Organised by :

Sole Funder :

The Hong Kong Jockey Club Community Project Grant





The 9th Global Conference of the Alliance for Healthy Cities

"SMARTER HEALTHY CITIES BEYOND COVID-19"

3-5 November 2021

Singapore Pharmacy Digital Transformation

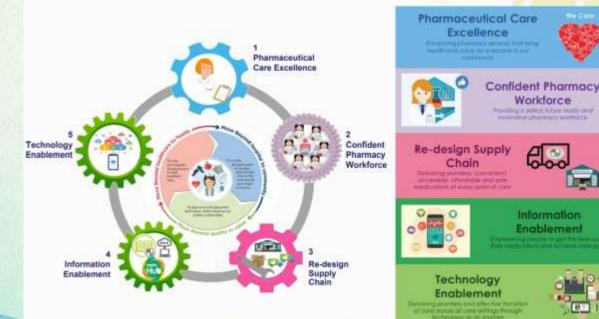
Ms Yong Pei Chean President 115th Council Pharmaceutical Society Of Singapore



"SMARTER HEALTHY CITIES BEYOND COVID-19"

Our Goals

The National Pharmacy Strategy (NPS) has 5 key thrusts that align to the key shifts in the healthcare transformation strategy



- Enable sharing of information to allow continuity of care
- Enable patient empowerment
- Better integration of our services
- Increase accessibility of care
- Operation Efficiency



The Hong Kong Jockey Club Community Project Grant

The 9th Global Conference of the Alliance for Healthy Cities

0

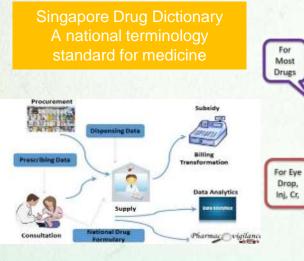
"SMARTER HEALTHY CITIES BEYOND COVID-19"

National Harmonized Integrated Pharmacy System (NHIPS) with National Pharmacy Strategy (NPS)

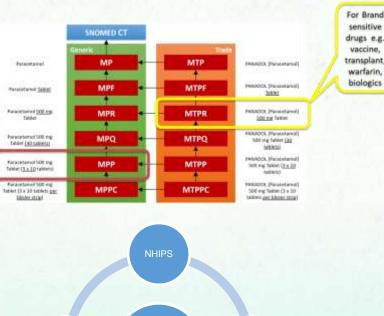
"Medications when you need it, where you need it"

17

Single Source of Truth (Through Medication Reconciliation)



To achieve safe, unambiguous and seamless medication information exchange and interoperability for all healthcare settings in Singapore to improve medication safety



One patient

One health

(NEHR)

GPC

NGEMR SCM

PLATFORMS

sensitive

vaccine,

 A new system to replace. consolidate and harmonise the disparate PHI and CH pharmacy systems, data and workflows

 One platform to promote transformation upstream by tiering of needs by pulling of information and downstream by pushing of services based on needs.

> Strong partnership between MOH Chief Pharmacist Office, PHI Pharmacies, IHIS and

PEOPLE

NHIPS

23

PROCESS

 Facilitate cross filling of prescriptions across all 41 participating pharmacies covering discharge, emergency, polyclinics and SOCs.

 Unify the patient experience in terms of flexibility, processes, handouts, counselling etc.

 Support transformation such as central fill, home delivery, medication refills etc.

NCS Pte Ltd with joint accountability.

