Investing in a Digitally-Transformed UHC

Integrating the digital into the health economy:

Focus:

> *This includes recommendations from the DIIG, and national level examples. How are things like telemedicine and diagnostics being integrated into the broader health system to be able to work most effectively, and how are they financed across health and digital domains which does not lose the focus of health in funding, nor silo them?*

Key Takeaways:

- Please review DIIG (1) to understand the i) stages of implementation design that these issues are to be considered and ii) characteristics of effective interventions which balance the intersections between health and digital economies. These recommendations are highly specific, and worth reading in full, so I will not do them the disservice of a reduced summary here.
- Some national examples highlight the barrier of entry for digital technologies to provide health care. Specifically, for things like telemedicine, there is a recurring problem of needing enough users to realize a ROI and the problem of physician reimbursement. One model which solves both of these issues has been PPP, the government ensuring a minimum demand is met of the service and acting as some type of payment intermediary; i.e. whether the government pays the telemedicine company directly, or ensures the company receives payment from the publicly funded health centres.
- There is an argument to be made for funding digital health technologies with health at the centre, rather than the capitalizing potential of technology, when investment is viewed from a long term perspective.
- Blended finance models, between private, philanthropic, and public sector, also seem to be a common theme in the way in which digital health investment can traverse borders and be realized more long term. The former two are often funded by the same company, which many term philanthrocapitalism.

1. **Digital Implementation Investment Guide. WHO. 2020. <u>Source</u>. <u>Summary available as NFF.</u>**

Key Topics: Finance; Enterprise architecture; Implementation; Implementation Planning

Source Type: WHO guidelines

Focus: Worldwide

Case Made:

To realize UHC, or more accurately increase access to health care for as many as possible, it is important to consider how digital health interventions fit within existing financial constraints. Further, accurate costs of supporting digital technologies must be estimated.

Solutions Suggested or Implemented:

Overall, the DIIG suggests two key strategies to ensuring that the financial structure of digital technologies is able to benefit the most people: i) consider how digital technologies can fit within and contribute to the existing digital architecture within the framework of enterprise architecture; and ii) plan for the long term monitoring, evaluation, and maintenance of digital technologies to ensure efficacy as well as long term operation and maintenance:

- "Link digital health investments to the enterprise architecture: a. Identify the existing digital health enterprise architecture and envision what the future state of digital services and applications will be within the digital health enterprise architecture. Key questions for this include:
    o What are the core components for this digital health implementation?
    o Which existing common components can be reused or leveraged from other health programme areas?
    o What common components are new requirements that the digital health investment can support and contribute to the national digital health enterprise architecture?
- The full costs of interventions are frequently underestimated as they do not take into consideration the resources for long-term operation and maintenance. Economic evaluations can provide encouragement for implementation and buy-in. BID did an economic analysis in Tanzania and Zambia which showed less than 10 USD per child under 1 year of age, and up to less than 5 USD for a country like Tanzania with a large birth cohort. The Report recommends utilizing a budget matrix to plan the budget life span for on average five years. This includes the following budgeting categories.
    o Ongoing/all phases
    o Development and setup
    o Deployment
    o Integration and Interoperability
    o Scale
    o Sustained Operations"

2. **Lancet and Financial Times Commission Africa Private Sector Consultation. Babyl. Phone Company. 2020. Summary.**

Key Topics: Public private partnership; COVID-19; Telemedicine; Contracts

Source Type: Event

Focus: National (Rwanda)

Case Made:

The phone penetration is 80-100%, in Rwanda it is about 10-15% of smart phone penetration. This means that some of the best digital solutions are telemedicine call centres. However, there can be high overhead costs requiring a large number of users.

