

Healthcare Manpower Projection 2023

Projection Results

Legislative Council Panel on Health Services Meeting

12 July 2024

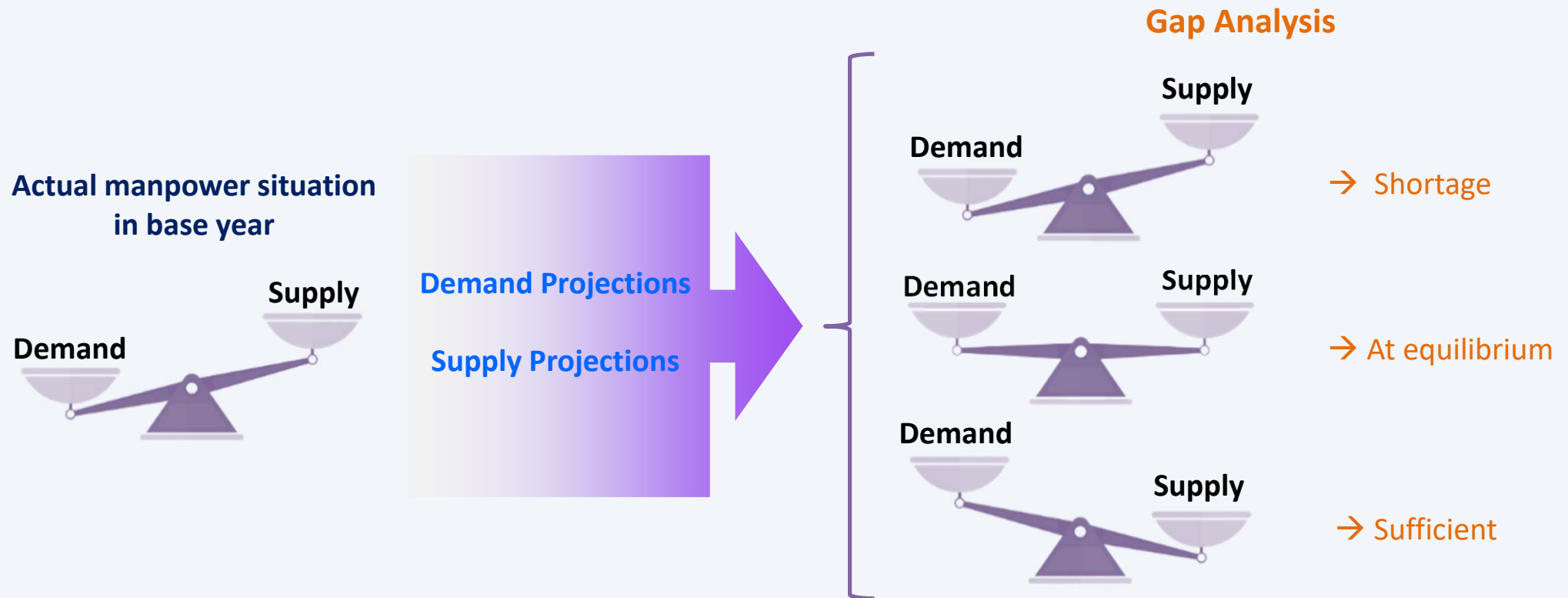
Healthcare Manpower Projection Framework

- * **2019 as base year**
- * **Project the manpower demand and supply for 13 healthcare professions which are subject to statutory registration**
 - doctors, dentists, dental hygienists, nurses, midwives, Chinese medicine practitioners, pharmacists, occupational therapists, physiotherapists, medical laboratory technologists, optometrists, radiographers and chiropractors
- * **Projection period: Future 20 to 30 years**
- * **Demand and Supply Projection Models[#]**
 - Formulated with input from the key stakeholders on the model parameters and projection assumptions
 - Incorporated the impact on the future manpower requirement and supply arising from the known and planned policy initiatives
 - Accounted for the impact on manpower supply arising from the attrition wave of healthcare professionals in 2020 to 2022

[#] Note: The demand and supply projection models, and the key assumptions are listed in slide 24-26 of this PowerPoint.

Manpower Demand-Supply Gap Analysis

Through the **gap analysis** and taking into account the known manpower shortage as at the end of base year, the future manpower situation in the projection period is assessed.

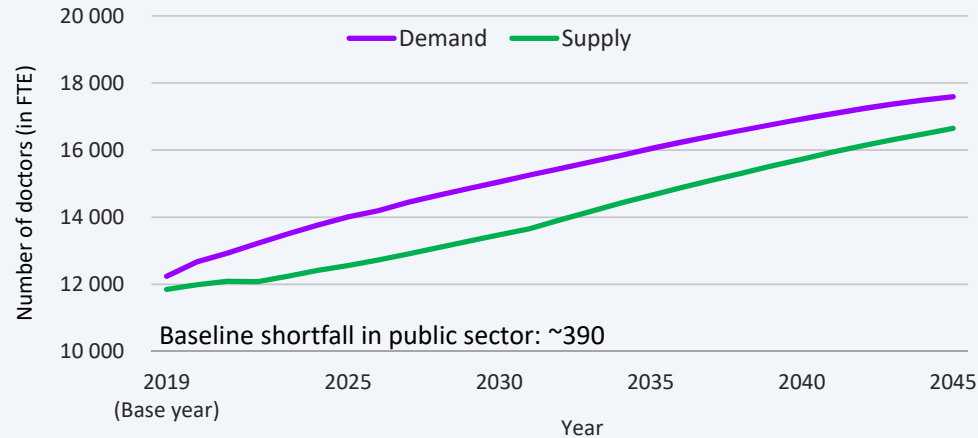


Summary of Healthcare Manpower Projection Results for the 13 Professions

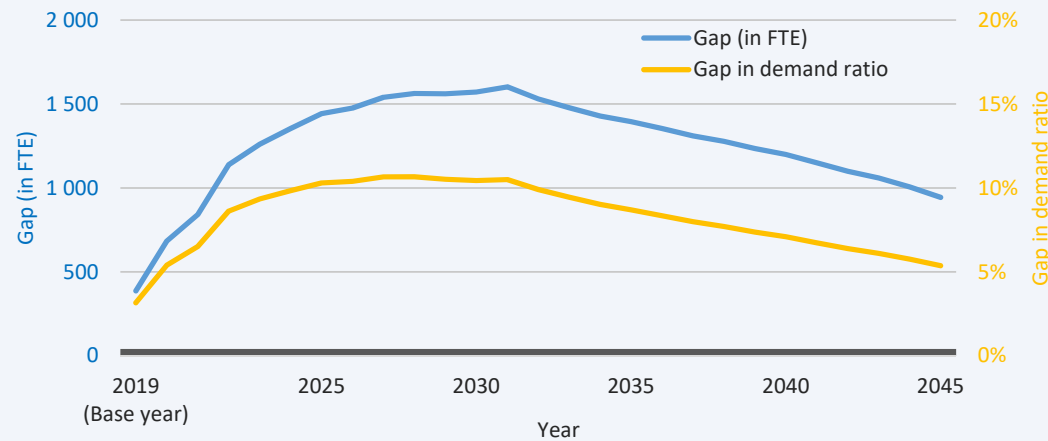
(Base Case)

Doctors

Projected Manpower Demand / Supply (in FTE) for Doctors



Projected Manpower Gap (in FTE) for Doctors



Note: Non-locally trained doctors through the new pathway of special registration have been considered in the manpower supply projection.

