

Keeping Safe in the time of COVID19



EHRSS CYBER SECURITY AWARENESS SEMINAR 2020-08-12

LESSON LEARN FROM COVID-19

Impact of COVID-19

Global

20M confirmed
740K deaths

Contagious

213 countries
In 6 months

Disruptive

Enduring

Intractable

Costly

USD 15.8 Trillion



Impact of COVID-19 to Healthcare



Paralyzed
Supply
Chains

Overloaded
Healthcare
System

Disrupted
patient care

Cyber Threats are equally devastating

Global

Contagious

Disruptive

Enduring

Intractable

Costly

USD 9.5M
per attack

Impact of Cyber Attacks to business

Reputational damage + Disgrace

- Distributed Denial of Service (DDoS)
- Defacing

Destroy + Financial loss

- Ransomware
- Viruses / Worms


Legal consequence

- Data Theft via scam/ social engineering
- Data breach


Opportunistic threats during time of COVID19



Cyber attack
increased by 200+
% targeting even
Healthcare
sectors



Coronas virus
malware /
scams increased
by 400% world
wide



New risk exposure
due to Remote
Access, Work-From-
Home arrangement

tech

Covid-19 scams have become more targeted, sophisticated as pandemic rages on, report says

- The study singled out more than 125,000 malicious sites globally out of more than 600,000 domains that have been tracked and analysed
- Coronavirus phishing scams have become more targeted and potent

Phishing Alert: COVID-19: New confirmed cases in your city

Report Phishing Email to ITSC
Guide to Handle Phishing Email

Here is how the phishing email looks.

From: COVID-19: New confirmed cases in your city
Sent: 17 Mar 2019 (Tue) 9:47AM
Subject: COVID-19: New confirmed cases in your city

We have provided an updated Global News document.

March 17, 2020

COVID-19 Update



COVID-19 Alert: New cases confirmed in your city... [Read on](#)

