50-companies-2017> (19).

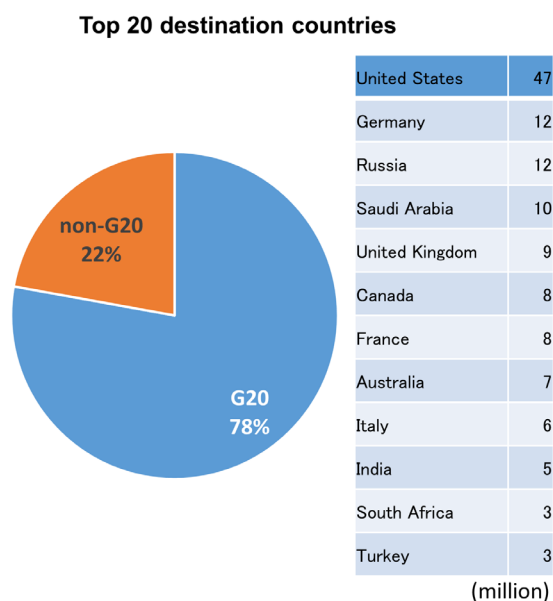
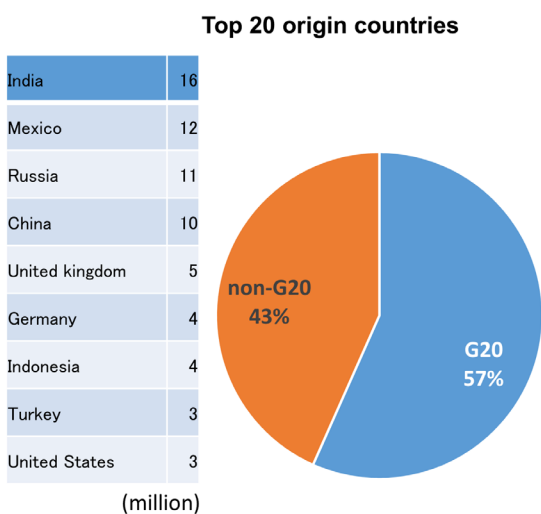


Figure 4. Top 20 origin and destination countries of international migrants (2015). Data resource: http://www.un.org/en/development/desa/population/migration/publications/migrationreport/docs/MigrationReport2015_Highlights.pdf (18).

G20 countries are responsible for some issues of concern such as CO₂ emissions, but they may have difficulty agreeing on commitments to reduce CO₂ emissions. The USA, for instance, announced its withdrawal from the Paris Declaration (20) even though it is responsible for a disproportionate amount of global CO₂ emissions (14). However, that does not mean that effective cooperation is not possible in other domains. For instance, the issue of counterfeit and substandard medicines could be managed if the pharmaceutical companies in G20 countries, which account for 78% of the global market, agreed not to produce low-quality medicines. If Switzerland were to join such a campaign, the share would become 91% (19). In addition, the G20 has considerable leverage with respect to influencing the pharmaceutical sector to reduce and perhaps control the cost of expensive diagnostics and treatments for NCDs.

Population growth, easy access to other countries, and armed conflicts lead to mass migration in the form of refugees, workers, and tourists (15). This can increase the spread of emerging and re-emerging infectious diseases such as Ebola-type diseases that necessitate a Public Health Emergency International Concern (PHEIC) as well as AMR diseases such as multi-drug resistant tuberculosis. NCDs may affect migrants (*i.e.*, refugees, workers, and tourists), so their health care costs can become a burden on host (recipient) countries. If the G20 would agree to use standardized health check-up formats and frameworks for migrants to transfer their own health information such as one's immunization history to other countries or other organizations, it could help many migrants more easily receive appropriate health services, and the recipient countries could protect their own populations from infectious diseases.

Thus, G20 countries may be able to collaborate on developing and implementing frameworks rather than merely setting global policy goals for AMR, UHC, and PHEIC.

Conclusions

Because of their influence on the global economy, G20 countries have the collective potential to solve many global health issues. The G20 can take on roles and tasks unlike those of the G7 and WHA even while addressing similar issues. In an era of Sustainable Development Goals, collaboration among actors in different fields is clearly necessary if global health outcomes are to be improved. Thus, the issues that G20 countries must tackle go beyond health and include social and environmental matters, too. The world expects the G20 countries to play an important role in achieving those outcomes.

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