UNITED ARAB EMIRATES
MINISTRY OF HEALTH & PREVENTION

UAE NATIONAL HEALTH WORKFORCE ACCOUNT (NHWA)

REPORT 2021-2022

MINISTRY OF HEALTH & PREVENTION (MOHAP)
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4. FOREWORD

The Statistics and Research Centre (SARC) of MOHAP have prepared the report for the World Health Organization (WHO) devised National Health Workforce Account (NHWA) programme for UAE for the calendar year 2021 and 2022. This is the 3rd Edition of NHWA Report for the UAE. Technical details of this entire programme can be viewed at https://iris.who.int/handle/10665/374320.

This report contains information about the below areas of NHWA:

- Definition, characteristics and purpose behind implementation of this programme for UAE.
- Indicator values affecting health labour market cutting across education, labour workforce and population needs.
- Module wise detailed description and values of each indicator.
- Key comparisons of NHWA indicator values between UAE and other countries.
- MOHAP recommendations for addressing areas of concern with health workforce policies.
- Challenges faced by us during implementation.

The rationale behind presenting this report is for obtaining a holistic view of the UAE health workforce situation in terms of workforce statistics, skill and specialization adequacy, key policy regulations and information systems. We present the distinguishing aspects of UAE health workforce along with challenges and improvement areas, which when addressed, will catapult UAE's health workforce to the greatest heights of population satisfaction and worker efficacy.

One of the limitations of this report is that we could not publish results for all of the NHWA indicators because those data items were not available with the identified stakeholders. This has been highlighted in the chapter 10 relating to Challenges with NHWA implementation. We are highly optimistic that these pending areas shall be addressed in the subsequent NHWA edition.

5. ABBREVIATIONS & ACRONYMS

Abbreviation	Full Form
CPD	Continuing Professional Development
DHA	Dubai Health Authority
DHCC	Dubai Health Care City
DOH	Department of Health – Abu Dhabi
FAHR	Federal Authority for Government Human Resources
FCSC	Federal Competitiveness and Statistics Center
HIS	Health Information System
HRHIS	Human Resource for Health Information System
HWF	Health Workforce
IHR	International Health Regulation
IPE	Inter-professional Education
MOE	Ministry of Education
MOE – HE	Ministry of Education – Higher Education
MOHAP	Ministry of Health & Prevention
MOHRE	Ministry of Human Resources & Emiratisation
SDG	Sustainable Development Growth
UHC	Universal Health Coverage
WHO	World Health Organization

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9. CHAPTER 1: INTRODUCTION TO NATIONAL HEALTH WORKFORCE ACCOUNT

9.1 Definition

The National Health Workforce Account (NHWA) is a system developed under the direction of the World Health Organization (WHO) Health Workforce Department using which countries can collect evidence-based data pertaining to the health workforce, which is progressively monitored using a set of indicators. The health workforce data collected encompasses areas such as health workforce stock and distribution, education and training - capacity, regulations and finances, employment characteristics and working conditions, workforce expenditure and remuneration, skill-mix distribution, governance & policies and human resource information systems.

9.2 Characteristics

The NHWA is a data-intensive programme which has the below mentioned characteristics:

- Provides a harmonized and integrated method for health workforce data collection.
- Technically defines a set of indicators for precise data acquisition and analysis.
- Promotes a multi-stakeholder synergistic environment for holistic data generation.
- Improves the interoperability of health information systems spread across multiple public and private entities.
- Creates an official platform for secure dissemination of health workforce indicator data.

9.3 Purpose

The primary purpose of the NHWA programme is to facilitate the standardization and interoperability of health workforce data and track performance towards Universal Health Coverage (UHC).

The health workforce indicator data is collected, reconciled, analyzed, verified and reported in order to meet below objectives:

Figure 1 - NHWA Purpose

The implementation of NHWA programme shall serve following purposes for UAE:

- Achieve the Universal Health Coverage and Sustainable Development Goals milestones.
- First country to report on all NHWA modules.
- Provide best in class services and attain top global leadership in healthcare.
- Achieve holistic development of healthcare education and systems.
- Better planning for dealing with increasing healthcare demand.