Solutions Suggested or Implemented:

The point I want to stress here is how the **government offered the company an exclusive contract.** There was a sentiment in this event that without such things like exclusive contracts, the overhead costs incurred when health is taken into the digital space would be too high. In other words, for companies to reach a return on investment for digital health technologies they often need a minimum number of users; exclusive contracts are one means of accomplishing this. Importantly, **COVID also worked as a stimulus to help the health sector overcome the barrier to entry of the digital. When the Commissioners say it is no longer that digital influences health, but health is influencing digital, this is a precise example of the governance and economic alignment needed to mechanise this process**. The following is an excerpt from the event:

"We use a different platform in Rwanda than what we use globally. So how we operate in Rwanda is a call centre with 100 doctors, and 130 nurses that work part time over the phone. For the period that we have been operational, we have 2.4 million registered users, we have done 1.5 million consultations, and we do 3000 consultations a day. This is for a population of 10 million people. We have signed a contract with the government of Rwanda. In the first quota of next year, we are introducing AI which will be localized and will be used by a third party. That is what we are going to do in the first quarter, in the third quarter we are going to introduce AI to the health sectors. We can also do your own AI triage before you go on to do medical consultation. We have partnered with the government of Rwanda during COVID times. We have seen a huge increase in the number of people calling us. There has been about 125% growth. For Rwanda up until August everyone that was symptomatic was put away in a treatment center, but starting from August, they were only taking critically ill, so people were quarantining from home, and if you are quarantining from home you work with us, and we partnered with the government and doctors focus on critically ill."

3. **Future Skills and Competence of the Health Workforce in Europe. Centre for Workforce Intelligence EU. 2016. <u>Source</u>.**

Key Topics: Health workforce; Efficiency; Training; Capacity

Source Type: EU policy recommendation

Focus: Regional (EU)

Case Made:

Eventually, if too many health care workers are trained, this may lead to economic inefficiency within the health sector. For example the report mentions how training too many health care workers poses no benefit to the economy, and if anything can be seen as a 'waste' because these health care workers will likely emigrate elsewhere to secure work.

Solution Suggested or Implemented:

Do not train more health care workers than are "needed."

[NB: I would like to point out that recommendations like this have come under a lot of criticism during the COVID-19 pandemic. For example, social scientists have argued how, despite being criticized by the EU, Germany continued to fund their health system the past few decades which were seen as 'inefficient.' However, not succumbing to the EU's austerity politics is also the reason why Germany has 'handled' the COVID-19 pandemic well. See this source.]

4. **Working for Health and Growth: Investing in health workforce. The High-Level Commission on Health Employment and Economic Growth. WHO. 2016. Source.**

Key Topics: Inclusion; Health workforce; Long term investment; Blended finance; Community Engagement; Multisectoral; LMIC

Source Type: WHO High-Level Commission

Focus: Global

Case Made:

There is a case to be made, by GHF2030, that the long term investments in digital technologies required to support the improvement of health care can be justified because of their overall implications for economic growth. For this case to be made and realized, the HLC lays out the below recommendations.

Solutions Suggested or Implemented:

    i)   Health as a long-term investment for economic development.

"The health sector is a key economic sector and a job generator. The aggregate size of the world's health sector is over US$ 5.8 trillion per year. Across the OECD countries, employment in health and social work grew by 48% between 2000 and 2014, while jobs in industry and agriculture declined. Demand for health services will continue to increase, creating millions of new jobs

Economic growth and development depends on a healthy population. Around one quarter of economic growth between 2000 and 2011 in low- and middle income countries is estimated to

result from the value of improvements to health. The returns on investment in health are estimated to be 9 to 1."

ii)   Health as a form of inclusive economic growth because it provides 'good' jobs.

"Investments in the health system also have multiplier effects that enhance inclusive economic growth, including via the creation of decent jobs. Targeted investment in health systems, including in the health workforce, promotes economic growth along other pathways: economic output, social protection and cohesion, innovation and health security."

iii)   Blended finance and community engagement.

"Raise adequate funding from domestic and international sources, public and private where appropriate, and consider broad-based health financing reform where needed, to invest in the right skills, decent working conditions and an appropriate number of health workers. Most countries can secure sustainable health financing, assuming continuing growth in public revenue, with necessary priority to the health workforce. *Societal dialogue and political commitment* are critical to drive appropriate macroeconomic reforms and health financing policies. *Public policies can also attract co-investments by the private sector. But there is likely to be insufficient market demand to create jobs to achieve the SDGs in low-income and fragile countries. The Commission believes collective action on financing should be taken in those countries.*

[NB: Note here the last sentence, which **suggests that LMICs are more likely to require and benefit from 'collective action'** – which we might rephrase as global governance and or regulations – than HICs. This is likely a key statement to unpack the different incentives in actors in global governance discussions.]

iv)   Multisectoral collaboration for sustainable investments.