新型口罩騙案？過百人中招！解構網購新陷阱 苦主：防不勝防



LESSON LEARN from COVID-19

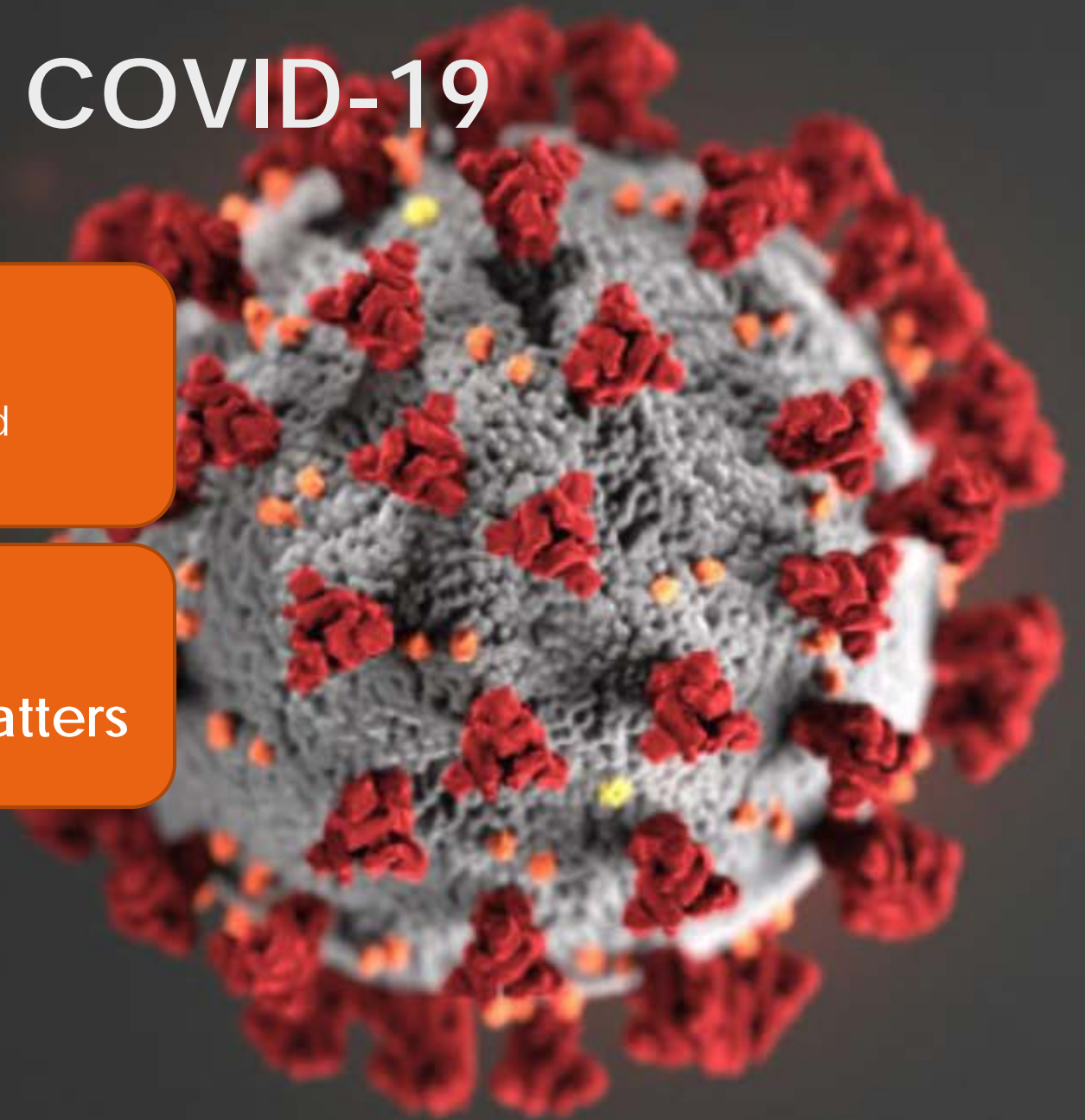
It can strike at anytime

Be vigilant,
be prepared

Adapt fast
sweeping change

**Individual
behavior matters**

Hopefully, the worst is
over.....



Same Lesson applies to Cyber threats

It can strike at anytime

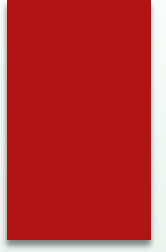
Be vigilant,
be prepared

Adapt fast
sweeping change

**Individual
behavior matters**

Cyber threats / computer viruses
evolves constantly – the worst has yet
to come !





Roles of EHRSS during Pandemic

eHRSS Participation

Data as at:  10-Aug-2020

1,334,463

 Patient Registration

47,232

 Healthcare Professionals

1,986

 Healthcare Providers

3,545

 Healthcare Locations

Ever  Current

Ever  Current

Healthcare Professionals



40,306
Public

6,926
Private

Healthcare Providers



4
Public

1,982
Private

Healthcare Locations



408
Public

3,137
Private

Roles of EHRSS during Pandemic



"Patients participating in our Community Interim Medication Refill Scheme (CIMRS) pilot are those with chronic illnesses who require long term medication. The outbreak of the Coronavirus Disease 2019 (COVID-19) has unexpectedly disrupted their scheduled follow-up and medication refill at the Hospital Authority (HA).

With the objective to bridge this service gap leveraging community resources and inspired by the use of the Electronic Health Record Sharing System (eHRSS), we and our collaborators sparked off this pilot scheme with the aim to contribute to the continuity of care for patients at the community level, as well as to help release precious resources in the public healthcare sector at this critical time to fight against the pandemic."

2020-03-07



評價正面 或擴服務範圍

他指，計劃可加快病人接受治療時間，病人可在約十四日內完成模具，以受放射治療。計劃獲得病人正面回應，並會因疫情情況，視乎未來會否推出及乳癌的公私營合作計劃。

有病人家屬稱受惠於計劃，病人能夠以同等價錢獲得服務，毋須延遲治療。李小姐表示，母親患有乳癌，癌細胞擴散至腦部，四月三日由公立醫院出院，七日已獲安排與私家醫院醫生見面及做模具，四月中接受放射治療，過程中醫生態度良好並給予眾多幫助，更只需支付在醫管局治療的同等價格，對計劃持正面態度。



■因應新冠肺炎疫情發展，公立醫院暫停非緊急服務，從而促成公私營協作計劃分流病人

Oh爸媽 - ohpama.com
3月11日 ·

合資格參加計劃嘅新生兒，可享呢個低收費！

下載《Oh 爸媽》App，瀏覽更多家庭、育兒資訊 <http://bit.ly/2BtKjQ>
爸媽必睇《Ohpama》Instagram，追蹤我們@ <http://bit.ly/igohpama>

診症費 \$80
入院費 \$75

公院收費，私院跟進服務？ 疫症下新生兒黃膽治療特別安排

OHAMA.COM

【和牛b的成長日記】BB成長日記 | 疫症下的QE新生嬰兒黃膽 | 私家醫院跟進服務公院收費

讚好

回應

分享

67

19次分享

公私營協作 分流癌症患者

33人獲放射紓緩治療

【本報訊】因應新冠肺炎疫情發展，公院暫停非緊急服務，從而促成公私營協作計劃分流病人。九龍西醫院聯網腫瘤科部主管鄭志堅醫生指，醫院管理局自三月擴大公私營協作計劃分流病人，並擴大造影檢查名額及加入放射治療服務。截至剛過的周日（10日），已有三十三位病人接受私營協作放射紓緩治療服務，逾三千五百位病人接受放射診斷造影檢查服務。

鄭志堅稱，經醫生臨床診斷為有迫切



放射治療(紓緩性)