9.4 Benefits

The implementation of NHWA provides benefits on global, national and regional levels.

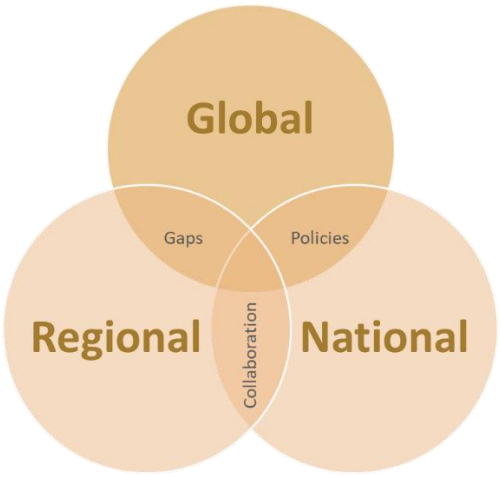

Figure 2 - NHWA Benefits

At Global level, NHWA implementation results in below benefits:

- Formulation of evidence-based health workforce plans and policies.
- Data Standardization and interoperability.
- Establishment of a benchmark for health workforce data standards.
- Facilitation of standardized data comparisons against other countries.

At National Level, NHWA implementation results in below benefits:

- Review of National health workforce data.
- Identification of gaps, shortages and mismatches in health workforce data.
- Assessment of existing policies and plans that impact the healthy workforce.
- Strengthened multi-stakeholder collaboration resulting in creation of inter-sectoral policies, strategies and plans.

At Regional Level, NHWA Implementation results in below benefits:

- Accurate capture of region level health workforce data.
- Facilitation of cross-country capacity building, information and data exchange.
- Aid in sophisticated research about future trends of health workforces regionally.

9.5 Version Update

The **1st edition** of the **National Health Workforce Accounts (NHWA)** was officially launched in the year **2017**. Over time, **181 countries** over the world had appointed official focal points who were responsible in the successful implementation of this framework, in their respective country. This rapid implementation of NHWA in numerous countries and active participation of WHO regional offices and country focal points resulted in significant improvement in the overall availability and quality of health workforce (HWF) data. The data monitored and reported through NHWA has contributed to generating evidence on various policy issues, including HWF shortages, ageing, migration, and inequalities related to gender and subnational disparities.

In addition to the above-mentioned benefits of implementing the NHWA by countries, WHO was able to reflect on the progress, priorities, gaps, and country-specific adaptations of NHWA. A plethora of feedback for the overall programme was also taken into consideration by them. For example,

We at the **Ministry of Health & Prevention** had given a walkthrough of our **2018 version** of **NHWA UAE Report** to **WHO stakeholders** . They complimented the efforts of this report and were in awe of the diversity of information contained within the report. Moreover, we had even suggested removing certain unclear indicators and requested additional details for some of them.

Accordingly, to move towards a more robust, comprehensive, and immaculate version, WHO had recently released the **NHWA V2.0** in the year **2023**.

The **2nd edition** of **NHWA** ensures continuity in the standardization of HWF statistics and maintaining the legacy of NHWA v1.0. It incorporates necessary changes and adaptations to accommodate priority data needs for healthcare workers related to new initiatives and challenges. The implementation of NHWA remains committed to core principles, which include a systems-strengthening approach, progressive implementation, multi-sectoral governance, and diversification of data sources.

Few high-level differences between the two version of the NHWA are present below;