"Promote intersectoral collaboration at national, regional and international levels; engage civil society, unions and other health workers' organizations and the private sector; and align international cooperation to support investments in the health workforce, as part of national health and education strategies and plans. Achieving a fit-for-purpose health workforce requires actions across all sectors involved with the health labour market. These intersectoral processes must engage public and private sectors, civil society, trade unions, health worker associations, nongovernmental organizations, regulatory bodies and training institutions. The Commission believes the role of official development assistance can help operationalize the SDGs and supports national and international accountability mechanisms."

5. The Ghana Telemedicine Program. The Novartis Foundation. 2016. <u>Source</u>.

Key Topics: Philanthrocapitalism; Telemedicine; Blended finance; Sustainability

Source Type: Pharmaceutical Media

Focus: National (Ghana)

Case Made:

Implemented a telemedicine program increases access to health care services.

Solutions Suggested or Implemented:

The Novartis Foundation agreed to fund a year-long pilot project for telemedicine. Following the pilot, Ghana's Ministry of Health assumed the funding role of this project.

6. **Lancet and Financial Times Commission Africa Private Sector Consultation. African Digital Health Alliance Director. Summary.**

Key Topics: Silo; User needs; COVID-19

Source Type: Event

Focus: Regional (Africa)

Case Made:

The participant mentioned that, while digital health is appealing, in practice and governance it often translates to a technology first approach which does not put health first. Further, COVID-19 is a single event, which eventually will go away. This means that all of the digital health investment specific to COVID-19 could not be the most sustainable approach.

Solutions Suggested or Implemented:

The participant first suggests that "digital health" is not actually the right rhetoric. Instead, it would be better to focus on health care which is delivered or enabled by digital technologies. Second, the participant said that to avoid COVID-19 fetishization, it is important to consider how the end user's use case relates to a non-COVID-19 environment, and to what extent that overlaps to plan long term sustainability of COVID-19 digital health technologies.

Country ownership of digital health strategies:

Focus:

> *The is about country ownership of digital health strategies. This mostly includes examples of countries.*

Key Takeaways:

- For LMICs, the ability to 'own' digital health strategies often requires a type of coordination body for the purpose of filtering a surplus of foreign aid or investment. Unlisted here due to time constraints, but also note that often LMICs are forced to develop national digital health strategies as a contingency within some donor funding. This information can be found in the Africa 10 interviews.
- Importantly, ownership of a digital health strategy comes in many forms. For some countries, this does not always mean that the digital health strategy will exist in its own right. For some countries it in fact make more sense to embed national digital health strategies within national ICT strategies due to, for example, existing lacks of infrastructures that need to be addressed for digital health to realize its full potential.

1. **mHealth in Malawi Landscape Analysis. Malawian Ministry of Health and Population. 2018. <u>Source</u>.**

Key Topics: Registration; Coordination; mHealth; Cost effective

Source Type: Report

Focus: National (Malawi)

Case Made:

There are hundreds of mobile applications for health in Malawi. These efforts are largely fragmented, leave gaps in service delivery with some areas oversaturated and others undersaturated, and result in a lost opportunity for cost-effective roles for the private sector.

Solutions Suggested or Implemented:

An annual registration process for mHealth tools provides valuable trend information. The registration should be continued to provide valuable information regarding future policies and standards. The registration should be expanded to include other digital health tools and continue to be conducted by the Ministry of Health.

2. **The Role of Indian Data for European AI. Bertlesmann Stiftung. 2020. <u>Source.</u>**

Key Topics: Data; Data sharing; Regulation; Judiciary; Legislation; Security; Implementation; Personal; Non-personal

Source Type: Private sector market and governance report

Focus: National (India)

Case Made:

This report reviews existing regulation and oversight of data for the purpose of considering how data can be shared, sold, and used for collaboration between the EU (specifically Germany) and India.