2020年3月起暫停非緊急放射治療(紓緩性)服務

COVID-19 新冠肺炎
新院系統壓力。但急症中，為免病人「拖症」，醫管局7大醫院公私營協作計劃，3月起與4行全新紓緩性放射治療計劃。負疫情下公私院合作阻力反更減少，後加強協作打好基礎。

鄭志堅 攝：黎耀輝 美術：羅玉玲

速雙方協作
院部分射治療



港怡、養和、浸會(圖)及聖德肋撒等4間私院為公院分流，提供紓緩性放射治療。(資料圖片)

分流至4私院

集中抗疫暫停非緊急服務中央委員會主席鄭志堅指，若病情穩定且有迫切需要，加上14日無外遊史，可到港怡、養和、浸會或聖德肋撒等4間私院進行治療。

受惠病人：公院價錢私院待遇
病人家屬李小姐指，77歲母親因乳癌出現腦轉移致自理能力變差，不能脫完整句子。按公院排期本在4月15日才能見醫生，幸獲轉介，4月7日已能見浸會主診醫生，並在4月14日至24日間完成10次放射治療。

她指，因放射治療需時做模具和設計方案，若無轉介，內部會將大腸癌或乳癌等較輕微手術亦轉介至私院，惟涉及手術質素、病人跟進等複雜考慮，暫未有定案。

性計劃，出現骨或腦轉移癌症的病人，若病情穩定且有迫切需要，加上14日無外遊史，可到港怡、養和、浸會或聖德肋撒等4間私院進行治療。

鄭志堅醫生補充，計劃現有33人受惠，「揀選」能讓病人趕及於確診後7至14日治療，變相減少痛苦。

鄭指，疫前公院常「超標等28日」，疫情下更要等多1、2周，能轉介至私院，但係試行計劃，放初期適用範圍較窄，且只挑選應付短期病人。但他笑言疫情下因「不能不做」，結果合作反應更暢。至於是否恆常化或擴展至其他癌症病人，要視乎疫情發展。

Public Private Partnership Programmes introduced during COVID-19



District Health Center

【專訪】葵青康健中心多元「外展」服務 社區抗疫減輕醫院負擔

2020-05-17 08:37



周奕希指，新冠肺炎疫情在地區擴散，康健中心服務隨即多元化。

本港昨日沒有新冠肺炎確診個案。疫情持續多月，市民對健康意識迅即提高，亦帶動地區康健中心轉型。主理葵青康健中心的葵青安全社區及健康城市協會主席周奕希接受《星島日報》專訪時指，該中心以往主要關注長者的健康情況，惟在年初爆發疫症後，中心將服務範疇聚焦區內街坊，包括派發口罩，以及安排職員拍片進行網上健康講座等，讓居民在家中亦能掌握抗疫資訊，而未來將增聘人手讓服務更趨多元化，冀減低醫院內醫護的負擔及壓力。

港府近年大力推動基層醫療，全港首間地區康健中心的「葵青康健中心」，由葵青安全社區及健康城市協會中標營運，並於去年十月起投入服務，該會主席周奕希指，營運初期主要服務區內長者，預防慢性疾病。