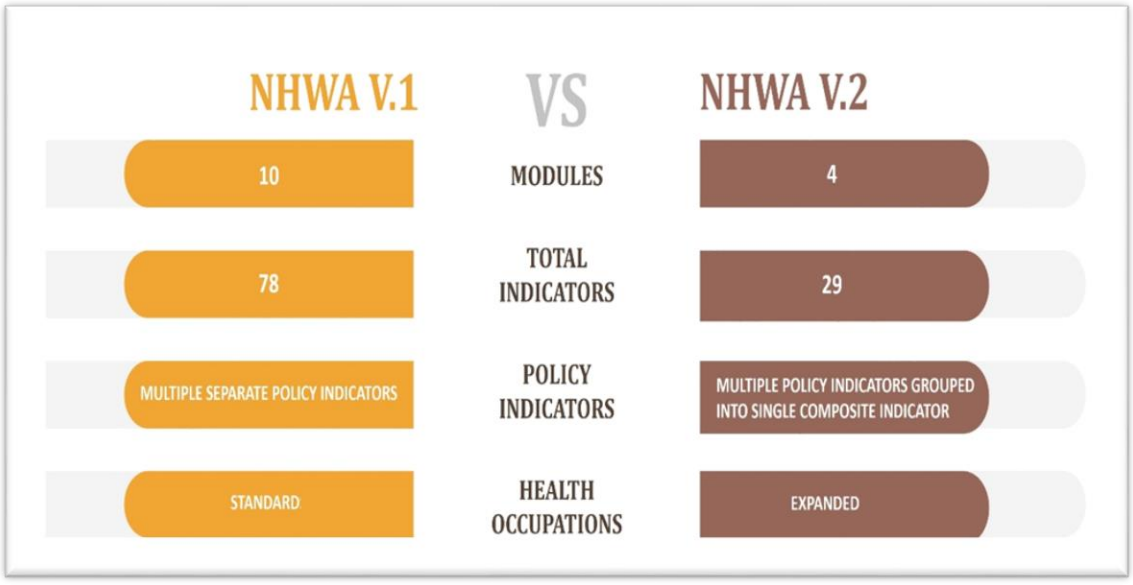

Figure 3 - NHWA V2.0 vs V1.0

10. CHAPTER 2: NHWA V2.0 MODULES

The NHWA V2.0 contains a set of 29 core indicators, spread over 4 modules that aim to support national-level HWF policies to progress towards UHC and SDGs. The indicators in the 4 modules feed into the labour market components related to 1. Stock and Flow, 2. Education, 3. Finance & Expenditure and 4. Working Conditions, Governance and Leadership.