Solutions Suggested or Implemented:

The bulk of this report's information is summarized above in *'defining health data and principles for its use.'* It is worth noting this again here because the report details how Indian data is exclusively owned by India until other negotiations have taken place, and appropriate approvals have been given. This can be seen as one mechanism to not only create a digital health strategy ownership, but to maintain literal ownership over digital health.

3. **The Gambian ICT4D-2012 Plan. Gambian Department of State for Communication, Information and Information Technology. 2012. <u>Source</u>.**

Key Topics: ICT; National strategy

Source Type: Government strategy

Focus: National (Gambia)

Case Made:

In the absence of rigid ICT infrastructure, health is more easily addressed from an ICT planning perspective than siloing digital health.

Solutions Suggested or Implemented:

"The ICTs-in-Communities Action Plan among other things is targeted initiatives, programmes and projects aimed at: (i) promoting equal and universal access to ICT services and resources to all communities including rural and under-served communities (ii) encouraging and speeding- up the diffusion of ICTs within the society and economy (iii) supporting access to e-government, **e-health**, e-learning, and e-commerce services via community access points and facilities like telecenters and other types of multi-purpose community access facilities and (v) implementing community-based national ICT programmes and initiatives including telemedicine, multi-purpose community telecenters, teleducation and schoolnets initiatives."

Digital health and data standards in healthcare:

Focus:

> *This is not about how you use health data for solidarity and privacy but how you govern data in health care. It is more specifically about health care rather than decision making, public health, and the whole issue of privacy. This focuses on country examples, trying to adopt some legislative frameworks for the use of health data in health care.*

Key Takeaways:

- When governed appropriately, health data can be used well for research while protecting patient privacy. Notably, this often happens in countries with publicly funded health care systems. Other useful examples not detailed her may include Estonia.

1. **Health Data Governance: Privacy, Monitoring and Research. OECD. 2015. Source.**

Key Topics: UHC, Data solidarity; Data rights;

Source Type: Report

Focus: Global

Case Made:

The OECD wants to work towards minimizing individual data risk, and maximizing data usage. They provide the following overarching principle for data standards in health care.

Solution Suggested or Implemented:

The goals of health data should be to track patient outcomes across all levels of the health system, as well as to ensure the comparability of these results.

2. **Sources of Health Data. University of Oulu, Finland. 2021. <u>Source</u>.**

Key Topics: Data use; Data access; Data source; Data for research

Source Type: University

Focus: National (Finland)

Case Made:

This website compiles government guidelines for the purposes of guiding researchers on how to access health data in Finland.

Solutions Suggested or Implemented:

In short, **significant government regulation has both protected data and made data widely available.** Notably, much of this protection comes through judicial regulation:

"In Finland patient documents are created and updated by health care professionals in electronic format in private, public and occupational healthcare. The medical data include patient journal records, diagnoses, risk factors, laboratory test results, X-ray examinations, medicine prescriptions etc. Patient records are uploaded from local databases to the national Patient Data Repository (Kanta), from which citizens can view their own health records via My Kanta (OmaKanta) service. Recently also dental care organizations have joined or are currently joining the Kanta service.

Access to the the collected health records is controlled according to the legislation (Laki sosiaali- ja terveydenhuollon asiakastietojen sähköisestä käsittelystä). The health care professional can view and update it without the patient's consent only if there is a care relationship to the patient. To ensure confidentiality, access to the Kanta records is possible only for authorized healthcare professionals with special smart cards (strong authentication). Browsing of the patient data is monitored in log files from which it is possible to track who and when the data was accessed.

Medical records can be handed over to another health care organization only if patient has given consent to do this. Citizens can maintain the consents and refusals for their own health data in the MyKanta servi."

The full list of available data for research includes:

Birth cohorts
Biobanks
Patient records
Regional open data
Open access datasets
Data collected by citizens
Data collected by companies
Real-world data
Augmented (synthetic) data

Training the health workforce:

Focus:

> *Training the health workforce focuses on the specifics compared to the section in the first conclusion regarding the health workforce. There is more here on the national level but still some global perspectives.*

Key Takeaways:

- Many have begun implementing digital trainings into medical schools, and providing higher education trainings. This is done both in person but also remotely, certainly with a rise in this due to both the remote and the digital demands of COVID-19. This may be an interesting trend to observe.
- There, uniquely, seems to be consensus on this topic, there is just little research apparently and it comes out more so in consultations, events, etc. The key points of difference in providing trainings is what to train on. This often varies to national context and need; for example, basic computer skills, knowledge of how to us an EMR system, or more specific technologies due to health systems' needs (i.e. COVID).

