



Growing up **2030** in a digital world

GOVERNING HEALTH FUTURES
THE LANCET & FINANCIAL TIMES COMMISSION

POLICY BRIEF

The digital determinants of health

○ October 2021



KEY MESSAGE

The digital determinants of health are the direct and indirect ways by which digital transformations influence equity in health and wellbeing. Conceptualising the digital determinants of health can help policymakers to anticipate the ways in which digital technologies and data may positively and negatively impact people's health and wellbeing, including that of future generations. Decision makers, health professionals, and researchers should consider digital technologies as increasingly important determinants of health and address their interactions with the other determinants.

The Governing Health Futures 2030 Commission defines digital transformations as the social, technical, and political processes of integration of digital technologies and data into all areas of life and the resulting changes that they bring about. Whilst policymakers have begun to recognise the urgent need to maximise the opportunities and mitigate the risks presented by digital transformations, a governance gap remains. The governance of digital transformations often spans across different governance categories, and as such is often judicially reactive rather than legislatively proactive.¹ In this policy brief, we elaborate on the concept of digital determinants of health which the Commission believes is a helpful framework for moving towards a precautionary, value-based approach to the governance of digital transformations in health.

What are the digital determinants of health?

The digital determinants of health are most broadly defined as the direct and indirect ways by which digital transformations influence equity in health and wellbeing. Digital transformations are in themselves a determinant of health, but they also interact with the many other social, political,

commercial, and environmental determinants that define the health futures of children and young people (figure 1).

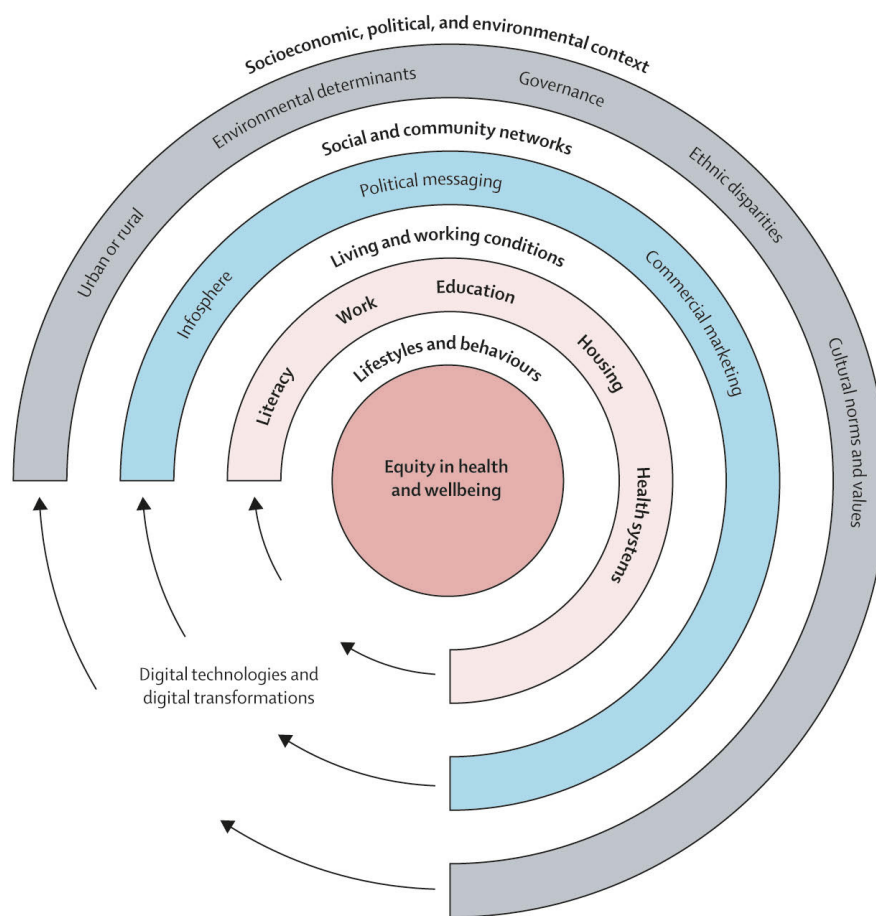
The digital determinants of health can be characterised in three levels as:

- i. the digital technologies (and related factors and processes) that directly impact health, through their application in health systems, health care, and self-monitoring of health status and behaviours;
- ii. the digital technologies (and related factors and processes) that indirectly impact health, through their influence (both positive and negative) on the social, commercial, and environmental determinants of health; and
- iii. the digital ecosystem itself, including the variable dynamics of digital and data access and literacy and their implications for health equity.

Conceptualising the digital determinants of health enables health governance to address both the direct influences of digital technologies on health, and also the indirect ways in which broader digital transformations influence health equity.

1 Sun N, Esom K, Dhaliwal M, Amon JJ. [Human rights and digital health technologies](#). *Health Hum Rights* 2020; 22/2: 21-32.

Figure 1. Conceptualising the interface between digital technologies and the determinants of health



Why it is important to address the digital determinants of health

Digital transformations—or the exclusion from their affordances—are already affecting all peoples and all areas of life and health. Addressing the digital determinants of health is therefore increasingly important as digital technologies become integral to how health is understood and delivered. Identifying the intersections of digital transformations and other determinants of health can help policymakers develop more effective governance responses to the positive and negative impacts of digital transformations on health and wellbeing.

Digital determinants of health are both constructed by, and influenced through,

other determinants of health. Because of this bidirectional character of the digital determinants of health, a number of questions for health governance are revealed in relation to how to govern direct and indirect influences of digital transformations amidst intersections with other health determinants

The Commission's focus on the digital determinants of health is not to overshadow existing frameworks on the social, political, commercial, and environmental determinants of health. Addressing digital determinants of health is necessary but not sufficient to achieve sustainable health futures. For this reason, in its recommendations, the Commission also reinforces the need for increased investment in critical determinants of health such as education, the future of work, and climate action.

Implications for policymakers

Decision makers, health professionals, and researchers should consider digital technologies, platforms, and services as increasingly important determinants of health, and address their influence on other determinants. Due to the complex, multicausal and constantly evolving nature of digital transformations, addressing digital determinants demands a whole-of-government, inter-ministerial approach and collaboration with diverse stakeholders. For example, building a population's digital health literacy requires action from education and education sectors, connectivity infrastructures, community engagement, public-private partnerships, commercial regulation, and more.

More research is needed to better understand the ways that digital transformations act as direct determinants of health and wellbeing and their indirect impact through other determinants. In particular, a longitudinal multicountry study with young people would help to bridge evidence gaps on the cumulative effects of different determinants of children's and young people's health. Examples of where governance structures have already been (re)organised to incorporate digital determinants of health should be analysed to draw out lessons and best practices for effective governance.

This policy brief was produced by *The Lancet* and Financial Times Commission on Governing health futures 2030: Growing up in a digital world. The original report was published in *The Lancet* on 24 October 2021 and is available online at <https://www.thelancet.com/commissions/governing-health-futures-2030>.

Suggested citation: Governing Health Futures 2030 Commission. Policy brief: The digital determinants of health. Geneva; 2021.



The Lancet & Financial Times Commission
Governing health futures 2030: Growing up in a digital world

The Secretariat is hosted at:
Graduate Institute of International and Development Studies
P2-714, Maison de la paix
Chemin Eugène Rigot 2
1211 Geneva, Switzerland

www.governinghealthfutures2030.org