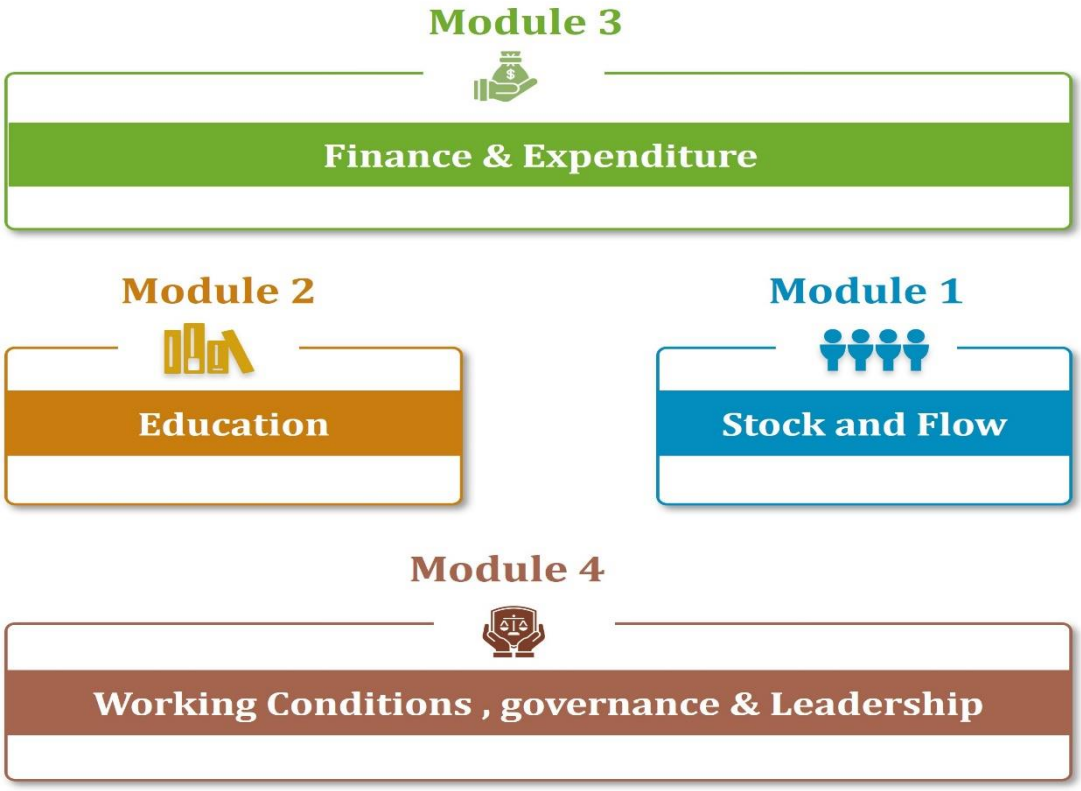

Figure 4 - NHWA 2.0 Modules

11. CHAPTER 3: NHWA UAE INDICATORS VALUES

11.1 HEALTH WORKFORCE - STOCK AND FLOW INDICATORS

Indicator Id	Indicator Title	2021 Value	2022 Value	Data Source
1.01	Health worker density	**146.43** (per 10 000 population)	**157.3** (per 10 000 population)	DOH DHA EHS MOPA MOHAP
1.02	Health worker density at subnational level	Abu Dhabi : **203.49** Dubai : **133.50** Sharjah : **101.10** Ajman : **86.70** UAQ : **173.90** RAK : **95.90** Fujairah : **95.10** (per 10 000 population)	Abu Dhabi : **212.30** Dubai : **148.60** Sharjah : **109.40** Ajman : **94.00** UAQ : **175.90** RAK : **101.10** Fujairah : **99.20** (per 10 000 population)	DOH DHA EHS MOPA MOHAP
1.03	Health worker distribution by age group	<25 : **1.86** 25–34 : **41.95** 35–44 : **33.42** 45–54 : **15.45** 55–64 : **5.51** >=65 : **1.81** Percent (%)	<25 : **1.86** 25–34 : **41.95** 35–44 : **33.42** 45–54 : **15.45** 55–64 : **5.51** >=65 : **1.81** Percent (%)	Same as above
1.04	Health worker distribution by sex	Female : **64.06** Male : **35.94** Percent (%)	Female : **64.17** Male : **35.83** Percent (%)	Same as above
1.05	Health worker distribution by facility ownership	Public : **32.62** Private : **67.38** Percent (%)	Public : **31.34** Private : **68.66** Percent (%)	Same as above
1.06	Health worker distribution by facility type	Hospitals : **43.07** Ambulatory : **34.23** Retail : **8.78** Others : **6.39** Govt. Admin : **2.88** Residential : **2.60** Ancillary : **2.05** Percent (%)	Hospitals : **43.00** Ambulatory : **36.45** Retail : **9.41** Others : **4.35** Ancillary : **2.74** Residential : **2.25** Govt. Admin : **1.80** Percent (%)	Same as above

Table 1 - Stock and Flow Indicator Values

11.2 HEALTH WORKFORCE - EDUCATION INDICATORS

Indicator Id	Indicator Title	2021 Value	2022 Value	Data Source
2.05	Duration of education and training	**General Practitioner** Bachelors - **5** (Years) **Specialist Practitioner** Doctorate - **3** (Years) **Dentist** Masters - **3** (Years) **Pharmacist** Masters - **2** (Years) **Nursing Professional** Masters - **1.5** (Years)	**General Practitioner** Bachelors - **5** (Years) **Specialist Practitioner** Doctorate - **3** (Years) **Dentist** Masters - **3** (Years) **Pharmacist** Masters - **2** (Years) **Nursing Professional** Masters - **1.5** (Years)	Same as above
2.06	Accreditation mechanisms for education and training institutions and their programmes	**Partly**	**Partly**	CAA
2.07	Standards for education and training programmes	**Partly**	**Partly**	CAA, TDC
2.07.1	Existence of national and/or subnational standards for social accountability in accreditation mechanisms of training programmes	**Yes**	**Yes**	CAA
2.07.2	Existence of national and/or subnational standards for the social determinants of health in accreditation mechanisms of training programmes	**Yes**	**Yes**	CAA
2.07.3	Existence of national and/or subnational standards for interprofessional education in accreditation mechanisms	**Partly**	**Partly**	CAA
2.07.4	Existence of cooperation between health workforce education and training institutions and regulatory bodies to agree on accreditation standards	**Yes**	**Yes**	CAA
2.07.5	Existence of national systems for continuing professional development	**Partly**	**Partly**	CAA, TDC
2.07.6	Existence of in-service training as an element of national	**Yes**	**Yes**	CAA