Policy initiatives:

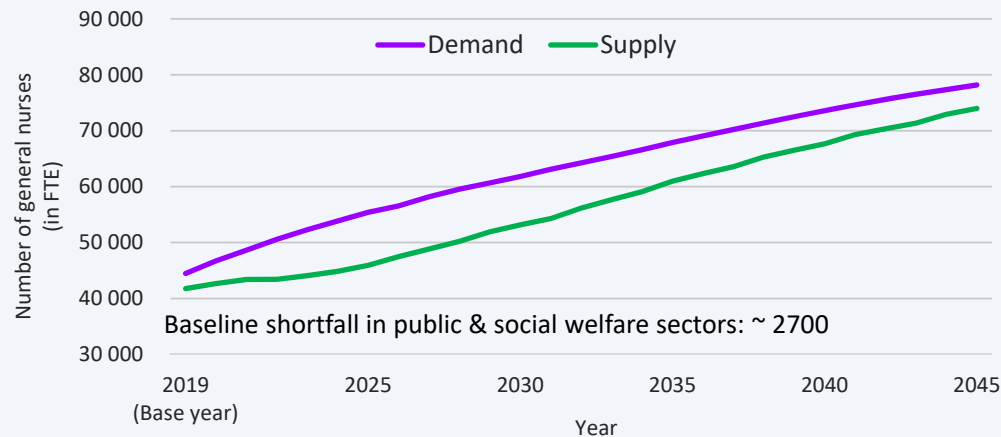
- Development of Chinese Medicine Hospital and private hospitals
- Chronic Disease Co-care Pilot Scheme
- Hong Kong Genome Project



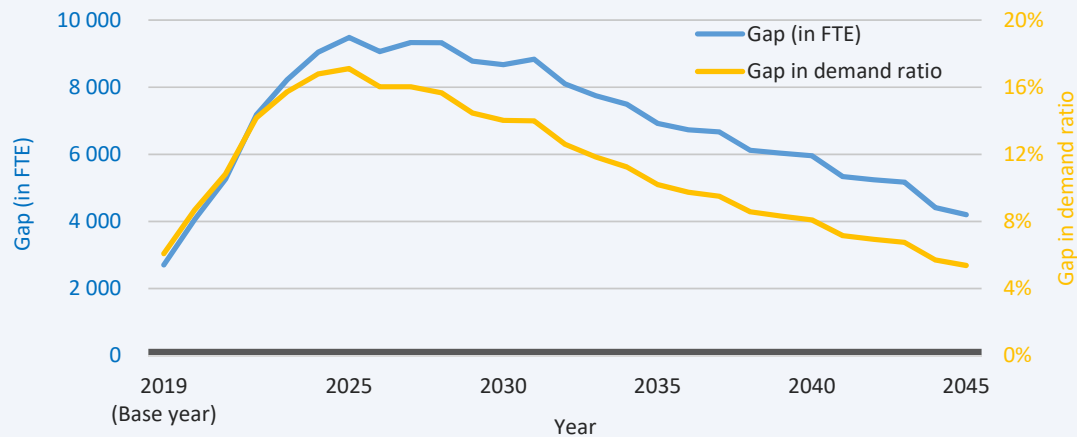
Abbreviation:
FTE - Full-time equivalents

General Nurses

Projected Manpower Demand / Supply (in FTE) for General Nurses



Projected Manpower Gap (in FTE) for General Nurses



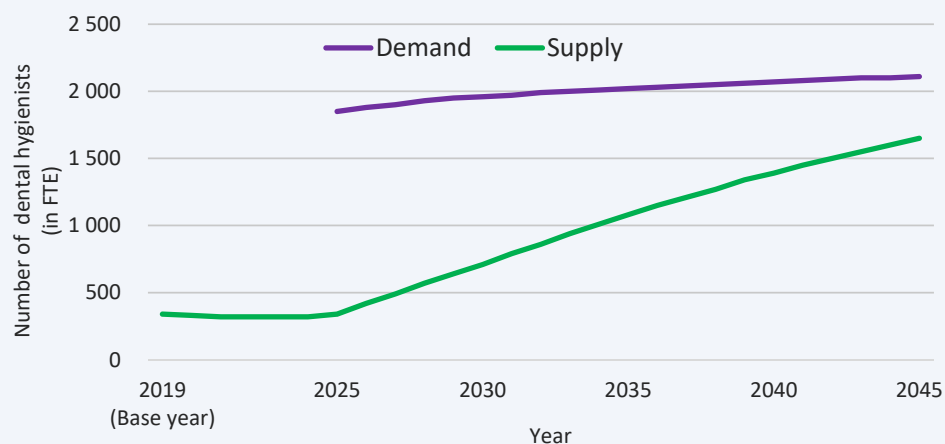
Policy initiatives:

- Known and planned subvented and non-subvented elderly / rehab / community services
- Planned services in the Department of Health (DH)
- Development of Chinese Medicine Hospital and private hospitals
- District Health Centre / Chronic Disease Co-Care pilot Scheme
- Hong Kong Genome Project

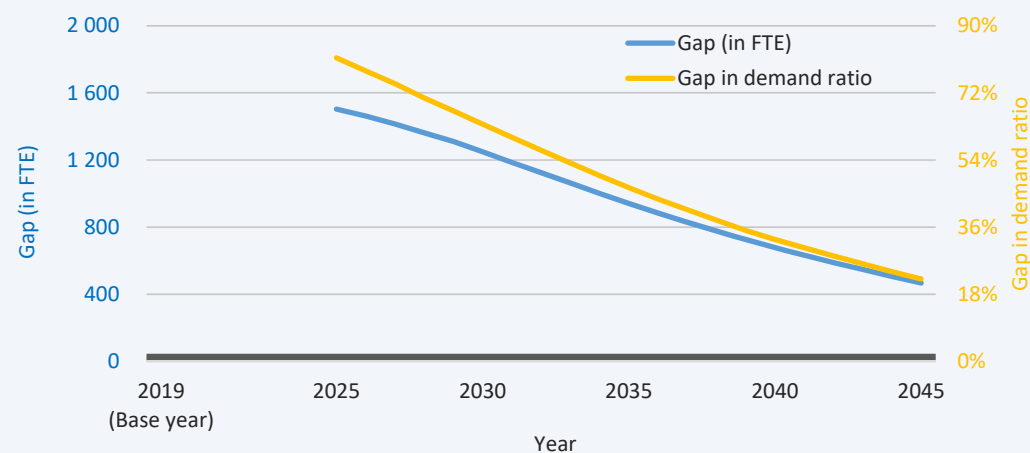


Dental Hygienists

Projected Manpower Demand / Supply (in FTE) for Dental Hygienists



Projected Manpower Gap (in FTE) for Dental Hygienists



Policy initiatives:

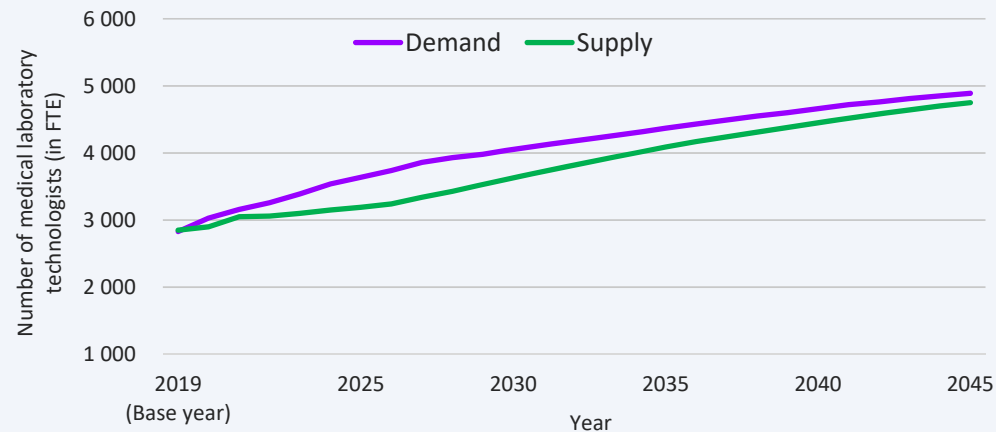
- Enhancement of dental services in DH
- Primary Dental Co-Care pilot scheme



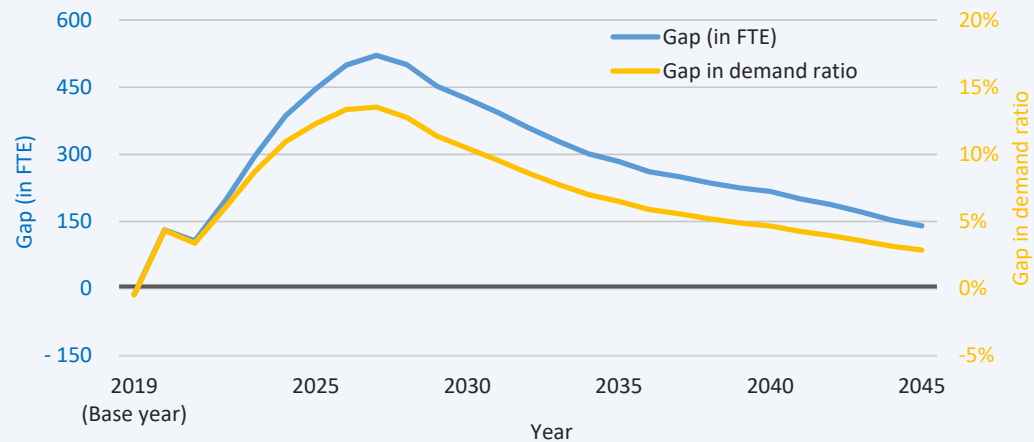
Note: Gradual increase of training places for dental hygienists starting from 2024/25 academic year has been considered in the manpower supply projection.
A ratio of 1 Dentist to 1 Dental Hygienist in private sector has also been assumed in the manpower demand projection.

