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Introduction to Telemedicine

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What is Telemedicine?

- “Telemedicine” (which term is used interchangeably with “Telehealth” in these Guidelines) refers to the **systematic provision of healthcare services** over physically separate environments via Information and Communications Technology (ICT).
- Telemedicine is increasingly recognised as a means to provide healthcare services more readily and in a timely manner to the population.



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What is Telemedicine?

- Ministry of Health has developed a set of **National Telemedicine Guidelines for Singapore**, to ensure patient and provider safety and to provide a holistic approach to execute the delivery of Telemedicine services in Singapore
- Encompasses various modalities of telemedicine care
 - Tele-Collaboration
 - Tele-treatment
 - Tele-monitoring
 - Tele-support



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Telemedicine after Covid-19

- The demand for social distancing has prompted various health insurers and medical groups to expand telehealth. In the US, most commercial payers now accept telehealth.
- Medical organisations have also endorsed the use of telemedicine (E.g. American Medical Association, CDC)
- Locally, during the circuit breaker, MOH urged medical practitioners to adopt telemedicine practice for chronic disease consultations and medication refill



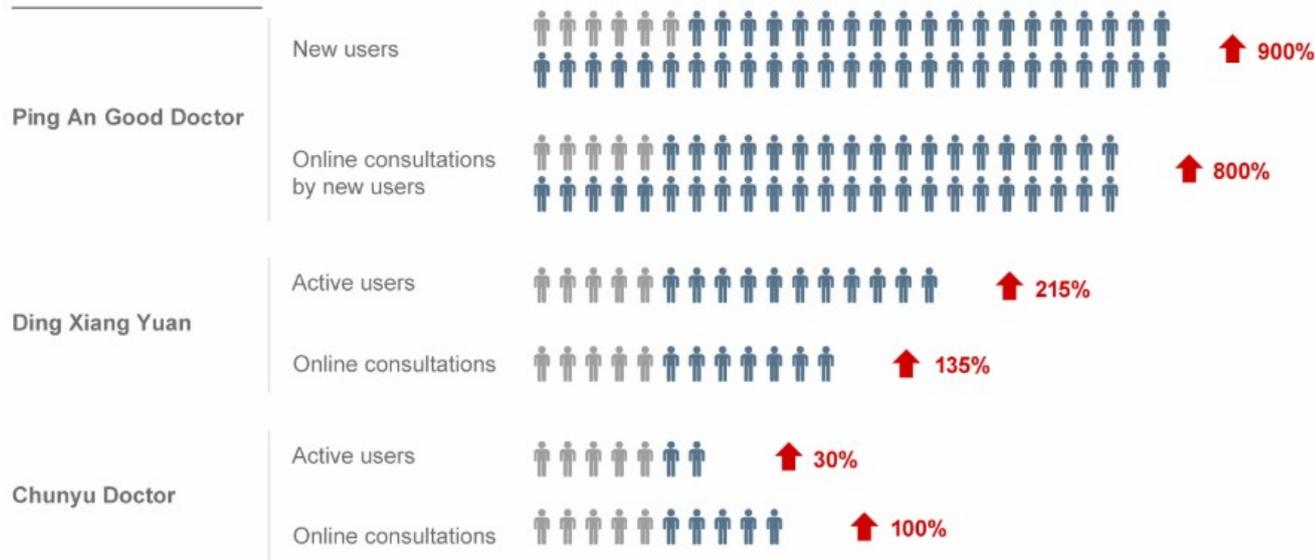
Telemedicine after Covid-19

Coronavirus has accelerated the growth of China's online medical platforms

Percentage increase, December 2019 to January 2020

 Dec 2019  Jan 2020

Platform



Sources: Company websites for Ping An Good Doctor, Ding Xiang Yuan and Chunyu Doctor

Bain. 2020. *Covid-19 Accelerates The Adoption Of Telemedicine In Asia-Pacific Countries*. [online] Available at: <<https://www.bain.com/insights/covid-19-accelerates-the-adoption-of-telemedicine-in-asia-pacific-countries/#>> [Accessed 10 June 2020].