Indicator Id	Indicator Title	2021 Value	2022 Value	Data Source
	education plans for the health workforce			
2.07.7	Existence of national and/or subnational standards for CHW curriculum	**Yes**	**Yes**	CAA

Table 2 - Education Indicator Values

11.3 HEALTH WORKFORCE - WORKING CONDITIONS, GOVERNANCE AND LEADERSHIP

Indicator Id	Indicator Title	2021 Value	2022 Value	Data Source
4.01	Labour regulations and policies for health workforce	**Partly**	**Partly**	EHS DOH DHA
4.01.1	Existence of national/subnational policies/laws regulating working hours and conditions	**Yes**	**Yes**	Same as above
4.01.2	Existence of national/subnational policies/laws regulating minimum wage	**Partly**	**Partly**	
4.01.3	Existence of national/subnational policies/laws regulating social protection	**Partly**	**Partly**	
4.01.4	Existence of national/subnational policies/laws regulating dual practice	**Partly**	**No**	
4.01.6	Existence of national/subnational policies/laws for prevention of attacks on health workers	**Yes**	**Yes**	Same as above
4.01.7	Existence of national/subnational care packages for mental wellbeing of health workers	**Partly**	**Partly**	
4.01.8	Existence of mechanisms for in-kind renumeration to promote rural retention	**Yes**	**Yes**	
4.01.9	Existence of regulatory mechanisms for promoting health worker safety	**Partly**	**Partly**	

Indicator Id	Indicator Title	2021 Value	2022 Value	Data Source
4.01.10	Existence of regulatory mechanisms to ensure oversight of the activities of health workers within the private sector	**Yes**	**Yes**	
4.01.11	Existence of remuneration of CHW through salary	**NA**	**NA**	
4.01.12	Existence of advanced nursing roles	**Yes**	**Yes**	EHS
4.02	Health workforce governance and leadership capacity	**Yes**	**Yes**	MOHAP
4.02.1	Existence of institutional mechanisms or bodies to coordinate an intersectoral health workforce agenda	**Yes**	**Yes**	Same as above
4.02.2	Existence of a health workforce unit in the Ministry of Health responsible for developing and monitoring policies and plans on health workforce	**Yes**	**Yes**	
4.02.3	Existence of mechanisms and models for health workforce planning	**Yes**	**Yes**	
4.02.4	Existence of national education plans for the health workforce, aligned with the national health plan and the national health workforce strategy/plan	**Yes**	**Yes**	Same as above
4.02.5	Existence of institutional models for assessing and monitoring staffing needs for health service delivery	**Yes**	**Yes**	
4.03	Share of women in leadership role	**Not Reported**	**45%**	MOHAP EHS DHA DOH MOPA
4.04	Availability of human resources to implement International Health Regulation core capacity requirements	**Sustainable**	**Sustainable**	MOHAP
4.05	Capacity of national human resources for health information systems	**Partly**	**Partly**	MOHAP DOH DHA