Medical Laboratory Technologists

Projected Manpower Demand / Supply (in FTE) for Medical Laboratory Technologists



Projected Manpower Gap (in FTE) for Medical Laboratory Technologists

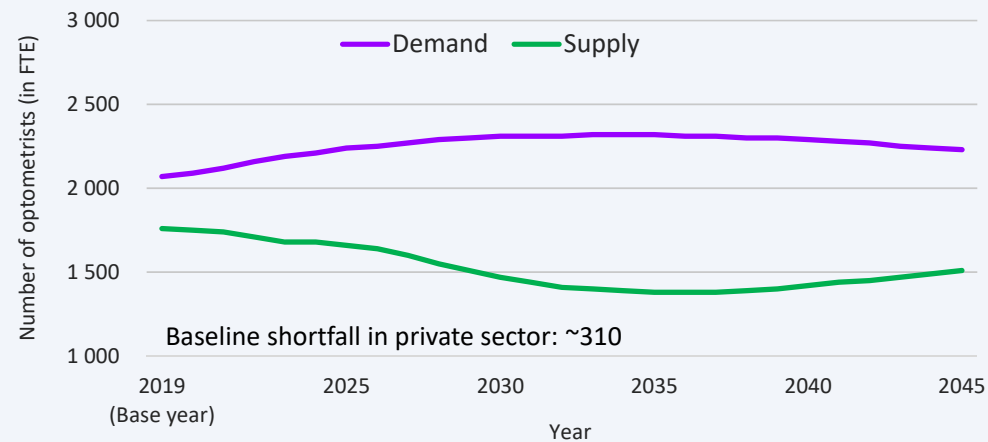


Policy initiatives:

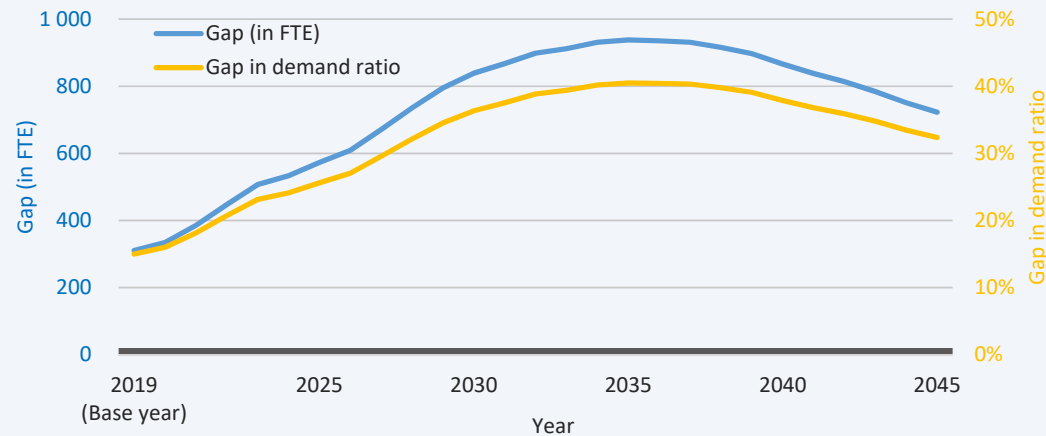
- Development of Chinese Medicine Hospital and private hospitals
- Hong Kong Genome Project
- Chronic Disease Co-care Pilot Scheme

Optometrists

Projected Manpower Demand / Supply (in FTE) for Optometrists



Projected Manpower Gap (in FTE) for Optometrists



Policy initiatives:

- Chronic Disease Co-Care pilot scheme



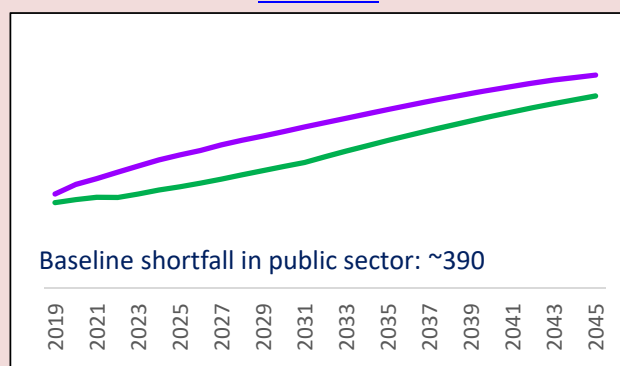
Results Summary (1): Healthcare Professions with Manpower Shortfall Exists throughout the Projection Period

— Demand — Supply

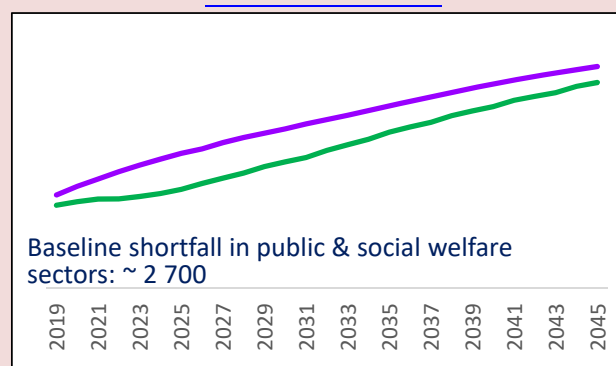
Notes:

1. The vertical axis scale varies between charts.
2. The manpower demand and supply are calculated in terms of full-time equivalents.