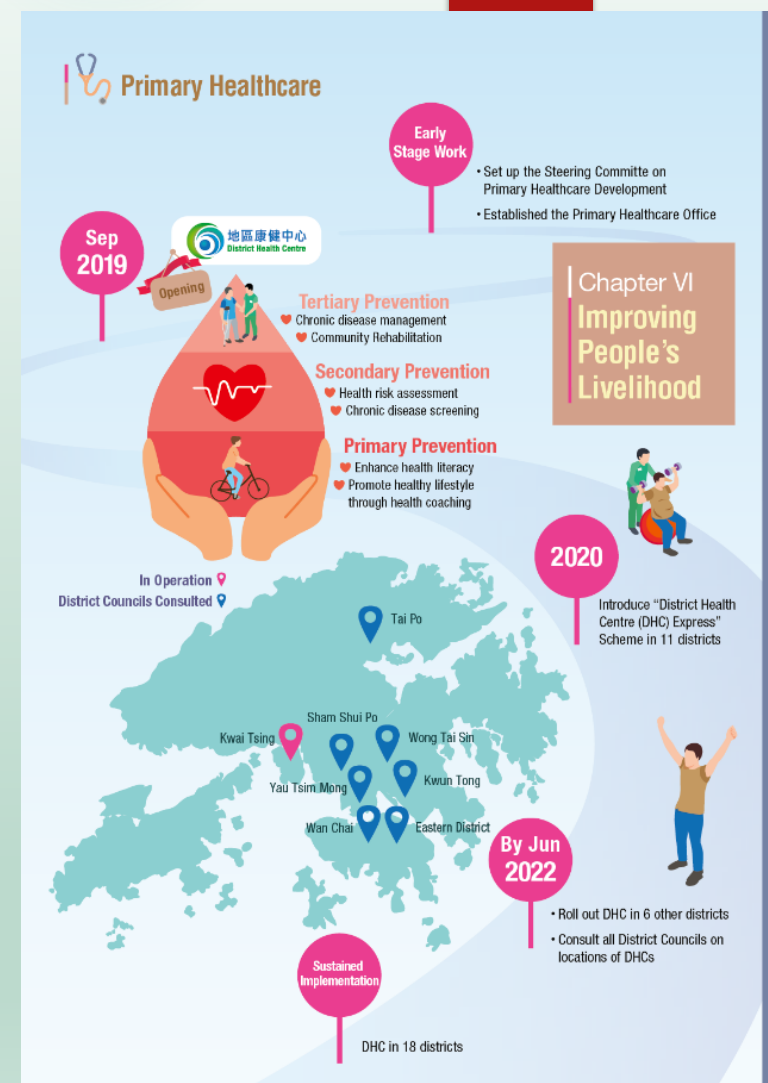
周奕希：教導居民防疫知識

周奕希稱，該中心在新冠肺炎爆發後，年初時曾一度需要關閉，重啟後職員隨即思考能夠為居民提供的服務，最後決定「走出去」支援社區，並開展了一連串多元化服務。

他憶述，當時因應區內部分街坊情緒緊張，經常留在家中，不會與人交談，個別長者更不欲外出購物，疑似有抑鬱症狀，中心收到不少求助電話，因此開展外展服務，除在區內擺站外，更會前往有肺炎確診個案的大廈支援，除派發口罩外，亦會教導居民防疫知識。