1. **Global Strategy on Digital Health. WHO. 2020-2025. <u>Source</u>.**

Key Topics: Interdisciplinarity; Shifting burden of disease; horizontal health systems

Source Type: WHO Strategy

Focus: Worldwide

Case Made:

To train the future health workforce, it is important to have interdisciplinary skillsets. On a health systems level, it should also be considered how to move away from vertical health care approaches to horizontal approaches which can be facilitated through shifting disease burdens, the rise of digital health, and the training of the future health workforce.

Solutions Suggested or Implemented:

"Planning for capacity-building includes workforce assessment, ranging from professionals in information and communication technologies to health workers providing care services. Being intrinsically multidisciplinary and interdisciplinary, capacity-building entails instilling capabilities, attitudes and skills which may range from computer sciences, strategic planning, finance and management to health sciences and care delivery, depending on the digital health application and its context. Assessment of the workforce should also consider the implications for the health labour market of introducing digital technologies and their management. This objective would

call for countries to move away from the current disease focused systems to an integrated approach with the patient at the centre."

2. **Digital Implementation Investment Guide. WHO. 2020. <u>Source</u>. <u>Summary available as NFF.</u>**

Key Topics: Health workforce; Training; Leadership; Citizen participation

Source Type: WHO Guideline

Focus: Worldwide

Case Made:

To fully invest into digital health, it is essential to have an appropriate workforce which both understands how to use digital technologies, but also has an understanding of their value in order to be able to expand their possibilities. To this end, DIIG offers the following guidelines.

Solutions Suggested or Implemented:

i)   Establish training programs for each cadre of health care worker and managers. This should include intensive introductory training followed by refresher trainings regularly.

ii)   Identify champions at different levels to help inspire and motivate others for the digital transition. This transition may take time and require multiple data entries at the start.

iii)   Involve end-users to ensure cultural preferences are included in implementation design.

iv)   Demonstrate how the data collected will be used in the health system to encourage those collecting data. Successful implementation requires buy-in from local health workers.

3. **Preparing a Healthcare Workforce for the 21st Century: the challenges of chronic conditions. WHO. 2005. <u>Source</u>.**

Key Topics: Health workforce; Key competencies; Training

Source Type: WHO report

Focus: Worldwide

Case Made:

This report is dated, but the skills it recommends still hold some pertinence. The report recommends basic skills that need to be included in (medical) education and training in order to understand the role of digital upon the patient's life as well as to fully utilize the role of digital in improving health care outcomes.

Solutions Suggested or Implemented:

"The use of computer technologies in health care is widespread, even in the poorest health care systems (77). The so-called "digital divide" is shrinking as developing countries increasingly have access to personal digital assistants, satellite technology (instead of relying on land lines), and global networks of providers (see Figure 2). Through these advances, information and evidence about health care can be shared, expertise of scarce specialists can be pooled, and care for patients can be integrated. To leverage available technology, the health care workforce needs a number of basic skills recommended as necessary abilities (2):

- using word-processing and data analysis software
- searching online and internal databases
- retrieving and managing data
- being aware of data security systems related to the use of patient information."

4. Interview. Africa 10 Countries: US CDC Uganda. 2020.

Key Topics: Health workforce; Training; Higher education

Source Type: Interview

Focus: National (Uganda)

Case Made:

There is a lack of health care capacity trained in digital technology preventing the full realization of the potentials of digital health. To address this, Uganda is attempting to do this horizontally through the education system itself.

Solutions Suggested or Implemented:

Makerere University is supporting health workers, including community health care workers, in training through higher education programmes and short courses. Makerere University is supporting health worker training, including long term education programmes and short term training for community health workers. This is being done by a combination of trainings near to their location and online learning. A slight limitation to this model is that young health care workers are more likely to benefit from these modules than older health care workers, which are more resistant to change.