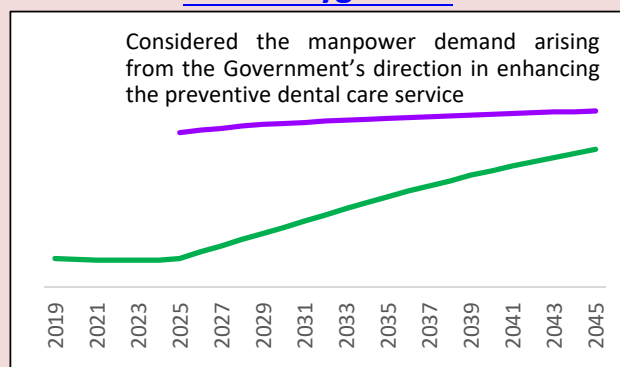
Doctors



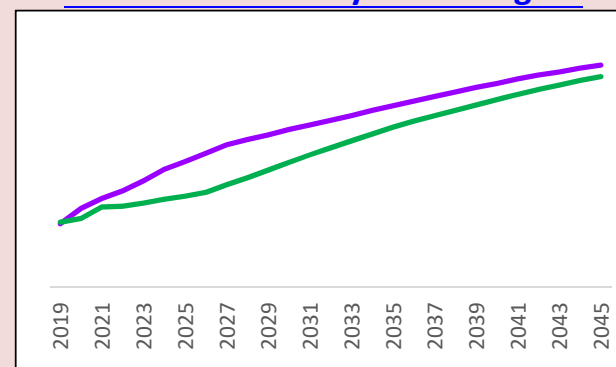
General Nurses



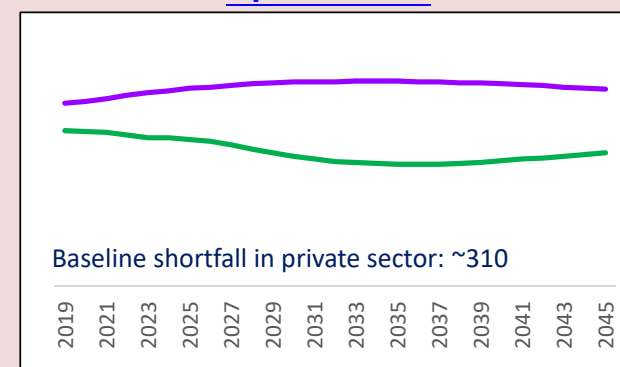
Dental Hygienists



Medical Laboratory Technologists

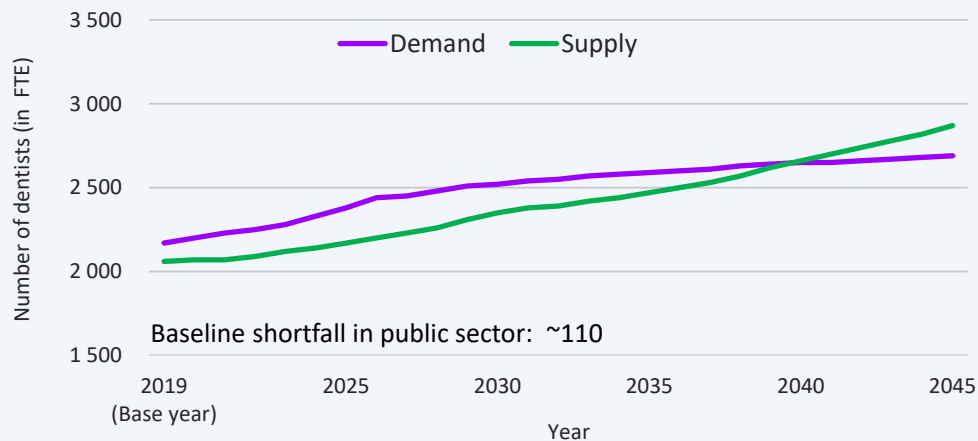


Optometrists

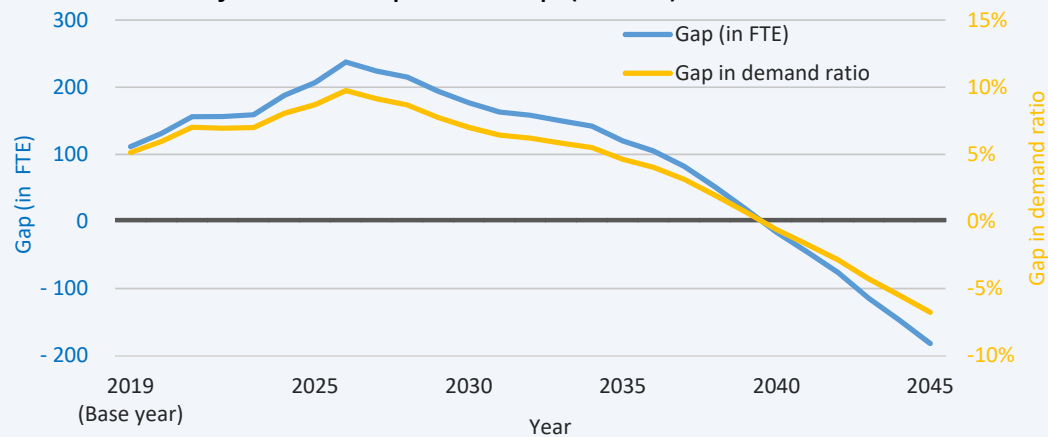


Dentists

Projected Manpower Demand / Supply (in FTE) for Dentists



Projected Manpower Gap (in FTE) for Dentists



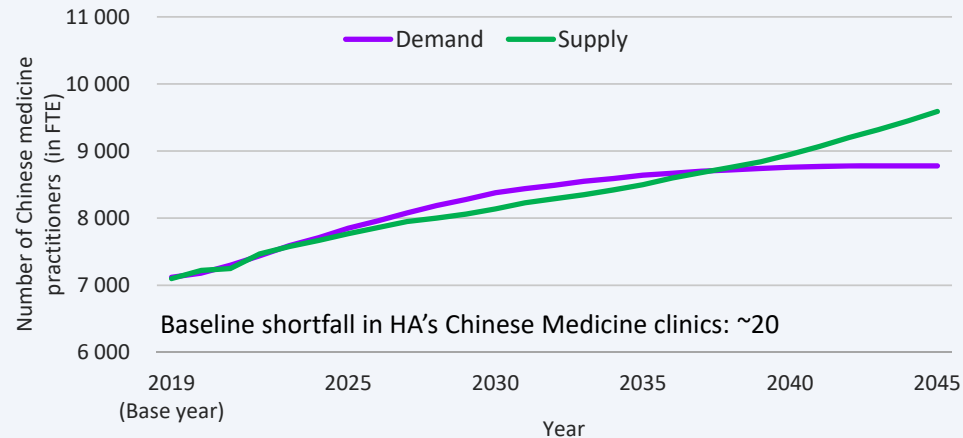
Policy initiatives:

- Enhancement of dental services in public sector
- Known and planned measures to enhance oral health of the community

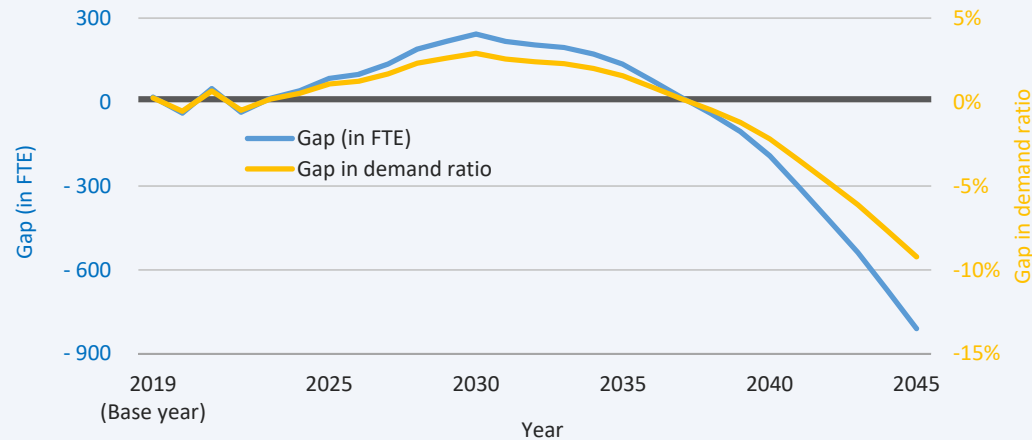


Chinese Medicine Practitioners

Projected Manpower Demand / Supply (in FTE) for Chinese Medicine Practitioners



Projected Manpower Gap (in FTE) for Chinese Medicine Practitioners

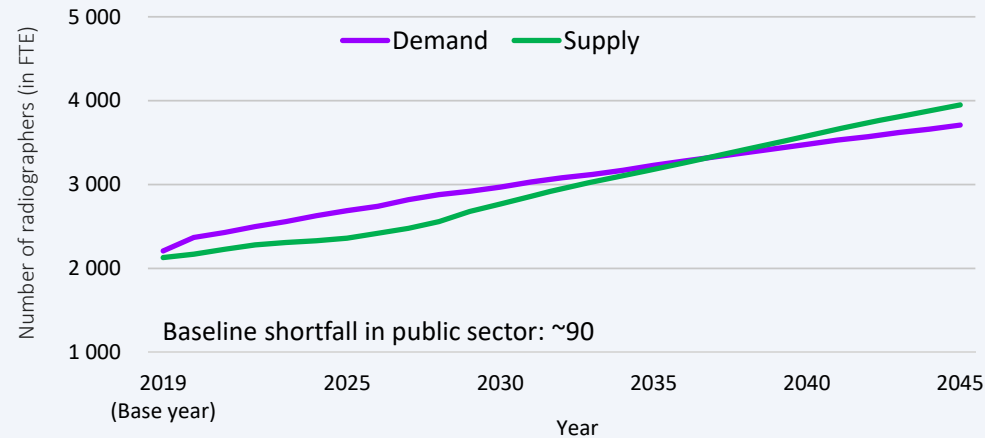


Policy initiatives:

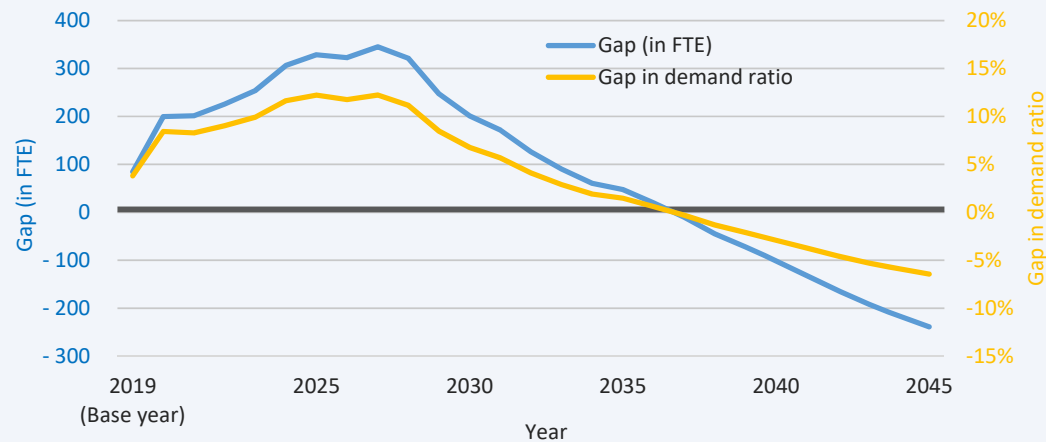
- Development of Chinese Medicine Hospital
- Increase in annual quota of subsidised Chinese medicine services at the 18 Chinese Medicine Clinics
- Regularization of Integrated Chinese-Western Medicine (ICWM) Programme in Hospital Authority (HA)
- Health Bureau's Chinese Medicine Unit
- District Health Centre

Radiographers

Projected Manpower Demand / Supply (in FTE) for Radiographers



Projected Manpower Gap (in FTE) for Radiographers



Policy initiatives:

- Development of Chinese Medicine Hospital and private hospitals
- Breast Cancer Screening pilot programme



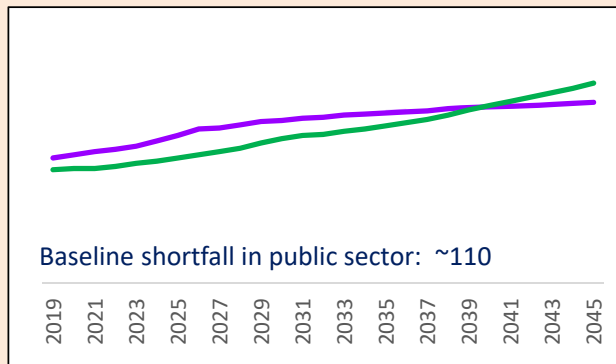
Results Summary (2): Healthcare Professions with Manpower Shortfall in the Future 20 Years

— Demand — Supply

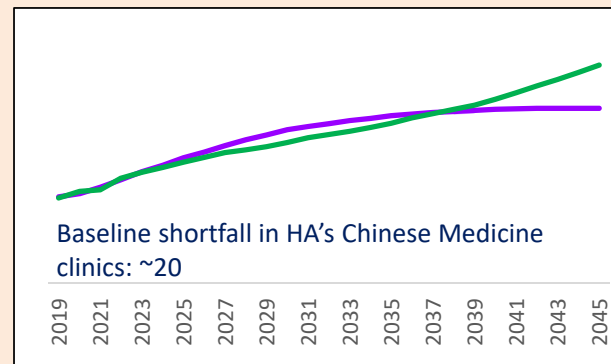
Notes:

1. The vertical axis scale varies between charts.
2. The manpower demand and supply are calculated in terms of full-time equivalents.

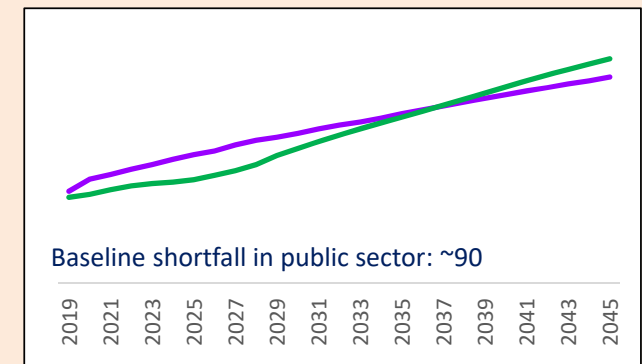
Dentists



Chinese Medicine Practitioners

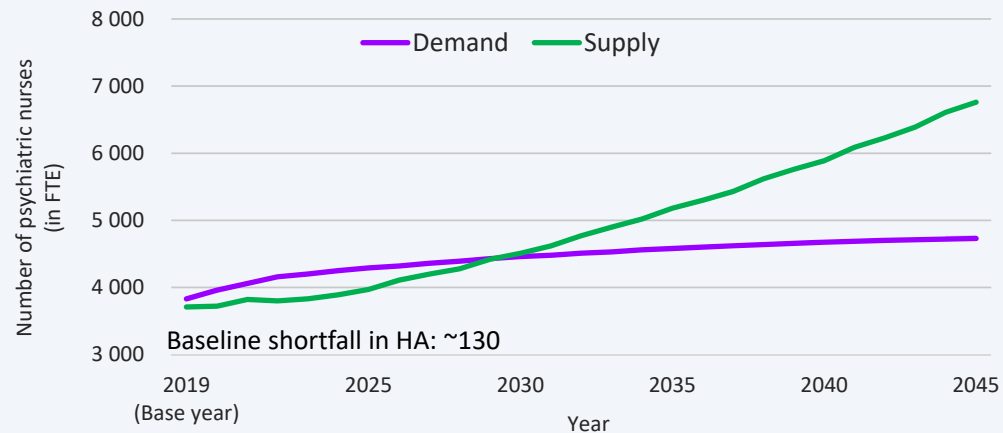


Radiographers

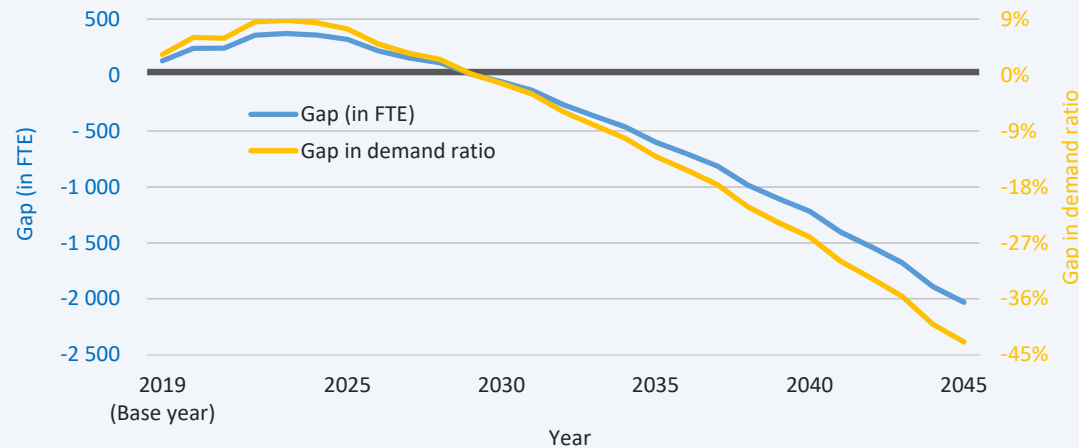


Psychiatric Nurses

Projected Manpower Demand / Supply (in FTE) for Psychiatric Nurses



Projected Manpower Gap (in FTE) for Psychiatric Nurses



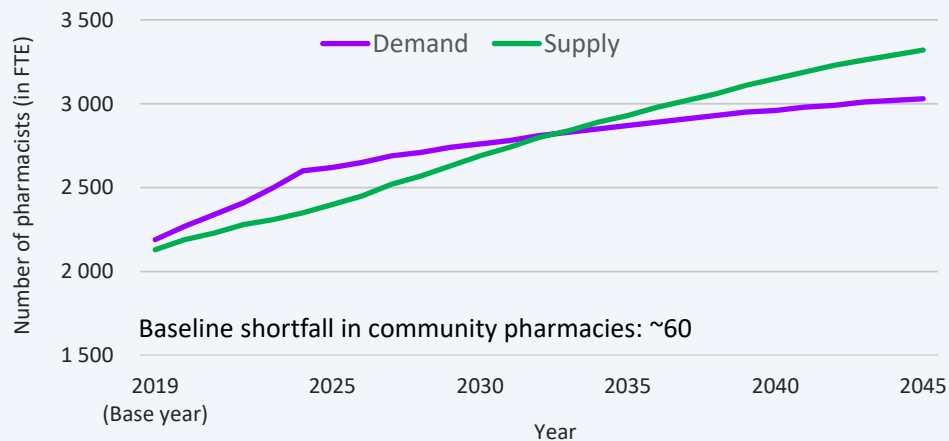
Policy initiatives:

- Further enhancement of personalised care programme in HA

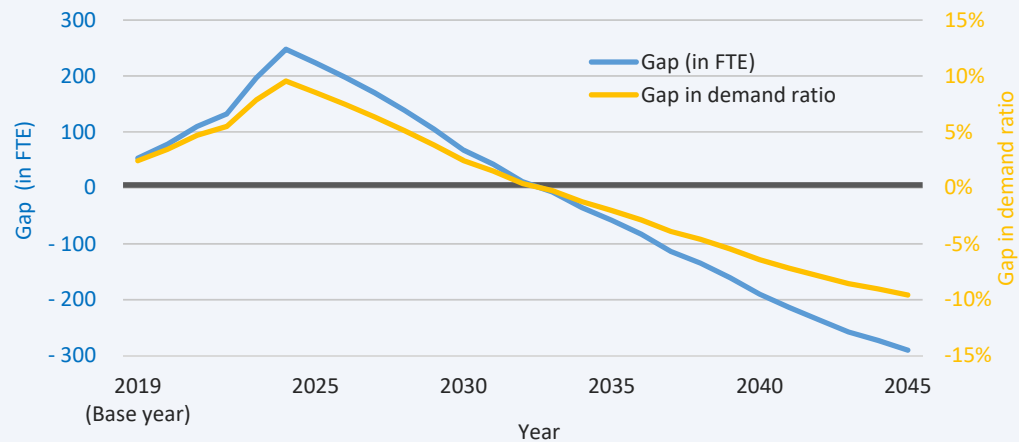


Pharmacists

Projected Manpower Demand / Supply (in FTE) for Pharmacists



Projected Manpower Gap (in FTE) for Pharmacists



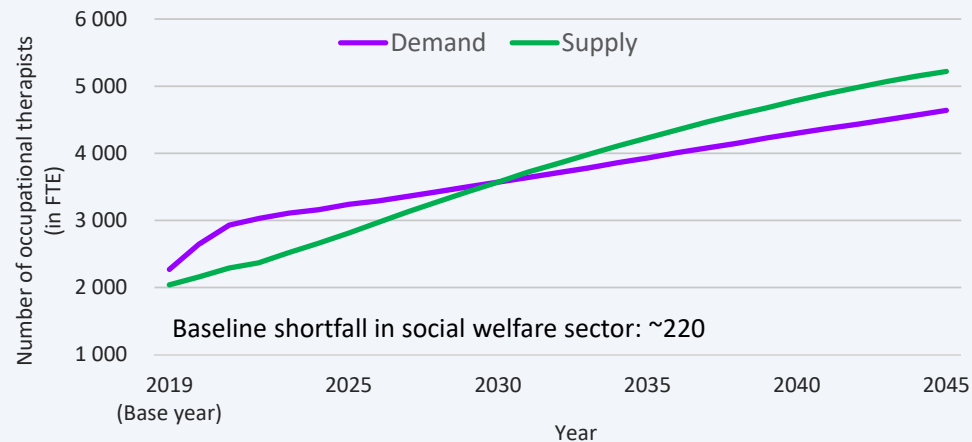
Policy initiatives:

- Planned services in DH
- Development of Chinese Medicine Hospital and private hospitals
- District Health Centre

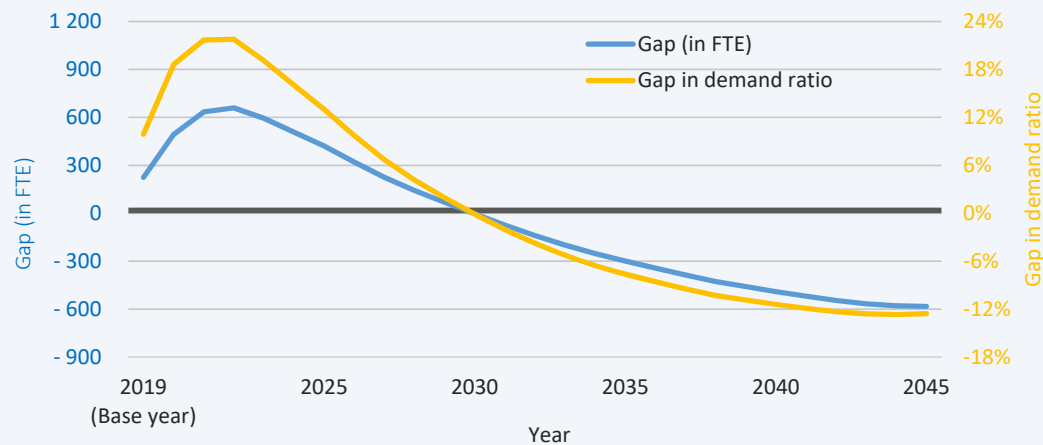


Occupational Therapists

Projected Manpower Demand / Supply (in FTE) for Occupational Therapists



Projected Manpower Gap (in FTE) for Occupational Therapists



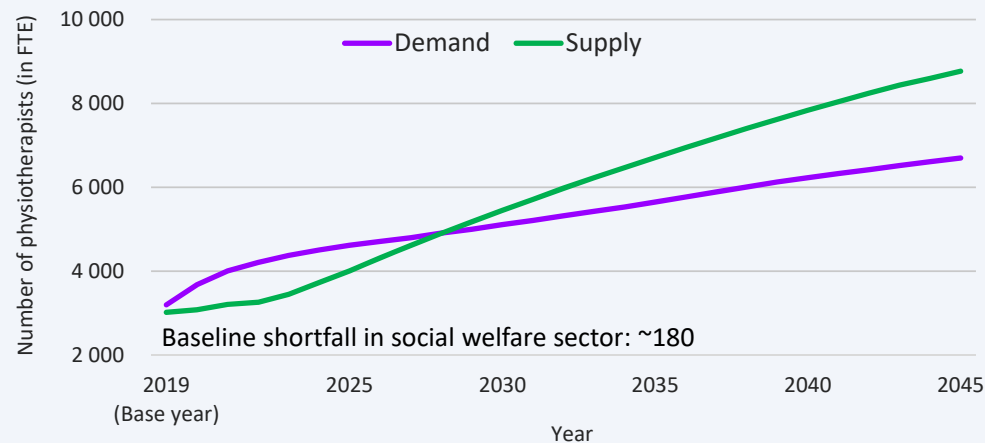
Policy initiatives:

- Known and planned subvented and non-subvented elderly / rehab / community services
- Development of Chinese Medicine Hospital and private hospitals
- District Health Centre