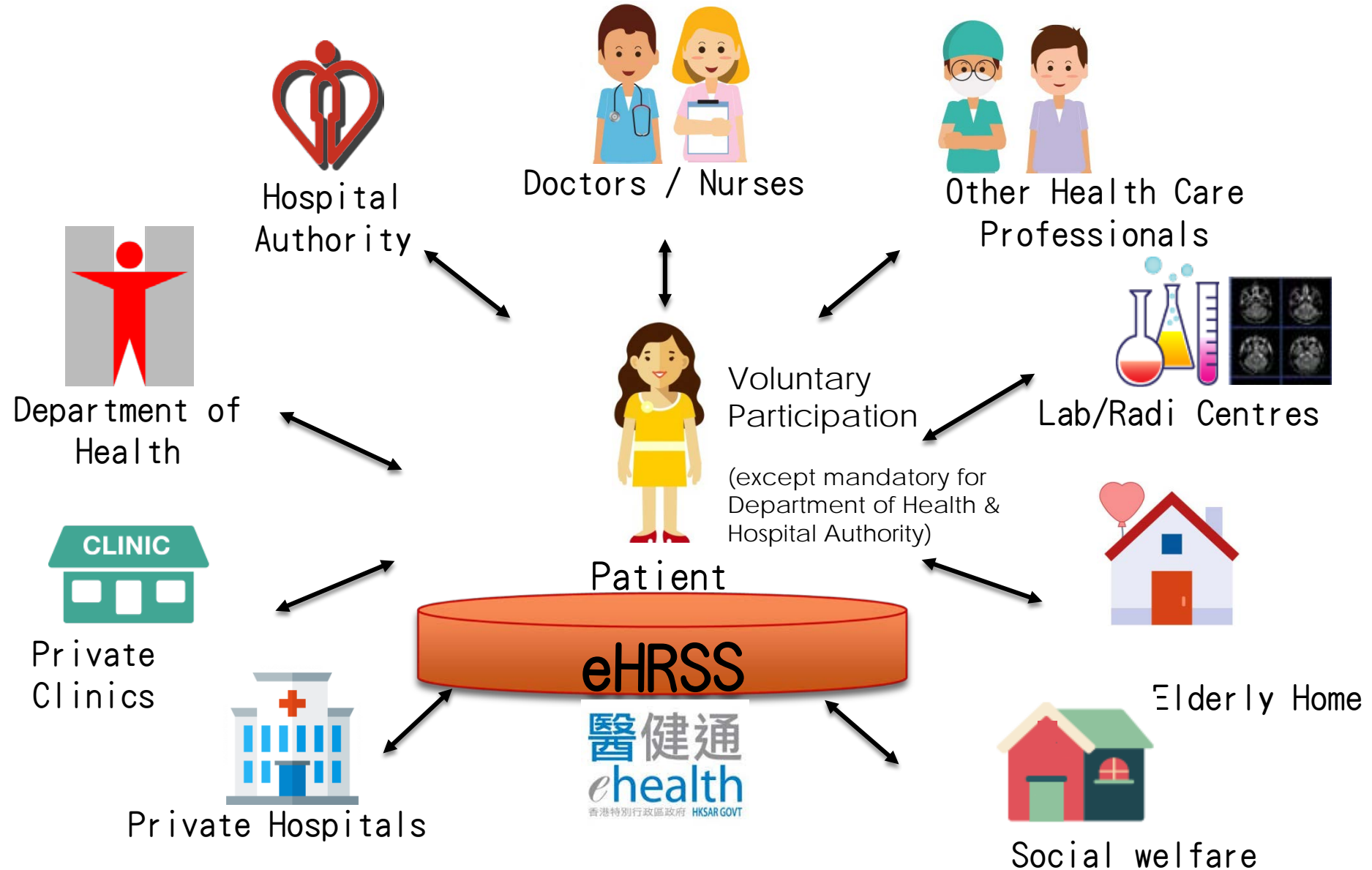


康健中心在區內設攤檔，為居民提供防疫資訊。



地區為本,公私合營,医社合作

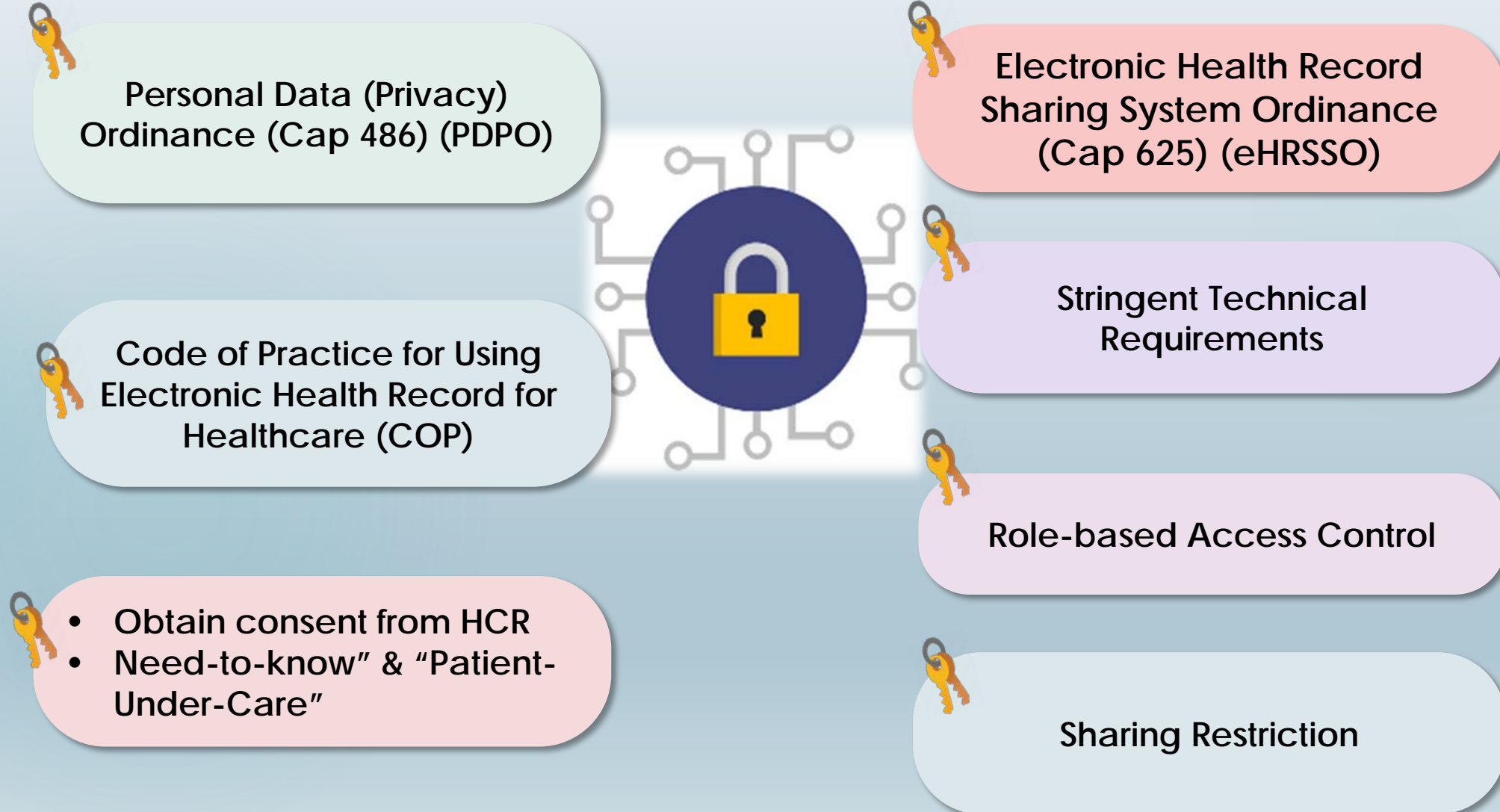
Electronic Health Records Sharing System (eHRSS)



