



香港中文大學醫院
CUHK
Medical Centre

Digital Health in the Post-Covid New World

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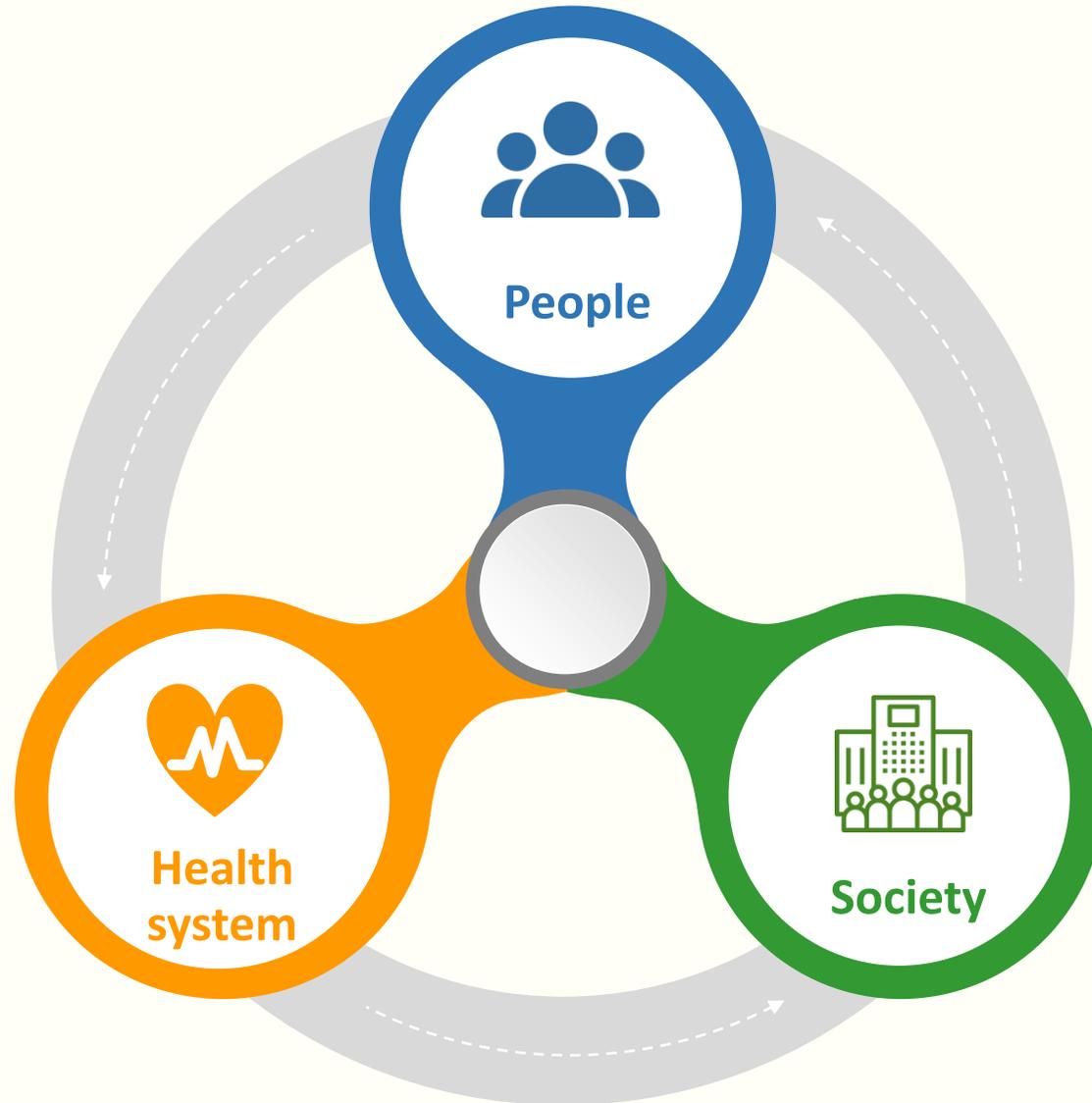
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20 April 2023