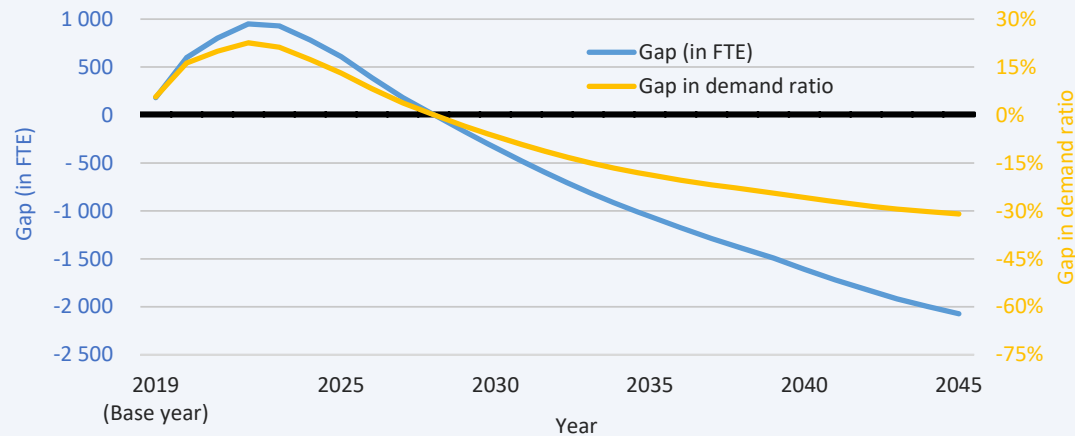


Physiotherapists

Projected Manpower Demand / Supply (in FTE) for Physiotherapists



Projected Manpower Gap (in FTE) for Physiotherapists



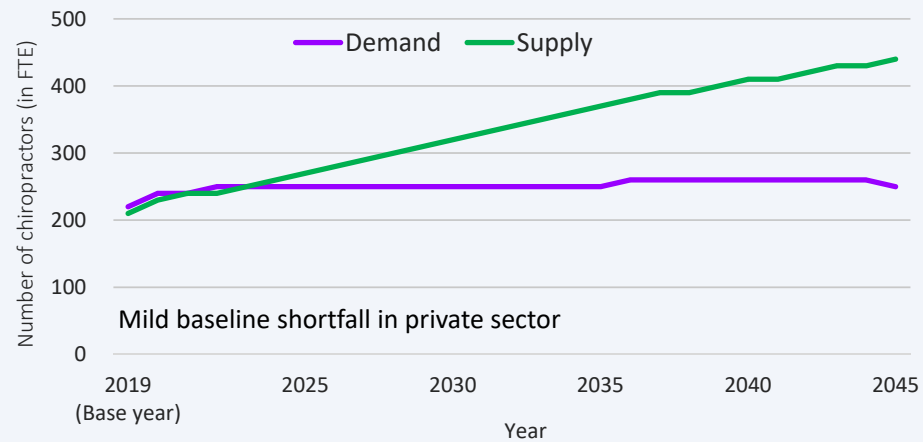
Policy initiatives:

- Known and planned subvented and non-subvented elderly / rehab / community services
- Development of Chinese Medicine Hospital and private hospitals
- District Health Centre / Chronic Disease Co-care Pilot Scheme

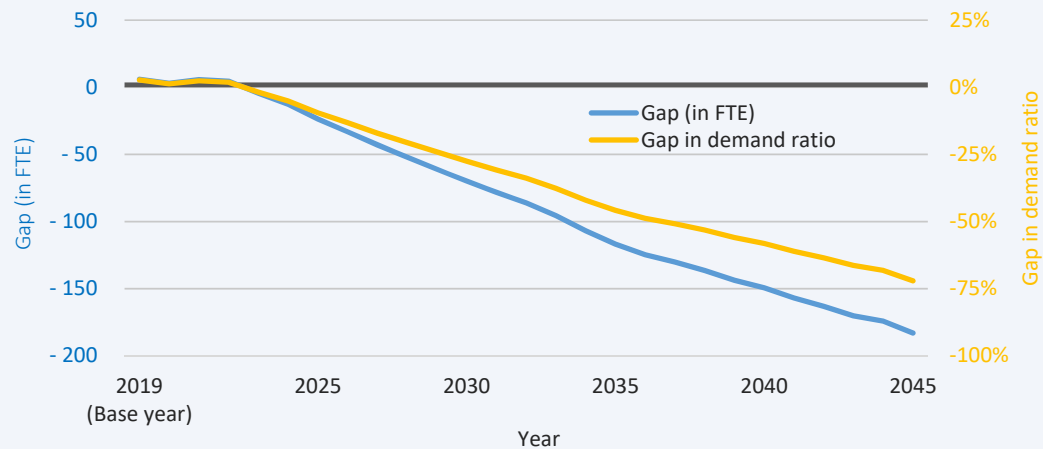


Chiropractors

Projected Manpower Demand / Supply (in FTE) for Chiropractors

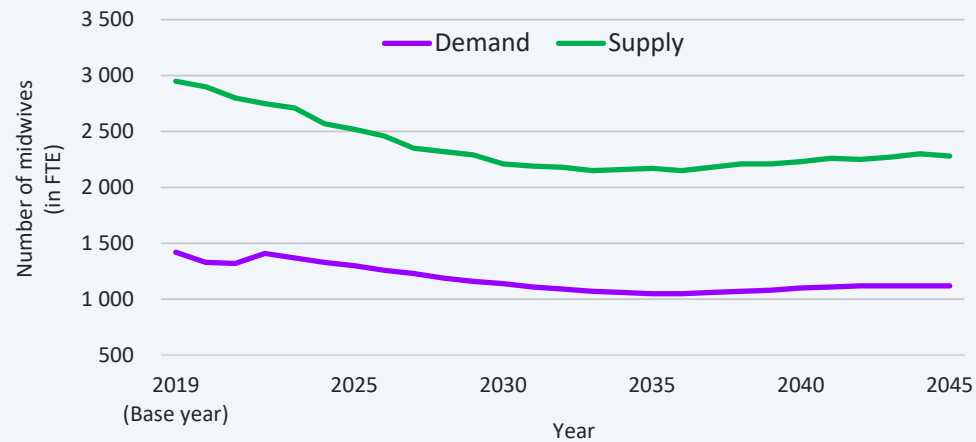


Projected Manpower Gap (in FTE) for Chiropractors

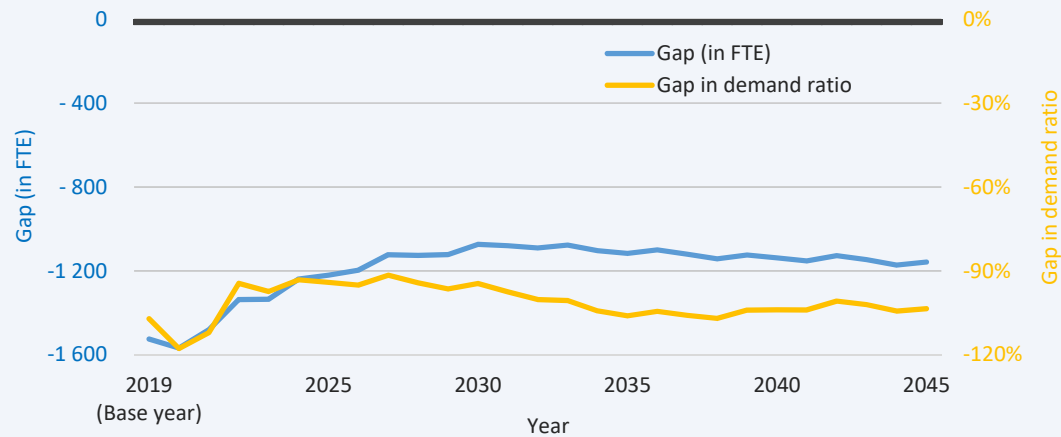


Midwives

Projected Manpower Demand / Supply (in FTE) for Midwives



Projected Manpower Gap (in FTE) for Midwives



Results Summary (3): Other Healthcare Professions

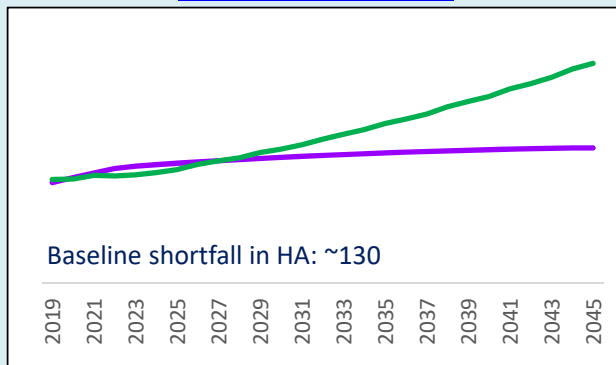
— Demand — Supply

Notes:

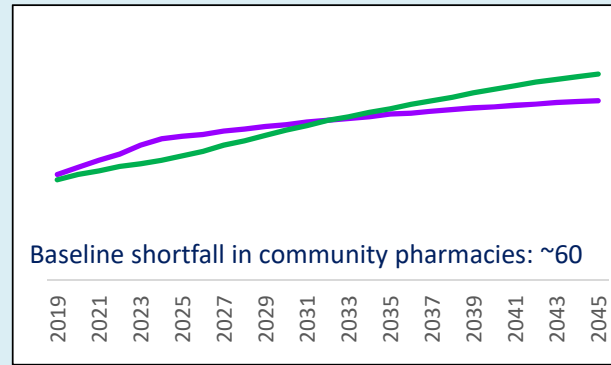
1. The vertical axis scale varies between charts.
2. The manpower demand and supply are calculated in terms of full-time equivalents.

