#### THE DIGITAL TRANSFORMATION IN HEALTH UNDER COVID-19

Policies for the Development of Data Infrastructure, Sharing and Use

Francesca Colombo, Head of Health Division Directorate for Employment, Labour and Social Affairs

The 3rd WASS Digital Health Panel Discussion, 12 October 2020



## Digital health has potential to be transformational...



#### Clinical practice improvement (quality)

Faster access to critical information More analytical precision Improved **clinical decision making** (A.I. & Machine learning)

#### System management

Monitor **performance** Ensure better access to care **Reduce waste** 





#### Surveillance

Evaluate **public health** interventions Inform good policy Faster detection of outbreaks & hotspots Faster response to public health emergency

#### **Empowering people to self-care**

Connected patients and doctors Better patient **experience and satisfaction** Greater patient voice, choice and coproduction of health



#### **Research & innovation**

Statistical power Vast and varied datasets 'Real world evidence' for improving **medical technologies** 





#### Predictive public health

More precise identification of at-risk populations More **targeted strategies and interventions** to improve health promotion and disease prevention



# Despite rapid digitalisation and immense opportunities in an industry where information and communication are so intrinsic to success and failure,

the health sector remains 'data rich but information poor'



0.5

0

Markeing & other

L8981& 8000000000

Administrative services

Scientific R&D

Public administration

Socialwolt

Health

Phamaoautrals

Note: Note: Gross fixed capital formation (GFCF) is a measure of spending on fixed assets. Source: OECD 2019, Health in the 21st Century

Phamaceuticals

Public administration

socialwoft

Health

10

0

Matteing & other

189818 8000Hin9

Administrative services

Scientific R&D

Media



#### Barriers and enablers of telemedicine use highlighted by experts, by number of reporting countries

Privacy and security legislation, information governance Connectivity, access to broadband, and coverage in rural areas Suitable qualification/accreditation/training of staff Interoperability and ICT infrastructure Clear reimbursement mechanisms Specific legislation on telemedicine (e.g. on liablity) A single coherent governance, management, funding strategy Culture of change and adoption of new technologies



Note: x-axis is number of countries; Source: OECD 2020, Bringing health care to the patient: an overview of the use of telemedicine in OECD countries

### Missed opportunities in linking & using data



Source: OECD 2019, *Health in the 21st Century*.



#### Households in areas where fixed broadband with a contracted speed of 30 Mbps or more is available, 2017



Source: OECD 2019, Measuring the Digital Transformation: A Roadmap for the Future



# A true digital transformation in health requires political leadership, will and bold policy reform

Strategy	<ul> <li>Overarching, cross-sector digital (health) strategy with a consolidated vision, plan and policy-framework</li> </ul>
Governance	• A <b>governance framework</b> that enables data use and sharing for agreed purposes but ensures privacy and data security
Capacity	• Human (workforce and the public to make the most from digital technology) and <b>institutional</b> (data can be put to work to generate knowledge and action) capacity

# Artificial intelligence and COVID-19: a new impetus?

#### Drug discovery



Machine learning used in the UK and Hong Kong (China) to identify molecules to halt viral replication

#### **Responsive people-centred care**



In Spain, automated chatbots that can both enquire about symptoms and give advice SARS-CoV-2

#### Faster diagnosis & prognosis

Al models developed in China learn from CT scans to support faster interpretation of images



Early warning & surveillance

Canada and US searching big data o within and outside health sector to spot infections and target policy



#### Safer care & work environments

Danish self-driving robots with ultraviolet light to disinfect health care units moving autonomously from room to room, taking the elevator and opening doors automatically

# Exponential growth in telehealth but will it last?

See http://www.oecd.org/health/COVID19-OECD-Health-System-Response-Tracker.xlsx for more

New services and platforms

e.g. Slovak Republic, Greece, Israel,

New legislation allowing use

e.g. Costa Rica, Peru, Estonia, Poland

Turkey, Luxembourg, Brazil, Chile, Spain

#### **Expanded provider payment**

e.g. Estonia, Slovak Republic, Poland, Japan, Belgium, US, Ireland, France, Australia

#### New guidelines and regulations

e.g. Belgium, France, US, Japan, Korea



#### High-level political encouragement

e.g. Switzerland, UK, France, US

#### Image of coronavirus: Alissa Eckert, Dan Higgins/CDC



#### Before the pandemic hit only a few countries had real-time data on:

- Real-time data about clinical visits at the national level.
- National international traveller information linked to patient data.
- National laboratory testing regarding influenza test results.

#### Now, according to informal poll of OECD country delegations:

- 83% noted COVID-19 had led to more timely data collection
- 74% that it had led to new person-generated data
- 61% that it had led to new or improved data linkage





A digital transformation can help address emerging health & policy challenges but...

a digital transformation relies on policy reform, not just digitising existing processes

Strategy, governance and capacity can set the reform process in motion &

Smart investment will lead to a healthy economic return

#### Read more @ www.oecd.org/health & www.oecd.org/coronavirus



#### Follow us on Twitter @C

#### @OECD\_social

#### Email us

#### Francesca.COLOMBO@oecd.org