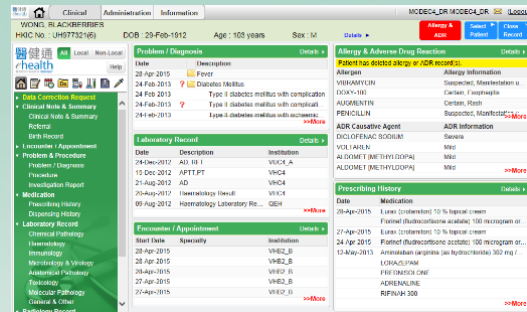


Keeping EHRSS Safe in the time of COVID-19

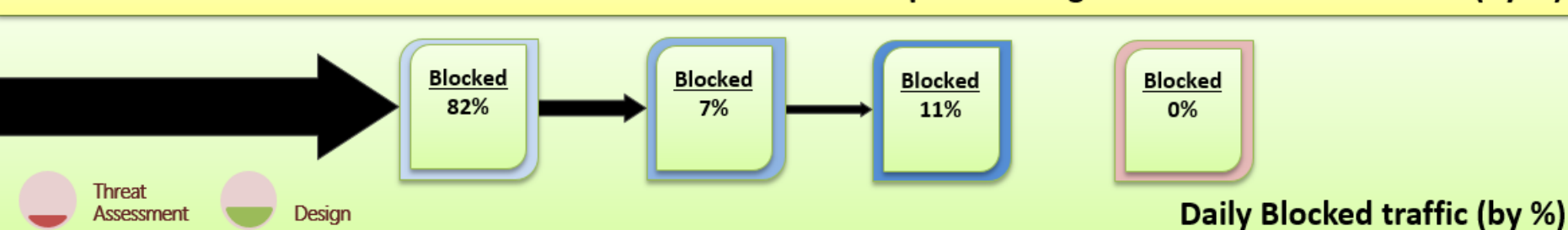
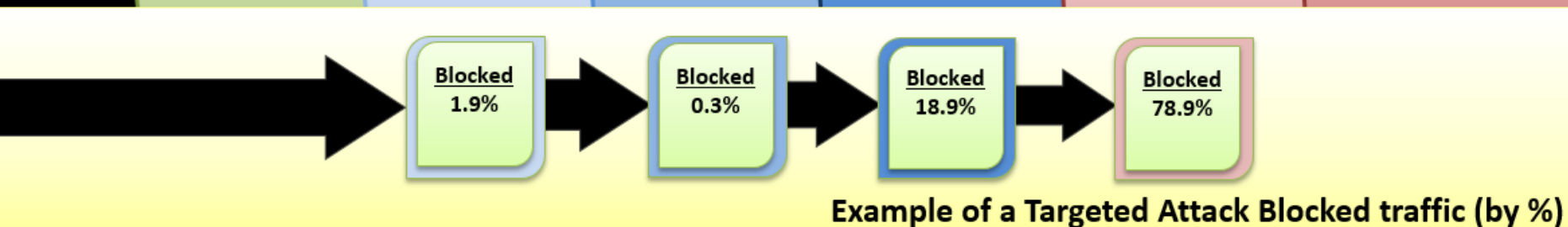
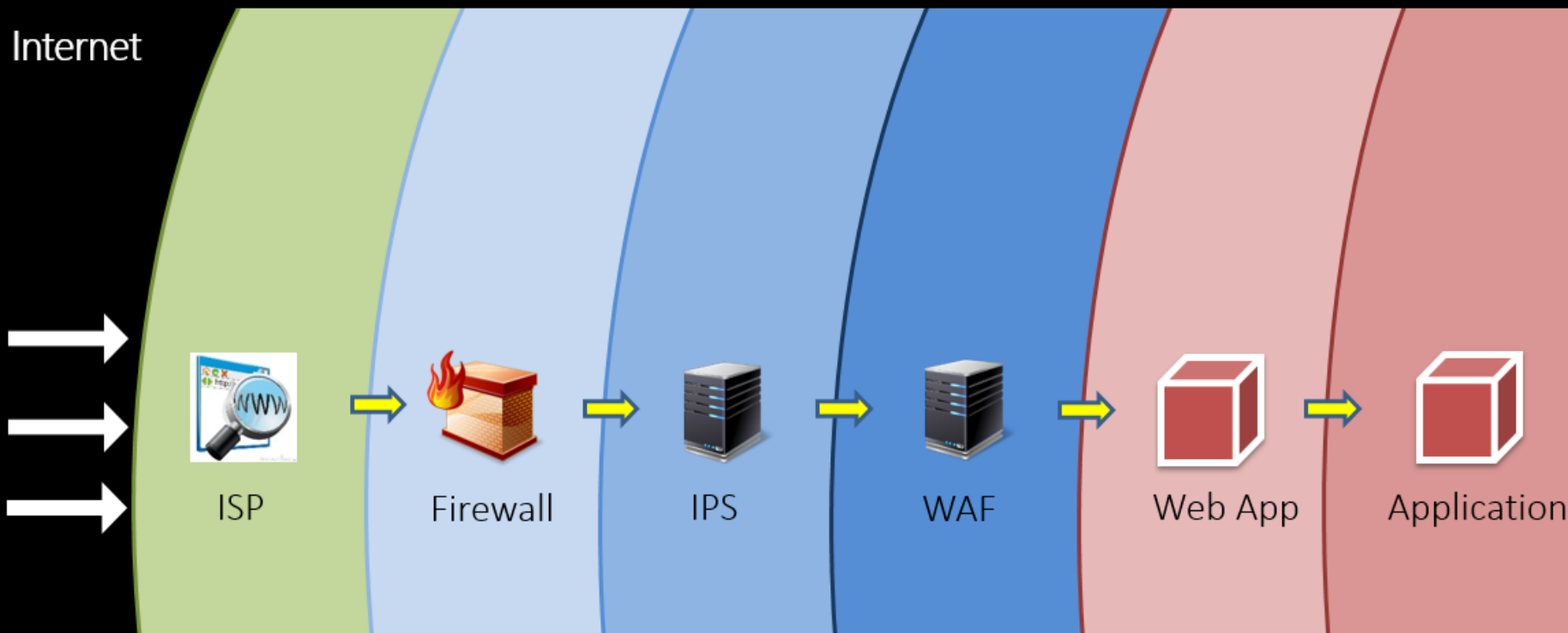
Protecting Security and Privacy of Personal Data in eHRSS