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Telemedicine after Covid-19

TELEHEALTH DEALS AND DOLLARS

Deals doubled from Q4'19, reaching record high

Telehealth funding and deal count, Q2'17 - Q1'20



CBINSIGHTS



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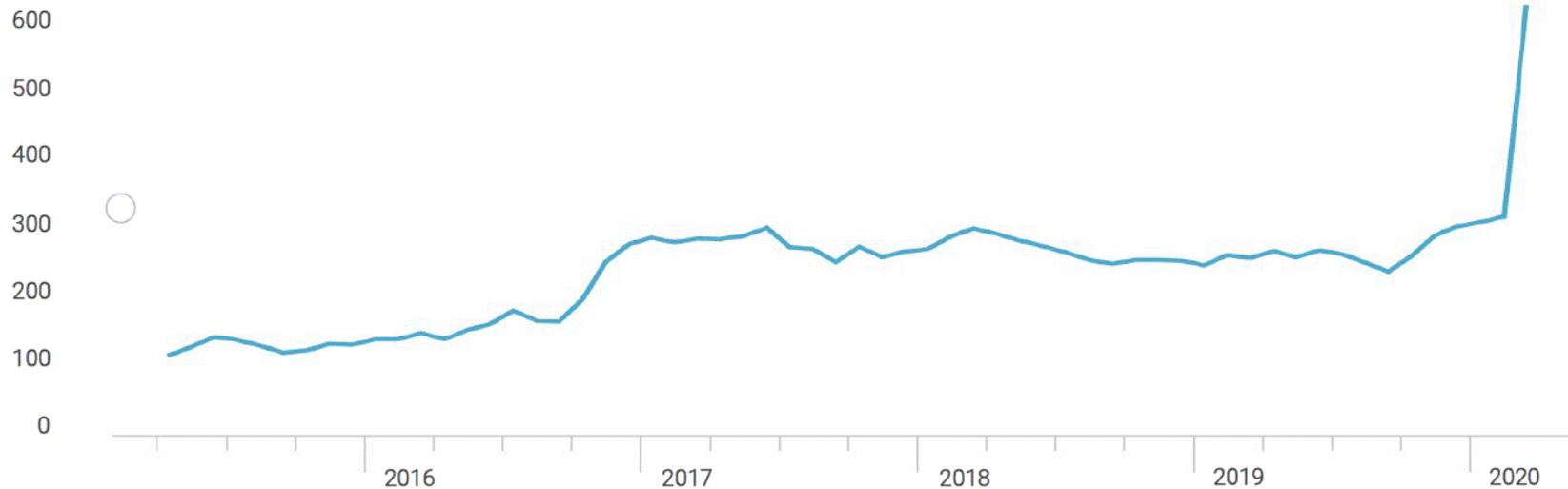
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Telemedicine after Covid-19

Q1'20 telehealth mentions doubled from Q4'19 levels

Monthly news mentions, April '15 – March '20

News mentions



● telehealth OR telemedicine OR virtual care

CBINSIGHTS



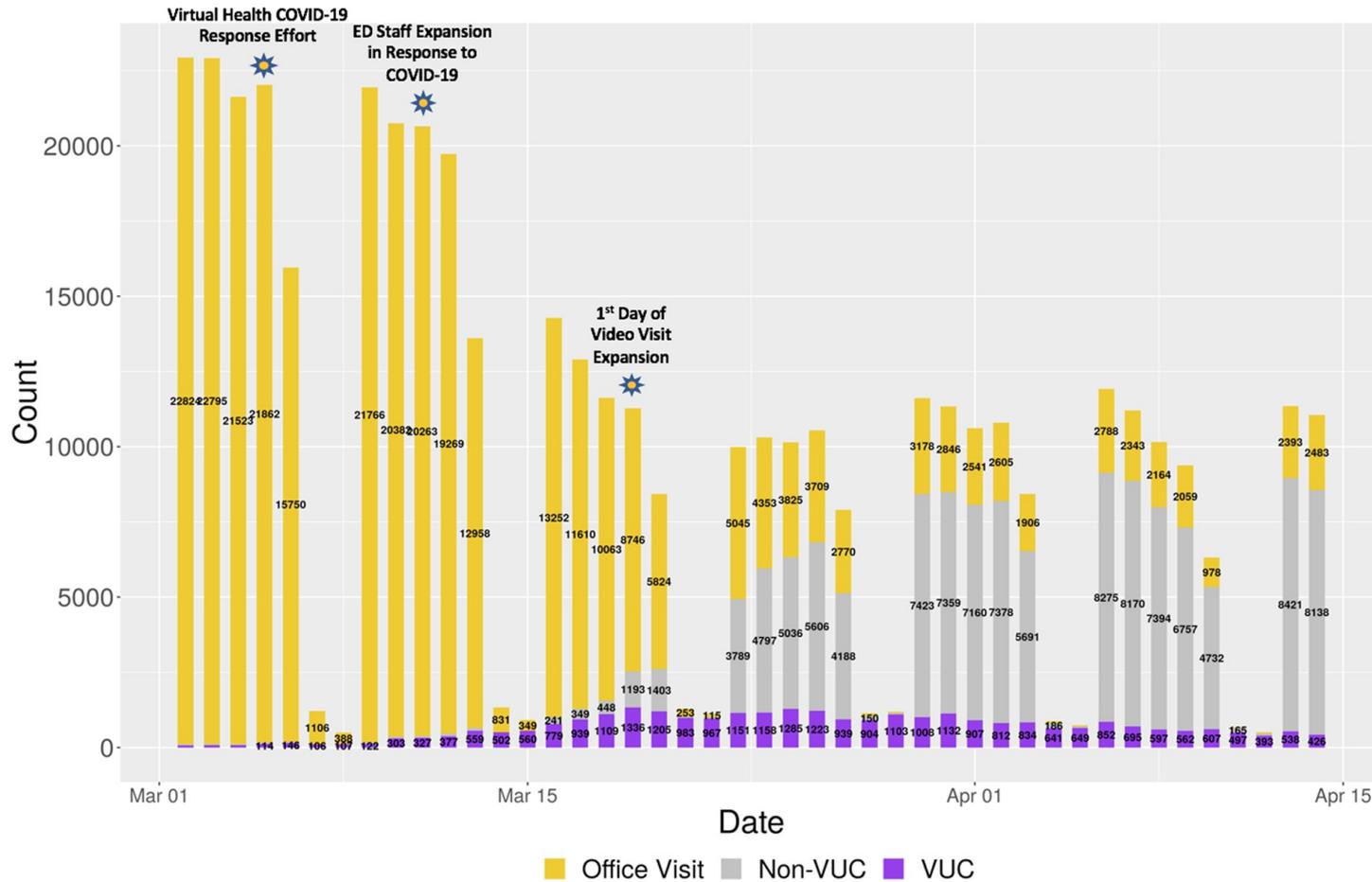
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Telemedicine after Covid-19