5. Interview. Africa 10 Countries: Mail Government Representative. 2020.

Key Topics: Medical training; Health workforce; Higher education

Source Type: Interview

Focus: National (Mali)

Case Made:

There is a lack of health care capacity trained in digital technology preventing the full realization of the potentials of digital health. To address this, Mali is attempting to do this horizontally through the education system itself.

Solutions Suggested or Implemented:

Government claims to be one of the very few countries in Sub-Saharan Africa to rely on digital health specialists working in its universities, civil society organizations and NGOs. Mali has also **been teaching a compulsory module on e-health information in its medicine schools for the past four years**.

6. **Interview with Private Sector Start-Up. Cameroon. Africa 10 Countries. 2020.**

Key Topics: Youth; Scholarships; Start-ups

Source Type: Interview

Focus: National (Cameroon)

Case Made:

Njang founded HERO Cameroon in 2015 to support outreach projects & youth capacity building, especially for medical students in SW Cameroon. The MyHealth platform helps to bridge gaps between doctors and patients. The interviewee makes the case that young people need more opportunities for training, opportunity specifically limited by finances generally, to be able to learn and contribute to digital health technologies.

Solutions Suggested or Implemented:

Digital literacy needs to be part of the curriculum for young people. More funding, training and scholarships are needed for young people so they can be ready to take the lead.

7. **Interview with USAID. Ethiopia. Africa 10 Countries. 2020.**

Key Topics: Health workforce; Training; Higher education

Source Type: Interview

Focus: National (Ethiopia)

Case Made:

There is a lack of health care capacity trained in digital technology preventing the full realization of the potentials of digital health. To address this, Ethiopia is attempting to do this horizontally through the education system itself.

Solutions Suggested or Implemented:

Ethiopia has implemented four key actions in relation to training their health workforce: [1] 5 universities are being supported to become centres of excellence in using and providing trainings in digital tools. These include reporting tools (DHIS), mobile apps (e.g used by community health workers to track health services, being put into local languages), digital health records, and E-health architecture. [2] Local capacity is being grown. For example, while Ethiopia used to depend on technical support from Norway to manage DHIS, now Gondar university is providing national training, and even to other countries in the region. [3] Health science colleges are being established. [4] Existing health info technologists are not trained on the latest systems, and the college curriculum hasn't kept up with the changes. To strengthen capacity, new curriculum being used to train new graduates and give refresher training.

Informed patients, enfranchised citizens:

Focus:

> *There is some overlap here on regulating powerful players. This includes initiatives by WHO to fight misinformation. How are big players drivers of misinformation? Also how do we enfranchise citizens in literacy.*

Key Takeaways:

- The social aspects of the digital have both positive and negative impacts upon health. Before the COVID-19 pandemic, there were more conversations about how individuals used social media and more as sources for health advocacy, sharing experiences where health may be inaccessible and finding solutions. More recently, there is an increased scepticism with the social aspect of the digital in its spread of misinformation and the deleterious health impacts it may have. It should be noted that these debates are open, and highly context specific, inhibiting any claims to be made if social media is 'good' or 'bad' for health; it is a variable amongst wider cultural, economic, and political tensions.
- Proposals to regulate social media are equally contested. It is useful to view these regulatory proposals as a triad between citizen, media, and state, all with competing aims and levels of trust. Regulatory intervention upon information sources makes citizens loose trust in the media and the state. A lack of regulation similarly makes citizens loose trust. Contextually dependent balance is important to craft regulatory interventions. The EU has some of the most stringent misinformation policies (3).
- More pragmatic examples of misinformation regulation are often indirect. The examples below include using public sector funds to invest in private sector companies which do not spread misinformation, and even counter it; amplifying community level voices; implementing campaigns which increase health literacy and as such the ability to identify health misinformation.

1. **The Impact of Online Social Networks on Health and Health Systems: A Scoping Review and Case StudiesGriffiths et al. 2015. [Source](#).**

Key Topics: Social media; Mental health; social movement; health system

Source Type: Academic article

Focus: Online

Case Made:

"Interaction through online social networks potentially results in the contestation of prevailing ideas about health and health care, and to mass protest where health is put at risk or health care

provision is wanting. Through a review of the academic literature and case studies of four social networking health sites (PatientsLikeMe, Mumsnet, Treatment Action Campaign, and My Pro Ana), we establish the extent to which this phenomenon is documented, seek evidence of the prevalence and character of health-related networks, and explore their structure, function, participants, and impact, seeking to understand how they came into being and how they sustain themselves."