Healthcare professions with balanced manpower supply and demand in the next 10 years:

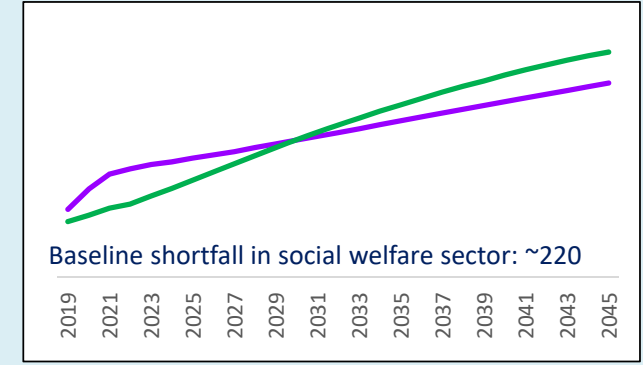
Psychiatric nurses



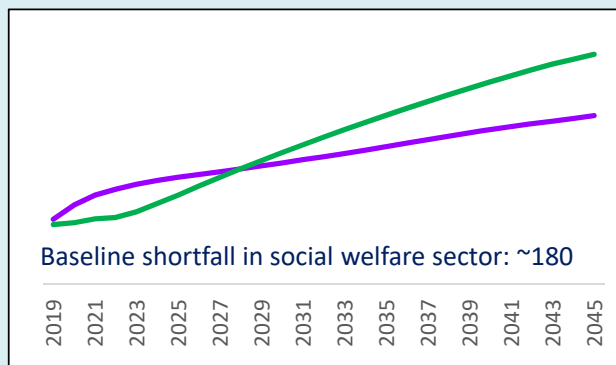
Pharmacists



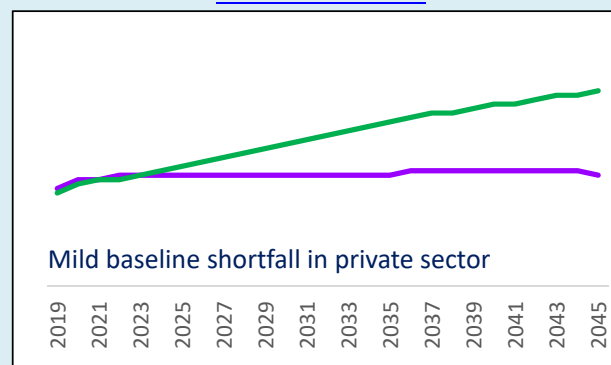
Occupational Therapists



Physiotherapists

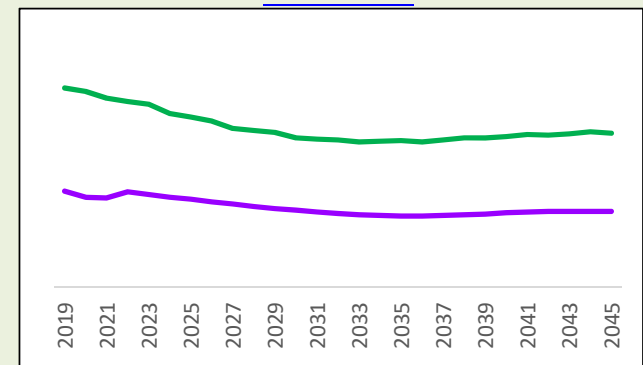


Chiropractors



Healthcare professions with sufficient manpower throughout the projection period:

Midwives



Thank you

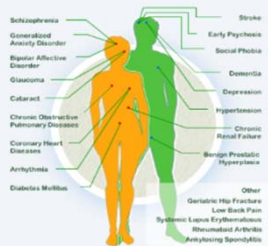
Healthcare Manpower Projection Models and Key Assumptions

Manpower Demand Projection Model

Population projection



Demographic changes



Increase in chronic patients

Parameters:
Utilisation rates of various healthcare services



Project

Future healthcare service workload



Conversion parameters:
Average time required and annual throughput delivered per staff for various healthcare services, etc.



Project

Future healthcare manpower requirement to meet service needs

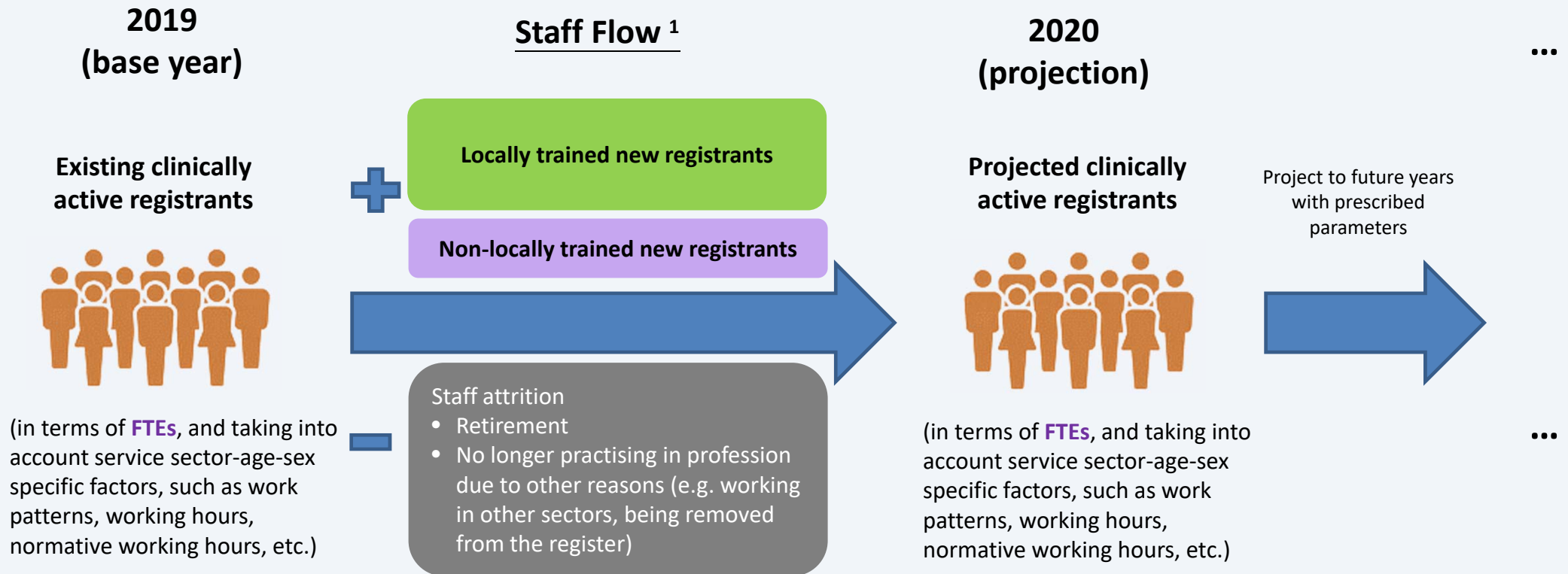


(in terms of full-time equivalents (FTE))

Notes:

1. The demand projection also covers the healthcare professionals working in the academic sector, in which the requirement is assumed to grow according to the projected growth of the local student numbers under healthcare training.
2. The additional manpower required for implementing planned initiatives of new services and the service commencement of new hospitals or hospitals after expansion is also considered.

Manpower Supply Projection Model



Notes:

1. With reference to historical data, formulate the parameters (such as registration rates of locally-trained graduates and renewal rates for various healthcare professions) for projecting the future manpower supply.
2. In this round projection, the impact of attrition waves of healthcare professionals in 2020 to 2022 and the additional non-locally trained doctors through the new pathway of special registration have also been considered in the manpower supply projection.

Key model assumptions of the manpower projections

Demand Projection	Supply projection
<ul style="list-style-type: none">• The projected growth in service demand, and thus the future manpower requirement, is not constrained by possible limiting factors such as facilities or manpower supply.• The projection parameters are constructed mainly based on the existing service delivery model and assumed to remain the same as in the base year over the projection horizon.• The impact of technology advancement and changes in the macroeconomic environment are not considered, assuming that they do not impact on the future service demand and manpower requirement.	<ul style="list-style-type: none">• The projection parameters are worked out based on the current workforce participation and work pattern of individual healthcare professionals. In general, such parameters, as well as the training and registration systems, are assumed to remain unchanged as in the base year throughout the projection period ¹. <p>1. The attrition rates in 2020 to 2022 are compiled according to the actual data, in order to factor in the impact of attrition waves on the healthcare manpower supply.</p>