*It won't be
the same...*



Health System Challenges



From sickness to health and wellbeing

- Covid-19 here to stay
- Pandemic of chronic diseases



Between peace time and war time

- Dynamic capacity
- Beyond hospitals



Whole system changes

- System-wide approach
- Make it affordable



Health System – Post-Covid Changes



From sickness
to health and
wellbeing

Re-design health protection



Testing, screening, vaccination



Public health @ home

Public health @ old age homes

Re-design primary care



Who, Where, How

Between peace
time and war
time

Dynamic capacity



Flexibility – Prepare facilities that can be readily converted into isolation rooms and ICUs



Agility – Build at green fields community isolation, treatment, and laboratory facilities

Beyond hospitals



Go mobile – Test, trace, fence, care



Go digital – Digital front door, virtual consultation, tele-pharmacy, virtual ICU



Go community – Home care, community pharmacy

Whole system
changes

System-wide approach



Public-private partnership – Private sector role, elective operations



Payment reforms – Reimbursement for tele-medicine



Government regulation – Tele-pharmacy

Make it more affordable

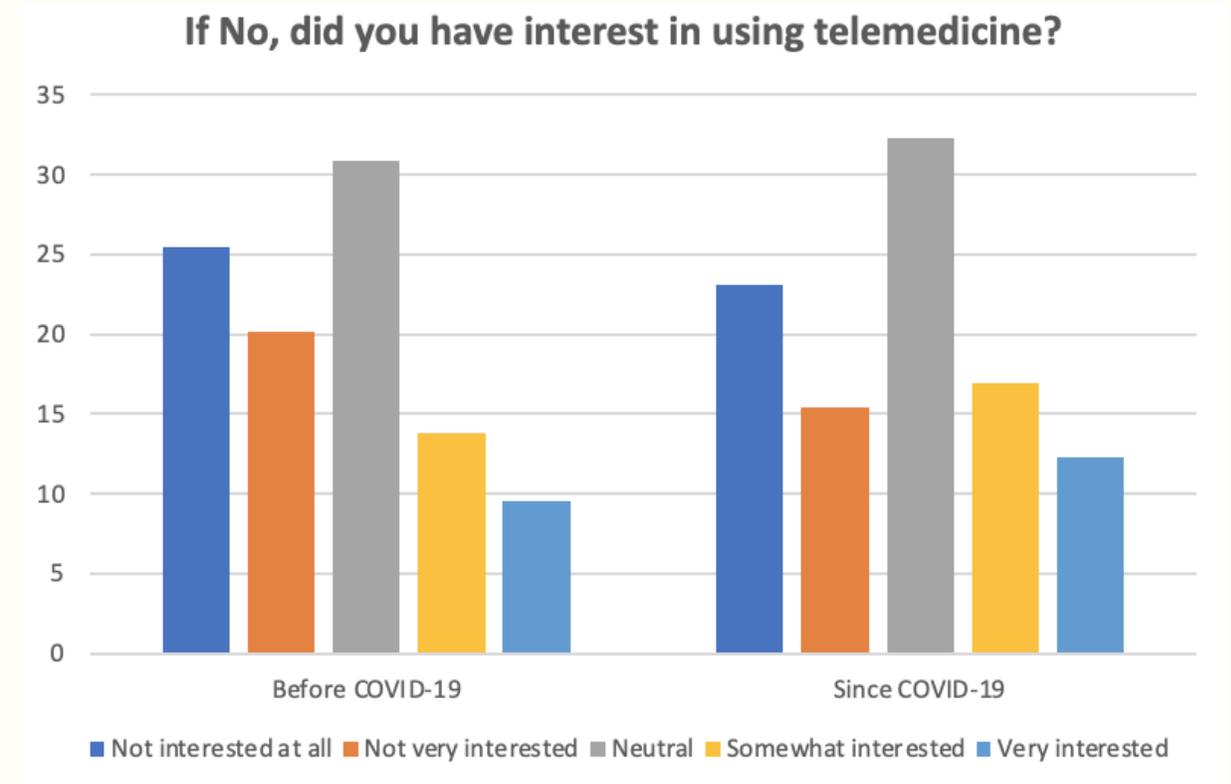
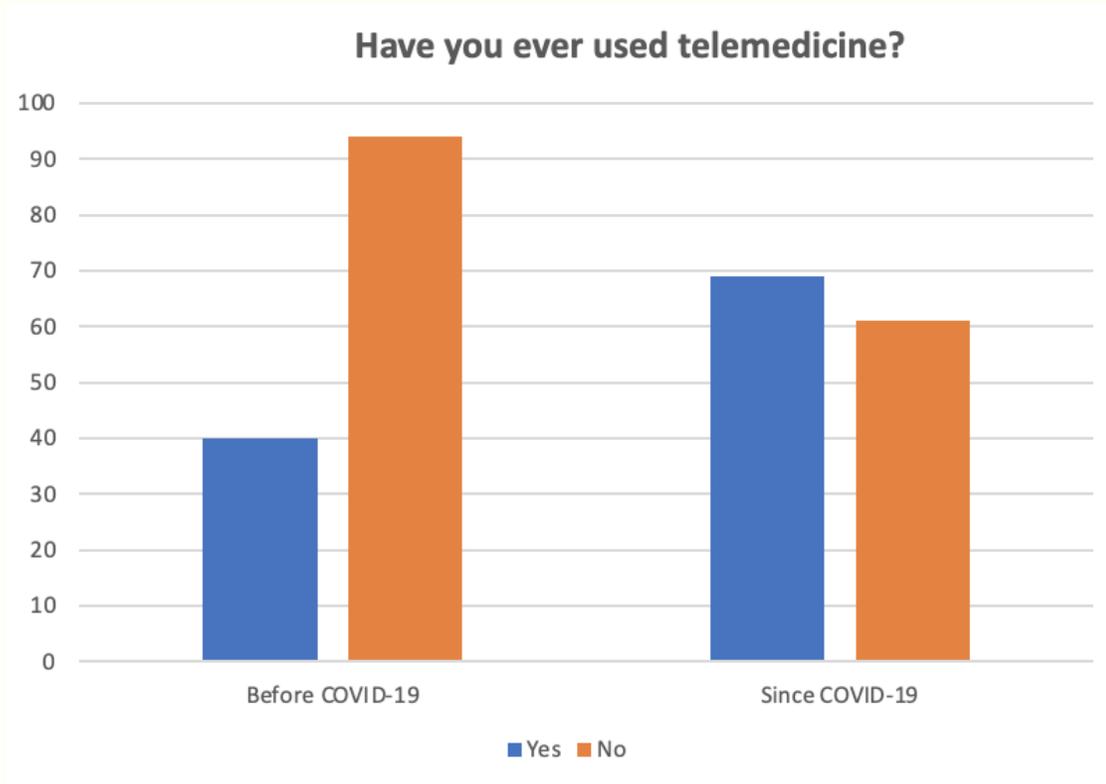