3



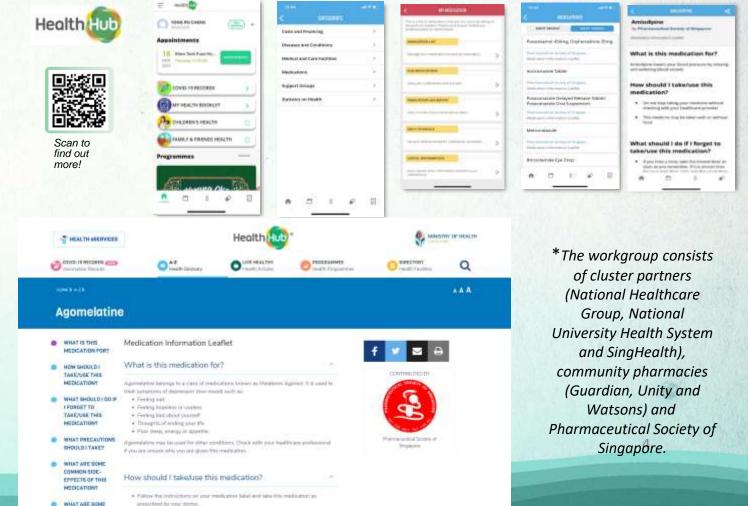
The 9th Global Conference of the Alliance for Healthy Cities

"SMARTER HEALTHY CITIES BEYOND COVID-19"

Patient education, empowerment

National platform - Healthhub

- Healthhub has features such as appointment booking, laboratory vaccination and medication records.
- Patient has access to contextualised health information, harmonised medication information leaflet (MIL).
- To date, ~300 harmonized MILs are published in the HealthHub Medication A-Z, reaching more than 500k page views from Jan to Aug 2021.
- MILs are jointly reviewed by multi-professional team through the Pharmaceutical Society of Singapore-National Medication Information (PSS-NMI) Workgroup*.





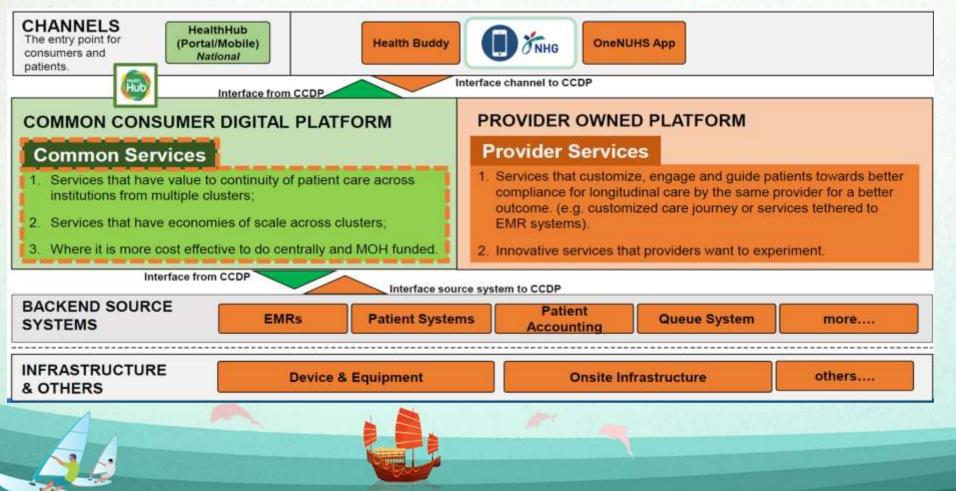
The Hong Kong Jockey Club Community Project Grant

The 9th Global Conference of the Alliance for Healthy Cities

"SMARTER HEALTHY CITIES BEYOND COVID-19"

5

Future National Public Healthcare Digital Platforms & Apps





The Hong Kong Jockey Club Community Project Grant

The 9th Global Conference of the Alliance for Healthy Cities

"SMARTER HEALTHY CITIES BEYOND COVID-19"

antenia ante des al conte

and the second s

6

NPS Thrust 3.2: Goal State Recap HOW TO ORDER MEDICINES Deliver Medicines to Where, When and How Patients Need Them + -----PillDeliver) Consistion Based Approach NCEP PHI R IN R At Least Two NCFPs With New Delivery Modes And Supporting Pharmacy Services System-wide Benefits Consolidated PHIs Pharmacy Build System proved Patien Patients' Supports Staff Can Focus Resilience & Achieve End To And Caregiver dicine List By medicine And On Provision Of **Continuity To** End Supply Chain flerent Doctor New Model Of Satisfaction & Efficiency Enable Pandem Pharmaceutical Confidence Care To Empower Care Ownershi FREE Medication Delivery! SGH PHARMACY PLIERY MEDICATION DELIVERY SERVICE Sector al