Indicator Id	Indicator Title	2021 Value	2022 Value	Data Source
	(HRHIS) to monitor key metrics relevant for national health workforce planning and policy-making and for global monitoring frameworks			EHS MOPA
4.05.1	Ability of HIS to report on HRH data	**Yes**	**Yes**	DOH DHA EHS MOPA
4.05.2	Ability of HRHIS (or other mechanism) to generate information to report on health workforce metrics for International Health Regulations	**No**	**No**	
4.05.3	Ability of HRHIS (or other mechanism) to generate information to report on implementation of the WHO Global Code of Practice on the International Recruitment of Health Personnel	**Partly**	**Partly**	MOHAP
4.05.4	Ability of HRHIS to generate information for reporting on outputs from education and training institutions	**No**	**No**	
4.05.5	Ability of HRHIS to generate information to track entrants to the labour market	**Yes**	**Yes**	
4.05.6	Ability of HRHIS to generate information to track active stock on the labour market	**Yes**	**Yes**	MOHAP
4.05.7	Ability of HRHIS to generate information to track exits from the labour market	**Yes**	**Yes**	
4.05.8	Ability of HRHIS to generate geocoded information on the location of health facilities	**Partly**	**Partly**	
4.05.9	Ability of HRHIS to monitor gender pay gap	**Yes**	**Yes**	

Table 3 - Working Conditions, Governance and Leadership Indicator Values

12. CHAPTER 4: MODULE 1 – STOCK AND FLOW

Overview: This module provides a detailed overview of the below aspects of health workforce:

- **Stock** – The total health workforce within the country as well as within all regions of the country in comparison to total population. This data enables ascertaining adequacy of health workforce for delivering UHC-oriented services.
- **Distribution** – The bifurcation of health workforce across gender and various age groups. The distribution of health workforce based on employment in different types of facilities and facilities ownership. This data enables gap detection in certain occupational sectors and highlights mismatches in geographical or sectoral distribution.
- **Migration** – Focus on quantity of foreign-born and foreign-trained workers in a country thereby revealing amount of reliance on foreign health workforce. This data will assist countries in meeting the GSHRH target of halving dependency on foreign-trained health workers through implementation of WHO Global Code of Practise.

Kindly Note - We have not received data for a few indicators of this module. Details are present in section: 17.217.2 Past Recommendations for existing No/Partly Capability Indicators