Human resources – Multi-skilling, cross-specialty collaborations



Supplies chain – Personal Protective Equipment (PPE), warehouse and logistics hub

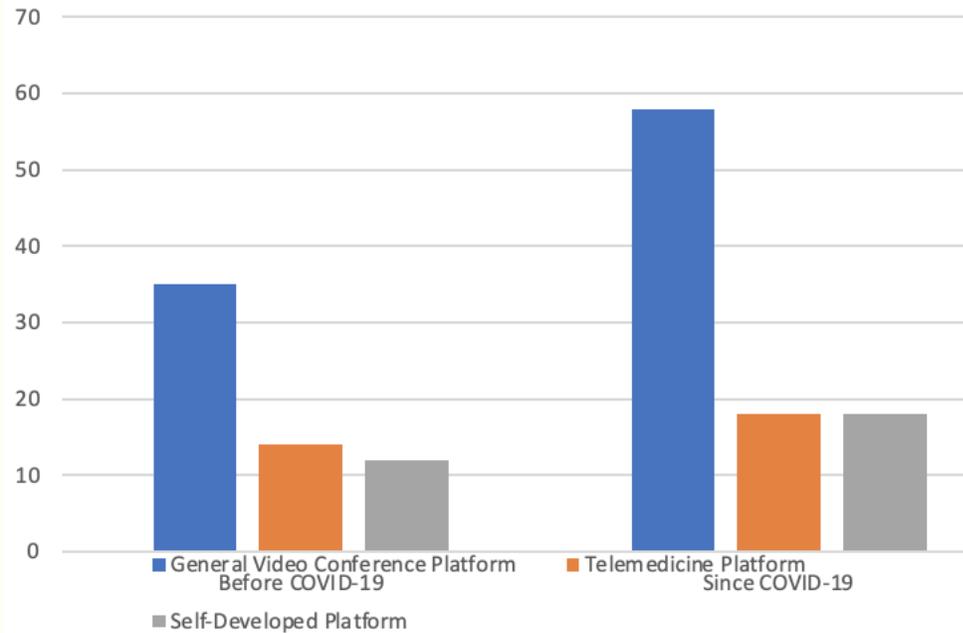
Telemedicine After 5th Wave in 1st Quarter 2022