22/11/2017



Defence in Depth



Advanced attacks /
insider attacks can
only be stopped by
application security
design and continuous
monitoring practices

Ordinary attacks can
be blocked by
perimeter defenses

Enhance 2FA Using Mobile Phone



Electronic Health Record Sharing System 電子健康紀錄互通系統

User Name
用戶名稱



Important Reminder

1. All patient information is strictly confidential
2. Only access patient data for providing healthcare purpose
3. All access is logged
4. Do not share your account / token
5. Please change your password regularly

重要提示

1. 所有病人的資料都必須嚴格保密
2. 只可在提供醫護服務及有需要時取覽病人的資料
3. 每次的取覽均會被記錄
4. 切勿與其他人士共用你的帳戶/保安編碼器
5. 請定期更改密碼

Personal Information Collection Statement

Privacy Policy Statement HEALTHCARE PROVIDER

收集個人資料聲明

私隱政策聲明

Password:

OTP has sent to your mobile phone number: **9837 ******,
Please input OTP below

One Time Password:

TSQA -

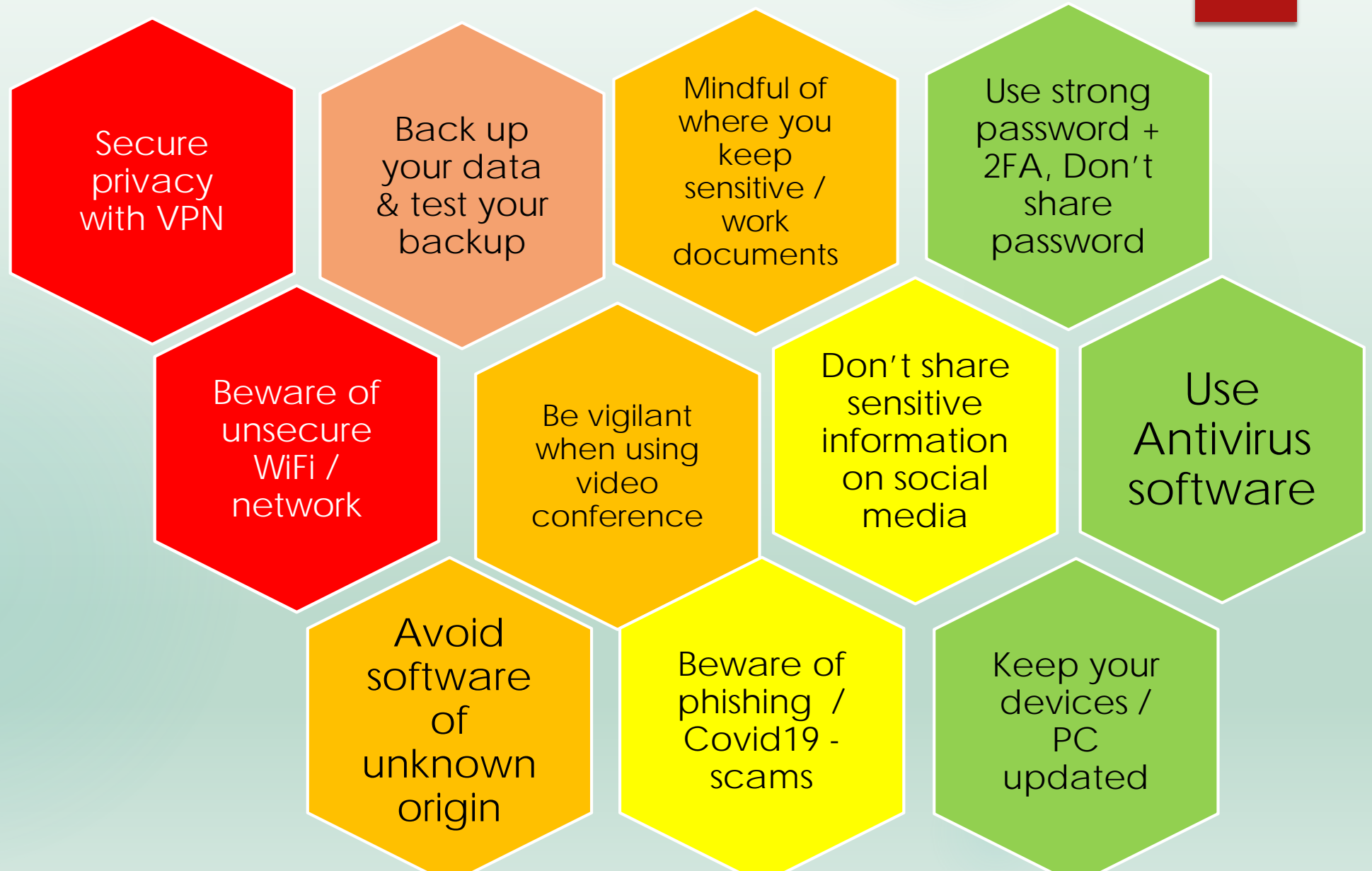
Submit

Send OTP Again (30s)

Enhance Sharing Consent Management via eHealth Mobile App



Stay Safe when Work From Home



Stay Safe with Healthcare IoT



- Evaluate security risk before use
- Avoid upload sensitive data to Cloud (eg. patient id)
- Use strong encryption
- Separate network for IoT
- Don't use same password
- Regularly update firmware

Cyber Security Tips for Healthcare Providers



The screenshot displays the eHealth.gov.hk website interface. At the top, the header includes the logo for '醫健通 ehealth' and '電子健康紀錄互通系統 Electronic Health Record Sharing System'. Navigation links for Home, Sitemap, and language options (A A A | 繁體 简体 Eng) are present, along with a search bar. A secondary navigation bar lists categories: About eHRSS, Patient, Healthcare Provider and Professional, Ordinance and Related Information (which is highlighted), Information Standards, Training and Engagement, Publicity, and FAQs and Forms.

The main content area features a banner with a gavel and the text 'eHR SHARING', 'HEALTHCARE', and 'eHR EXPLORER'. Below this, the left sidebar shows a tree structure under 'Ordinance and Related Information', with 'Code of Practice' selected. The main content pane shows the breadcrumb trail: Home > Ordinance and Related Information > Code of Practice > Code of Practice for Management Executives, Administrative and Technical staff. The title of the page is 'Code of Practice for Management Executives, Administrative and Technical staff using eHRSS'. A list of eight numbered items follows, each with a link to a specific document or guideline.