Solutions Suggested or Implemented:

Key findings in this study show that social media influences how we are able to share our experiences of health, and mobilize on common dissatisfactions with health care experiences. The private sector holds a lot of power in deciding what is able to be shared and viewed, and this ability to **share health care experiences on social media** may be an important area to address in a recommendation for the Report or private sector regulation more broadly as a characteristic.

"Results indicate mass protest is not arising from these established health-related networking platforms. There is evidence of changes in policy following campaigning activity prompted by experiences shared through social networking such as improved National Health Service care for miscarriage (a Mumsnet campaign). Platform owners and managers have considerable power to shape these campaigns. Social networking is also influencing health policy indirectly through increasing awareness and so demand for health care."

2. **Lancet and Financial Times Commission Africa Private Sector Consultation. Praekit.org South Africa. 2020. Source.**

Key Topics: Private sector; Misinformation; Scale; WHO; Local to global

Source Type: Event.

Focus: National (South Africa), (scaled to) Global

Case Made:

During the COVID-19 pandemic digital technologies became more common and more effective in delivering health care. One private sector solution combined their existing technology with a COVID-19 misinformation and accurate information platform.

Solutions Suggested or Implemented:

"Work primarily in SA and SEA. They focus on using simple technologies such as SMS, USSD, to connect patients to improve health and health outcomes. Patients are supported with information that help them to care for themselves to go to the right services at the right time. Health professionals are assisted with training support. From health workers and patients national departments of health get critical information on how the healthy system works. This allows things to reach a veery large scale. One of our projects in SA helps 80% of the mothers giving birth each

year, and 33000 nurses are connected through that program. COVID-19 has been an accelerator for DH, we launched a program to provide information and prevent misinformation which was taken up by WHO globally for WhatsApp and messaging, which has since been rolled out to `10 other ministries of health in Africa. It provides information as well as allows them to check their risk for COVID-19. That is provided to the national health ministries. It has been amazing to see how quickly people have adopted digital services in the time of COVID-19. There has been a shift from resistance to willingness to adopt technologies."

3. **Media Freedom, Regulation and Trust: a systematic approach to information disorder. Council of Europe. 2020. Source.**

Key Topics: Misinformation; Regulation; Trust

Source Type: Policy brief

Focus: Regional (EU)

Case Made:

There is a large amount of misinformation circulating, particularly with the onset of the COVID-19 pandemic. This Report suggests several examples of successful misinformation efforts as well as cautions against overregulation and hasty actions which may decrease trust in media and more.

Solutions Suggested or Implemented:

"In 2016 and 2017 policymakers attempted to develop legislative responses to the problem of so-called "fake news", in the context of a wider debate about harmful and illegal content. State actions to control the spread of misinformation and disinformation take the form of (i) new laws on the liabilities of media companies, internet intermediaries, and end-users responsible for spreading misinformation and disinformation; (ii) state-funded agencies that have a remit to identify, sometimes to report and monitor processes of disinformation and misinformation; (iii) standard setting such as adopting new definitions of misinformation and disinformation including codes of conduct.

The UK has set up a National Security Communications Unit, tasked with combating disinformation by state actors and others. Sweden's Civil Contingencies Agency (MSB) has set up a task force on protecting integrity of elections; government has adopted broader security strategy (July 2018). A separate "psychological defence authority" was also announced, but not yet inaugurated (2018). Denmark set up an Inter-ministerial task force to counter disinformation and educate soldiers on how to do so effectively (2017). Belgium engaged in an online consultation on proposed solutions to disinformation and public debate (2018), and the UK published a new White Paper in April 2018.

International organisations have also been centrally involved in the response. The NATO/EU Centre of Excellence for Countering Hybrid Threats researches disinformation campaigns and publishes examples of fake news. The European External Action Service created East StratCom Task Force: EU vs. Disinformation campaign. The European Commission has made proposals for election cooperation, cybersecurity protection, and fighting disinformation at the European Parliament elections in May 2019."