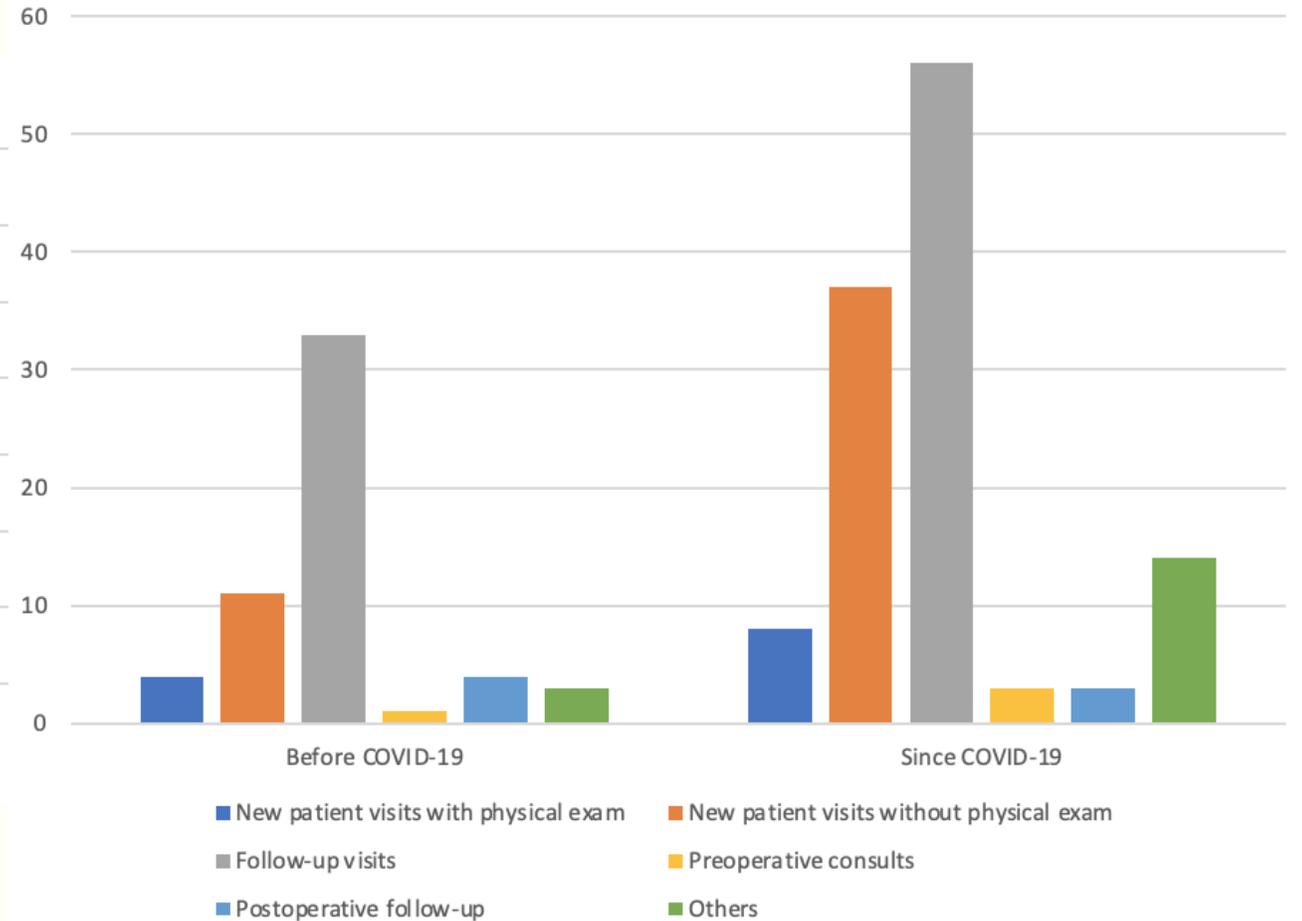


What the Doctors Do ...

Figure 3 Which types of platform did you use ?



What types of patient visits did you use telemedicine ?