Ordinance and Related Information

- o eHRSS Ordinance
- o eHR Public Consultation
- o **Code of Practice**
 - Introduction
 - **Code of Practice for Management Executives, Administrative and Technical staff**
 - Code of Practice for Healthcare Professionals
 - Annex

Home > Ordinance and Related Information > Code of Practice > Code of Practice for Management Executives, Administrative and Technical staff

Code of Practice for Management Executives, Administrative and Technical staff using eHRSS

- 2.1 [Registration as Healthcare Providers in eHRSS and promulgation of eHRSS](#)
- 2.2 [Handling Registration of Healthcare Recipient](#)
- 2.3 [Obtain Healthcare Recipient's consent for eHR access](#)
- 2.4 [Healthcare Providers to manage any authorised person's user account](#)
- 2.5 [Manage Healthcare Providers' own clinical records](#)
- 2.6 [Ensure general system security](#)
- 2.7 [Make data sharing to eHRSS secured](#)
- 2.8 [Handling Data Access Request and Data Correction Request](#)

https://www.ehealth.gov.hk/en/healthcare_provider/cyber_security/index.html

CYBER SAFETY CHECKLIST



Back up online and offline files regularly and securely



Strengthen your home network



Use strong passwords



Keep your software updated



Manage social media profiles



Check privacy and security settings



Avoid opening and delete suspicious emails or attachments



INTERPOL

BE VIGILANT . BE SKEPTICAL . BE SAFE



INTERPOL

COVID-19

CYBER HYGIENE TIPS



**SELF ISOLATE
YOUR DATA**



INTERPOL

**PRACTICE SOCIAL
DISTANCING**

FROM UNKNOWN SENDERS



INTERPOL



**MONITOR
YOUR ACCOUNTS
AND PASSWORDS**



INTERPOL

**USE PROTECTIVE
EQUIPMENT**

**SUCH AS
AN ANTI-VIRUS**



**AVOID CONTACT
WITH**

**SUSPICIOUS EMAILS
OR ATTACHMENTS**



CLEAN

**COMPUTER SYSTEMS
AND MOBILE DEVICES**



THANK YOU

Stay Safe,
Stay Healthy,
Fight COVID-19 together,
Keep EHRSS safe together !