- Feasibility and impact of video-enabled telemedicine use among patients and providers and its impact on urgent and nonurgent healthcare delivery from one large health system (NYU Langone Health) at the epicenter of the coronavirus disease 2019 (COVID-19) outbreak in the United States.
- Between March 2nd and April 14th 2020, telemedicine visits increased from 102.4 daily to 801.6 daily. (683% increase) in urgent care after the system-wide expansion of virtual urgent care staff in response to COVID-19.

Telemedicine after Covid-19



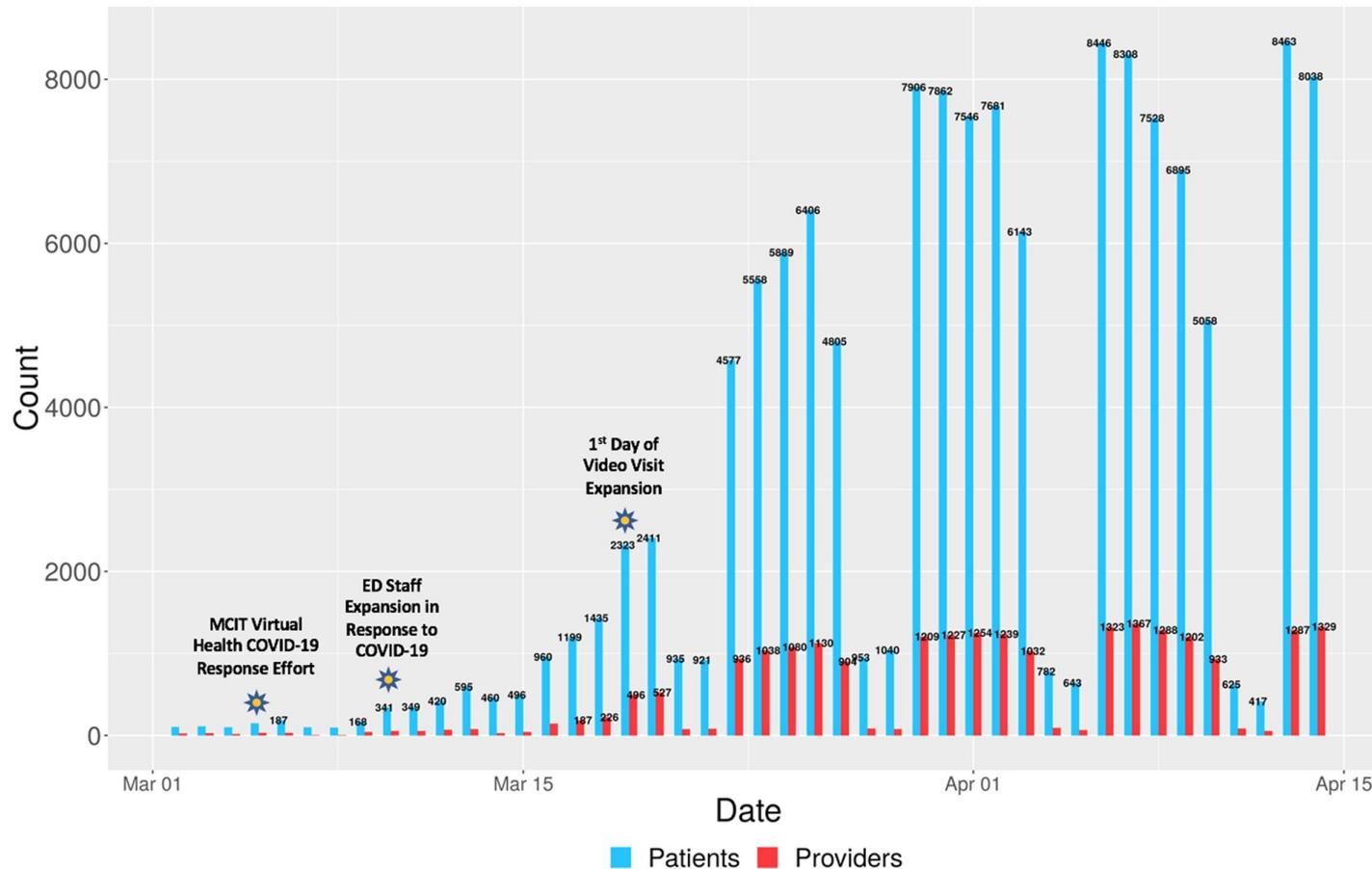
Visit volumes increase in telemedicine urgent care (VUC) and nonurgent care (non-VUC) and decrease in in-person care. Each bar represents 1 day. Key dates are annotated above corresponding bars. COVID-19: coronavirus disease 2019; ED: emergency department.