12.1 Key Areas

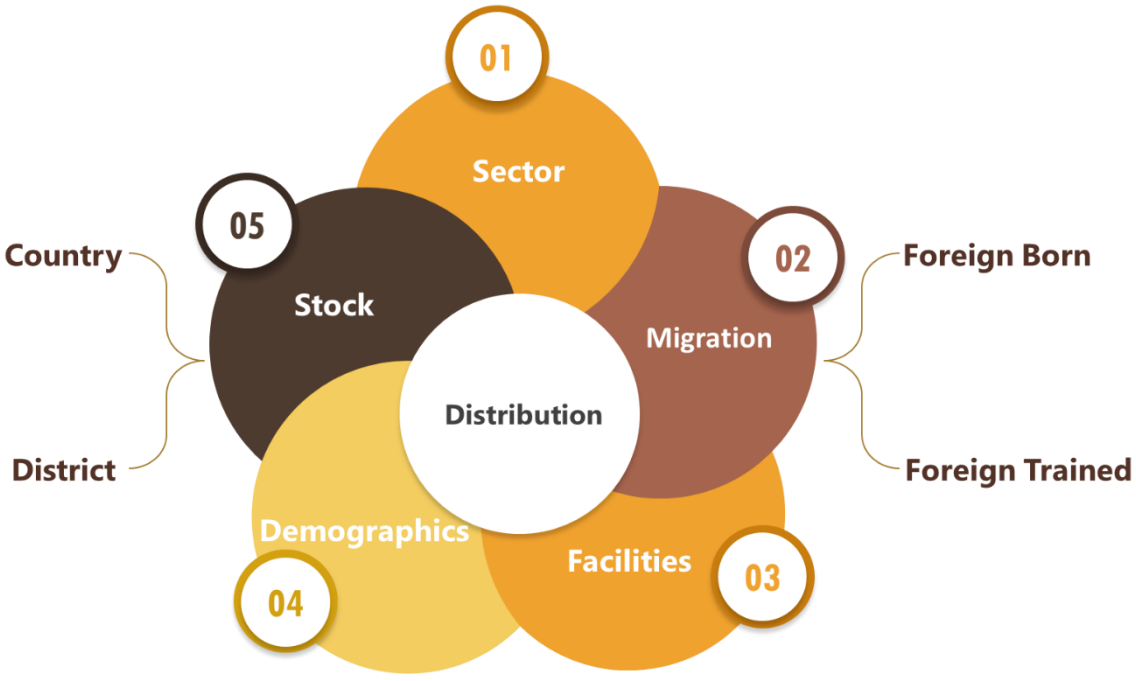

Figure 5 - Module 1 Key Areas

12.2 Indicator Data

Indicator Id	1.01	
Name	Health worker density	
Definition	Number of health workers per 10 000 population inclusive of Medical Doctors, Dentists, Nurses, Pharmacists and Technicians.	
Numerator	Number of health workers, defined in headcounts	
Denominator	Total population	
Value	**146.43 (2021)**	**157.30 (2022)**
Unit	**Per 10 000 population**	
Level	UAE	
Data Sources	Department of Health (DOH) Dubai Health Authority (DHA) Emirates Health Services (EHS) Ministry of Health and Prevention (MOHAP) Ministry of Presidential Affairs (MOPA)	
Related Facts	• **Manpower** is the common terminology used in the UAE in relation to Health Workforce data. • Above data has been chiefly derived and aggregated from the **Licensing Systems** of the mentioned data sources. • The Ministry of Health & Prevention (MOHAP) presents its health workforce data based on 2 systems; namely **BAYANATI (HRHIS system for all Federal Ministries**) and **Licensing System**. • Any **Administrative/Managerial** worker data has been excluded in the density.	

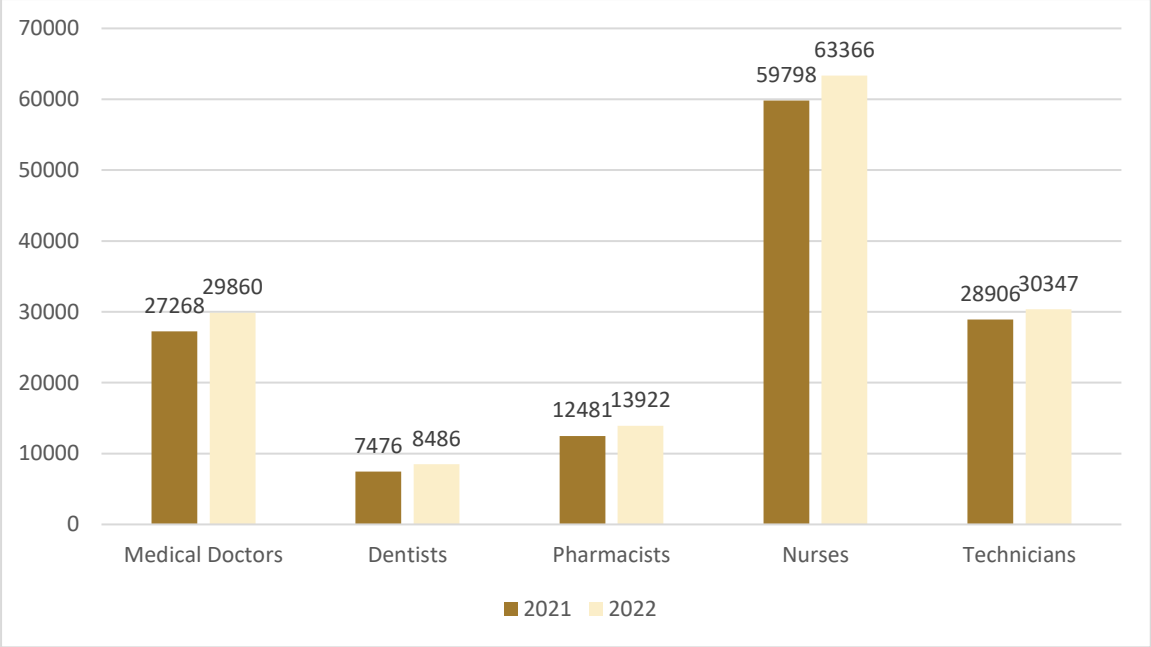

Figure 6 - Category-wise Manpower UAE chart

Category	2021		2022		Increase%
	Total	Per 10 000 population	Total	Per 10 000 population	Year on Year
Medical Doctors	27268	29.4	29860	32.2	9.51
Dentists	7476	8.1	8486	9.1	13.51
Pharmacists	12481	13.4	13922	15.0	11.55
Nurses	59798	64.4	63366	68.3	5.97
Technicians	28906	31.1	30347	32.7	4.99
Total	**135929**	**146.4**	**145981**	**157.3**	**7.4**