Making Healthcare Accessible

- People under home isolation or quarantine
 - Home staying elderly persons or patients with chronic illnesses
 - Tele-consultation and Tele-drug dispensing
 - Increased use of Chinese Medicine
 - Supporting residents in remote areas
- An AI enabled tele-consultation service on Covid-19 - https://www.youtube.com/watch?v=TjtvZ_JMh1k
 - A telemedicine service providing medical consultation by Chinese Medicine doctors in the remote community in Tai O - <https://www.youtube.com/watch?v=FqaNSid3lL8>

The Next Wave of Healthcare Innovations: The Evolution of Ecosystems

(McKinsey, June 2020)



Healthcare ecosystems of the future will be centered on the patient.

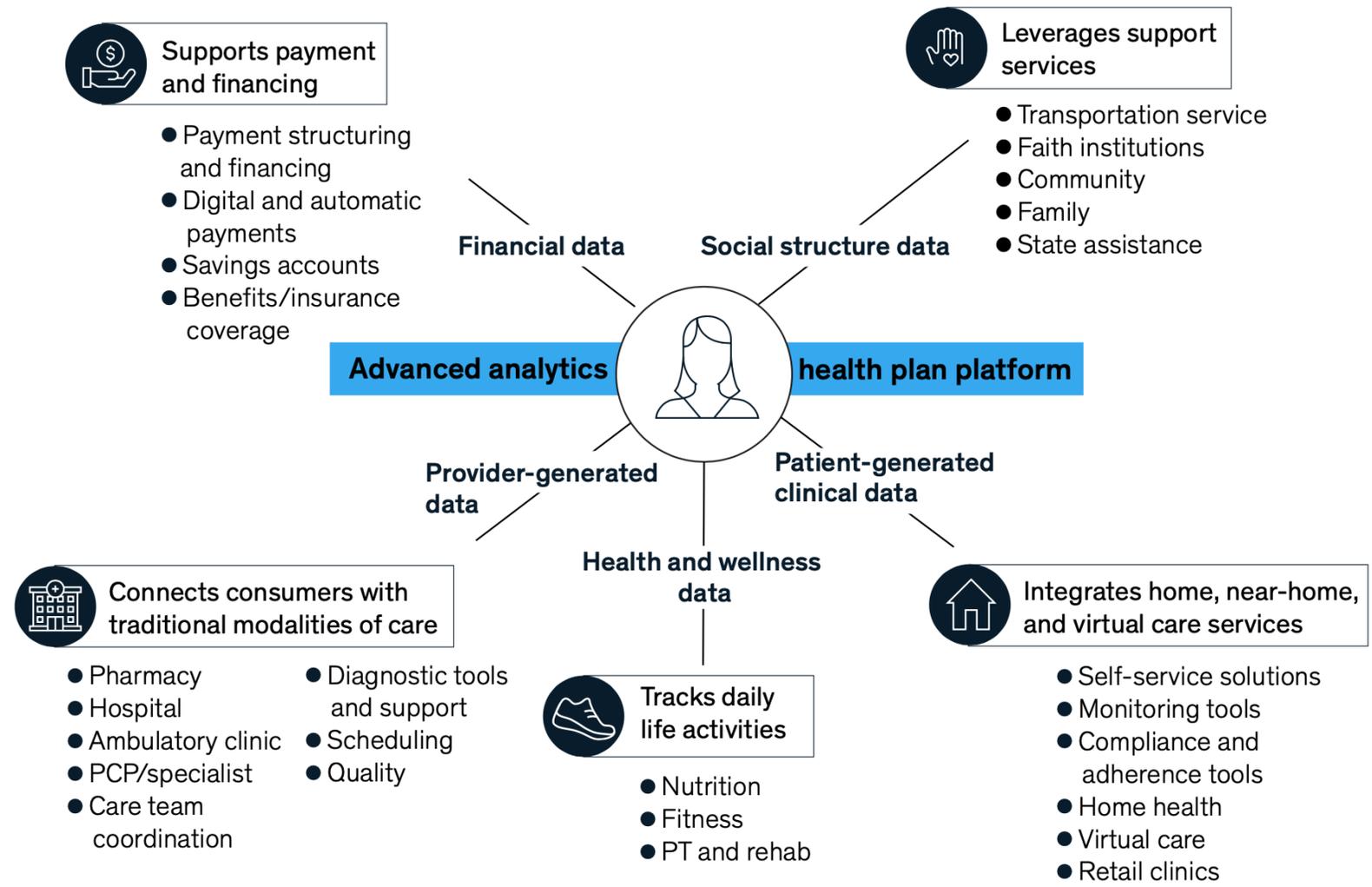


Exhibit 1: Digital Health Tools in the Patient Journey During the COVID-19 Pandemic