Mann, D., Chen, J., Chunara, R., Testa, P. and Nov, O., 2020. COVID-19 transforms health care through telemedicine: Evidence from the field. Journal of the American Medical Informatics Association.,



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Telemedicine after Covid-19



Telemedicine adoption: daily count of unique patients and providers. Each 2 bars represent 1 day, and each bar is the volume of unique patients and providers using telemedicine each day. Key dates are annotated above corresponding bars. COVID-19: coronavirus disease 2019; ED: emergency department; MCIT: Medical Center Information Technology.

Mann, D., Chen, J., Chunara, R., Testa, P. and Nov, O., 2020. COVID-19 transforms health care through telemedicine: Evidence from the field. Journal of the American Medical Informatics Association.,.



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Telemedicine in Singapore

IHH Healthcare rolls out telemedicine in Singapore and other key markets



By Ang Hwee Min

31 Mar 2020 09:34PM
(Updated: 31 Mar 2020 10:49PM)

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COVID-19: CHAS, MediSave to be extended to cover video consultations for 7 chronic conditions

COVID-19 SPECIAL

National eye centre launches telemedicine for glaucoma patients



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Objective of Telemedicine Webinar

- Practice of telemedicine, especially given Covid-19, has accelerated exponentially both locally and internationally. It is inevitable that telemedicine has to be incorporated into our clinical practice. Hence, this webinar aims to
- Address regulatory framework of telemedicine
- Address concerns that doctors and/or patients may have with the practice of telemedicine
- Discuss medico-legal issues surrounding telemedicine
- Provide insight on medication delivery quality assurance and requirements



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Regulatory Framework for Telemedicine

- What changes may take place in the new Healthcare Services Act (HCSA) in addressing telemedicine regulation?
- Is it compulsory to be part of MOH Regulatory Sandbox to practice telemedicine?
- What are the clinical requirements for practicing telemedicine?
- What are the limitations of telemedicine, and how do we practice this safely?
- Are there specialty-specific regulations for practicing telemedicine?
- What are the data-security requirements for a telemedicine platform?



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Concerns of Patients/Doctors in Telemedicine

- Can we diagnosis patients safely without examination?
- How do we ensure that there has not been any video-recording done of the doctors during the consult?
- Will this increase the number of MCs taken?
- Can we see children using telemedicine?
- How about the elderly who are not tech-savvy?



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Medico-Legal Issues in Telemedicine

- Are Singapore doctors allowed to provide telemedicine services for overseas patients? How should jurisdictional issues be determined in a case of telemedical negligence?
- What cybersecurity measures should be in place for telemedicine?
- Is the existing ECEG guidelines in support of telemedicine, or will it affect telemedicine's development?
- Does my professional indemnity insurance cover telemedicine?
- How do we ensure patient/doctor identity?



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Medication Delivery Issues

- How do we ensure the proper storage, security, traceability and safety of medication during delivery process?
- What are the legal and professional requirements relating to medication delivery?
- What happens in the case of medication errors or near misses?



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