4. Why is it so Difficult to Regulate Disinformation Online. Epstein. 2020. Source.

Key Topics: Misinformation; Regulation; Trust

Source Type: Academic

Focus: Global

Case Made:

There is a large amount of misinformation circulating, particularly with the onset of the COVID-19 pandemic. This paper suggests several examples of successful misinformation regulation principles.

Solutions Suggested or Implemented:

"After analyzing these challenges, Epstein suggests four standards for effective disinformation. First, disinformation regulation should target the negative effects of disinformation while consciously minimizing any additional harm caused by the regulation itself. Second, regulation should be proportional to the harm caused. Third, effective regulation must be able to adapt to changes in technology and disinformation strategies. And fourth, regulators should be as independent as possible from political and corporate leadership."

5. Countering Misinformation with Lessons from Public Health. Center for Strategic and International Studies. 2019. Source.

Key Topics: Misinformation; Regulation; Trust; Civil society

Source Type: Policy guidelines

Focus: Global (USA)

Case Made:

This is one of the few easily accessible sources which was written before the COVID-19 pandemic. The policy brief stresses the necessity of community based approaches, and empowering citizens with knowledge (health literacy) rather than direct (social) media regulation of misinformation which can work to deter further trust between citizen, media, government triads.

Solutions Suggested or Implemented:

"**Coordinate media literacy and awareness programs to educate society about the risks of misinformation, subliminal advertising, and polarization.** Curriculum should remain politically neutral but encourage best practices like source-vetting and comparing sources. Social media companies also could adjust algorithms to de-weight automated activity and expose users to content outside of their ideological sphere. Specific programs should be delivered to the most vulnerable demographics by trusted advocacy groups such as the AARP.

Establish an international coalition that can bring together stakeholders from across democracies, modeled after the multilateral Global Health Security Agenda (GHSA) forum that works to build countries' capacity to prevent, detect, and respond to infectious disease threats. GHSA members split into task forces, called "action packages," which ensure countries are adhering to internationally agreed-upon capabilities to respond to outbreaks. The misinformation coalition could form these task forces as a forcing function to bring together governments, social media companies, and civil society to align efforts and facilitate information and data sharing. A large-scale multilateral effort also could serve as a platform for society to establish goalposts for levels of intervention consistent with democratic norms.

Institute an NGO to intervene in at-risk communities online. Functioning like an online Red Cross or Doctors Without Borders, this NGO would be best positioned to provide intervention at the individual level while remaining politically neutral. Social media platforms could provide data and network analysis without intervening at the individual level themselves. Government could provide funding but stay distant to avoid undue surveillance or censorship. Intervention should include both personal outreach to online leaders and increasing all individuals' exposure to new information so that followers can come to their own conclusions.

Invest in R&D to address evolving threats. Government should publicly fund public research into countering evolving misinformation and disinformation threats. Government also should provide financial incentives for social media platforms to develop counter-disinformation tools that can be built into platforms or distributed to individual users at scale."

6. **WHO: immunizing the public against misinformation. 2020. <u>Source</u>.**

Key Topics: Misinformation; Regulation; Trust; Private sector; Awareness

Source Type: WHO Newsroom

Focus: Global

Case Made:

There is a large amount of misinformation circulating, particularly with the onset of the COVID-19 pandemic. This paper suggests several ways that misinformation can be controlled beyond exclusively the regulatory approach which is often packed with limitations.

Solutions Suggested or Implemented:

First, the WHO throughout the COVID-19 pandemic has worked with and invested in private sector companies which employ 'social listening practices' on social media websites. Social listening technologies are able to identify locations where misinformation is being spread, and interject useful information. In other words, these private sector collaborations turn the technologies of economies of misinformation back upon themselves.

Second, the WHO hosted its first multinational infodemic conference to support capacity building of methods to address misinformation.

Third, the WHO, like others, strongly encourages community voices to be heard and utilized in the process of addressing misinformation. For example, a community health care worker is often more likely to be able to provide vivid and humanly relatable accounts of reality than is a Geneva based policy maker.