Source: IQVIA Institute, Jun 2021

(IQVIA, 7-2021)



The Digital Ecosystem

- Broadening access to primary care
 - Telemedicine
 - E-pharmacy
- Improving health and wellness
- Expediting access to acute care
 - Digital front doors
 - Singapore HealthHub (<https://www.healthhub.sg>)
 - China Internet Hospitals
- Managing and monitoring diseases
 - Digital chronic disease management platforms
 - MedLinker (<https://medlinker.com>)



Primary Healthcare Blueprint



1. Develop a community-based primary healthcare system
 - District Health Centre Model
 - One person one Family Doctor
 - Chronic Disease Co-care Scheme
2. Strengthen primary healthcare governance
 - Primary Healthcare Commission
 - Primary Care Register
3. Consolidate primary healthcare resources
 - Strategic Purchasing Office
4. Reinforce primary healthcare workforce
 - Manpower planning and training
 - Primary healthcare professional roles
5. **Improve data connectivity and health surveillance**
 - **eHealth Account**
 - **Population health surveillance**



中共中央办公厅 国务院办公厅印发《关于进一步完善医疗卫生服务体系的意见》（国务院公报2023年第10号）

国务院公报 2023-04-11 17:09 Posted on 北京

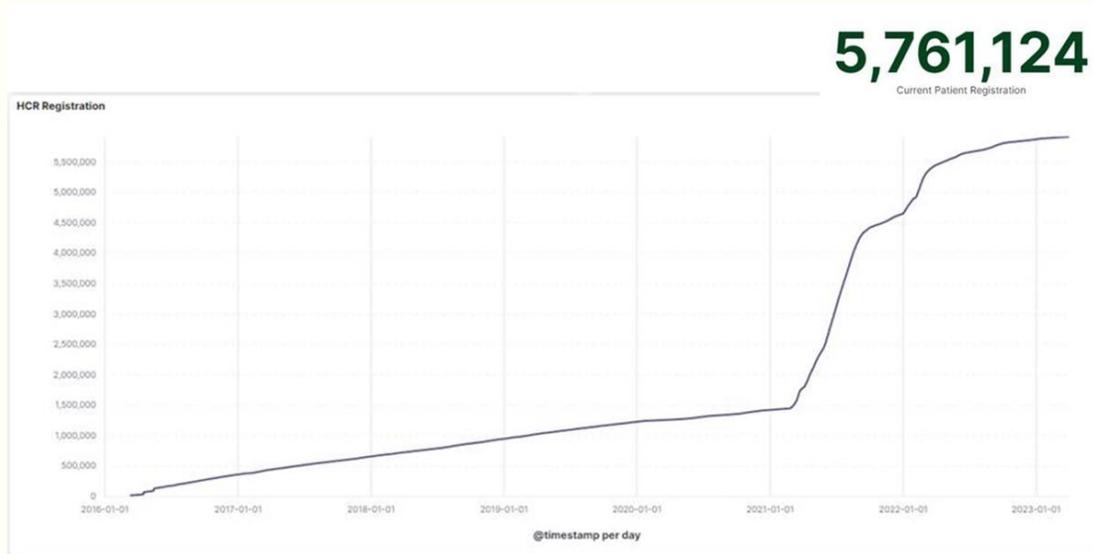
中共中央办公厅 国务院办公厅印发 《关于进一步完善医疗卫生服务体系的意见》

（五）发挥信息技术支撑作用。发展“互联网+医疗健康”，建设面向医疗领域的工业互联网平台，加快推进互联网、区块链、物联网、人工智能、云计算、大数据等在医疗卫生领域中的应用，加强健康医疗大数据共享交换与保障体系建设。建立跨部门、跨机构公共卫生数据共享调度机制和智慧化预警多点触发机制。推进医疗联合体内信息系统统一运营和互联互通，加强数字化管理。加快健康医疗数据安全体系建设，强化数据安全监测和预警，提高医疗卫生机构数据安全防护能力，加强对重要信息的保护。