Accessibility to Medication

- Healthhub/FormSG/ **Institution** Apps
- E commerce
- Central Fill (Future)

Ease of collections:

- Lockers Pillbox, Singpost, Bluport, PICK
- Home delivery
- Community Pharmacies



"SMARTER HEALTHY CITIES BEYOND COVID-19"

Enabling accessible to care Telemedicine – The New Norm

Pharmacy Initiatives: Improving Accessibility



Enhances access to our approachable pharmacitis to strengthen engagement, frust and partnership for shored decision making. Expansion of funding for services to allow patients to utilize their Medisove for nondoctor services would be highly helpful.

- Medication counseling
- Medication Review
- Ambulatory care clinic services e.g., Anticoagulation monitoring, smoking cessation services
- Virtual Consult clinics including collaborative prescribing clinics
- Community outreach programs



Four distinct domains of telemedicine

Healthcare service providers should be clear which domain(s) they intend to deliver as part of the service:



lection of isometical data free

atients/conservers by remote

res and transmitted to the

esitheare service previder for the urpours of stal signs monitoring

Telecollaboration

Telesupport the of orders services for non-clinical (i.e. oductional and admenictrative) proposes to support the satisfact, and



watsons

Unity

tealiny beault





Community Pharmacy

- Telepharmacy services
 - Reach a pharmacist even when there is no pharmacist physically in the store
- E-Pharmacy services
 - E prescription fulfilment
 - 24/7 online consults from general queries to chronic disease follow up



"SMARTER HEALTHY CITIES BEYOND COVID-19"

Operation efficiency to reduce manpower reliance & improve safety **Inpatient Pharmacy Automation System**

- Inpatient automation system
- **Outpatient automation** system
- Vending machines at clinic floors
- Vending machines for OTC medications
- Robots for teleconsultation





Closed Loop Medication System (CLMM)



vic Inpatient Medication Recard and Inpatient ication Adv ed telMR (MAR)

BOCKOTS site arMPR-MAR information is instrumented to the Webication Stonage Unit +eMAS PDA is sible to access #IMR-MAR



Pharmacy Initiatives: Adoption of Technology at Central Pharmacy

Smart Shelves

dication Picking, Packing & Dispen



Administration System

Before medicine is served

to the patient, the patient's

what tag and that coded

accorded by routies using

medication labels are

(eMAS)

Medication Storage Unit Safety features include putches ights for accurate picking, be booked compartments and controlled access such as transported weldfootion Located in wards and offer 24

your medication suppry for 80% of

eMAS PDA to ensure that the right medicine is is served to the right patient



Unit dose packaging machine





E-Med trolley

Automated Dispensing Cabinets





"SMARTER HEALTHY CITIES BEYOND COVID-19"

Governance for Safety, Quality and Cybersecurity



Government, PSS and Industry-Led Guidelines

- National Medication **Reconciliation Guideline 2018**
- SS644 :2019 Guidelines for the supply and delivery of medication 2019
- · PSS Tele-pharmacy and Tele-Pharmaceutical Care Services Guideline 2019
- PSS Pharmacy Practice

https://www.pss.org.sg/store/online-cpe



"SMARTER HEALTHY CITIES BEYOND COVID-19"

Thank you

Acknowledgements:

Dr Camilla Wong, Chief Pharmacist, Ministry of Health, Singapore Mr Lim Mun Moon, Director of Pharmacy, Singapore General Hospital Ms Lim Siew Woon, Head, Pharmacy, National University Hospital Ms Lim Hong Yee, Director, Pharmacy, Tan Tock Seng Hospital Ms Grace Chew, Pharmacy Practice Manager, Guardian Health & Beauty (Singapore) Mr Ivan Ng, Pharmacy Practice Manager, Unity Pharmacy, Fairprice Co-operative Pte Ltd Ms Grace Kng Li Lin, Senior Pharmacist, Watson's Personal Stores Pte Ltd