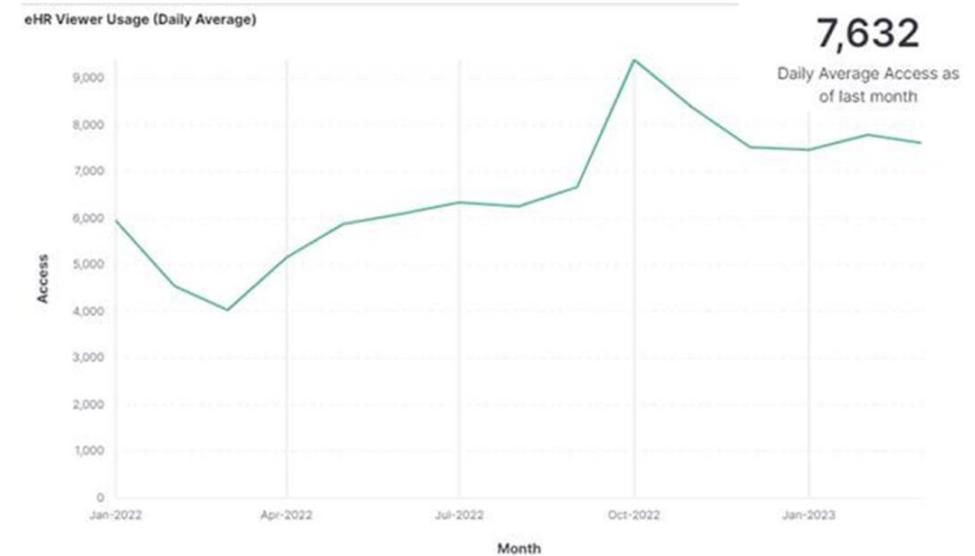


Use of eHRSS

Cumulative no. of Patient Registration
(as of March 2023)



Viewer -Daily Average Access



Comparison of Regulation of Telehealth in Hong Kong and Worldwide



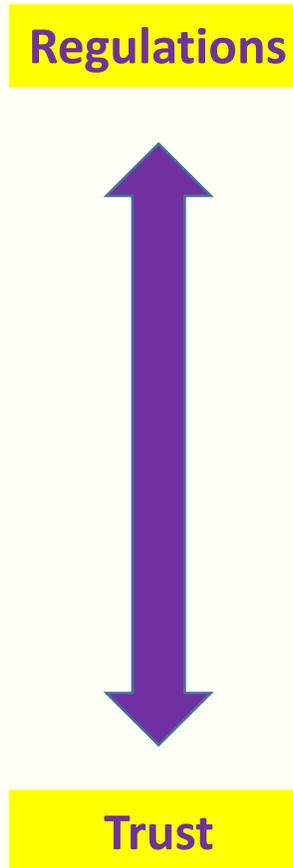
| | Hong Kong | Other Jurisdictions |
|-----------------------------------|--|--|
| Patient evaluation | <ul style="list-style-type: none"> Practitioners determine telemedicine use based on clinical context and clinical goals Appropriateness of telemedicine technology applied to be compatible with those two factors | <ul style="list-style-type: none"> Prohibit telemedicine usage on first-time consultations with patients (Mainland China, Japan) Patient type restriction e.g. chronic disease patients (Mainland China) |
| Data privacy | <ul style="list-style-type: none"> Require proper informed consent from the patient Encryption of data from teleconsultations | <ul style="list-style-type: none"> Require proper informed consent from the patient (all) Management of sensitive patient data included (UK, Australia, EU) |
| Prescription through telemedicine | <ul style="list-style-type: none"> No specific reference on prescribing the types of medications through telemedicine | <ul style="list-style-type: none"> Does not allow online prescription of medications/controlled substance without prior physical evaluation (US, Netherlands) |
| Telemedicine platform | <ul style="list-style-type: none"> Specific types of telemedicine platform that is suitable to be used not addressed | <ul style="list-style-type: none"> Telemedicine platforms need to be compliant with relevant regulations/registered (US, UK) |

(Wu, 2023)



Issues to Address

- Cross-sector contribution to eHRSS
- Cross-border health data/ record sharing
- Regulations on Telehealth
- Privacy and security
- Ownership and portability
- Permissibility and control
- Scope and standards
- Technology platform
- Volume and scalability





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Thank You