Table 4 - Category-wise Manpower Summary

Indicator Id	1.02
Name	Density of health workers per 10 000 population at subnational level
Definition	Number of health workers at subnational administrative units.
Numerator	Number of health workers per region
Denominator	Total population per region
Value	**(2021)** ▪ Abu Dhabi : **203.49** ▪ Dubai : **133.50** ▪ Sharjah : **101.10** ▪ Ajman : **86.70** ▪ Umm Al Quwain : **173.90** ▪ Ras Al Khaimah : **95.90** ▪ Fujairah : **95.10** **(2022)** ▪ Abu Dhabi : **212.30** ▪ Dubai : **148.60** ▪ Sharjah : **109.40** ▪ Ajman : **94.00** ▪ Umm Al Quwain : **175.90** ▪ Ras Al Khaimah : **101.10** ▪ Fujairah : **99.20**
Unit	**Per 10 000 population**
Data Sources	Department of Health (DOH) Dubai Health Authority (DHA) Emirates Health Services (EHS) Ministry of Health and Prevention (MOHAP) Ministry of Presidential Affairs (MOPA)
Related Facts	• Geographically, the UAE is comprised of 7 emirates (mentioned above) and the healthcare regulation is scattered across Central and Emirate-Level regulators. • **MOHAP** (Federal Health Regulatory Authority) is chiefly responsible for the regulation of health systems in the **United Arab Emirates**. • **Emirates Health Services (EHS)** is responsible for the regulation of the public health systems in the **Northern Emirates**. • **Department of Health (DOH)** is responsible for the regulation of healthcare sector in the emirate of **Abu Dhabi**. • **Dubai Health Authority (DHA)** is responsible for overseeing the healthcare sector in the emirate of **Dubai**.

Indicator Id	1.03
Name	Health worker distribution by age group
Definition	Percentage of health workers in different age groups as mentioned below: ▪ <25 ▪ 25–34 ▪ 35–44 ▪ 45–54 ▪ 55–64 ▪ >=65
Numerator	Number of health workers in a specific age group
Denominator	Total number of health workers, defined in headcounts
Value	**(2021)** ▪ <25 : **1.86** ▪ 25–34 : **41.95** ▪ 35–44 : **33.42** ▪ 45–54 : **15.45** ▪ 55–64 : **5.51** ▪ >= 65 : **1.81** **(2022)** ▪ <25 : **1.86** ▪ 25–34 : **41.95** ▪ 35–44 : **33.42** ▪ 45–54 : **15.45** ▪ 55–64 : **5.51** ▪ >= 65 : **1.81**
Unit	**Percent (%)**
Level	UAE
Data Sources	Department of Health (DOH) Dubai Health Authority (DHA) Emirates Health Services (EHS) Ministry of Health and Prevention (MOHAP) Ministry of Presidential Affairs (MOPA)

Indicator Id	1.04	
Name	Health worker distribution by sex	
Definition	Percentage of active health workers by sex.	
Numerator	Number of active health workers by male and female	
Denominator	Total number of male and female health workers, defined in headcounts	
Value	**(2021)** ▪ Male : **35.94** ▪ Female : **64.06**	**(2022)** ▪ Male : **35.83** ▪ Female : **64.17**
Unit	**Percent (%)**	
Level	UAE	
Data Sources	Department of Health (DOH) Dubai Health Authority (DHA) Emirates Health Services (EHS) Ministry of Health and Prevention (MOHAP) Ministry of Presidential Affairs (MOPA)	

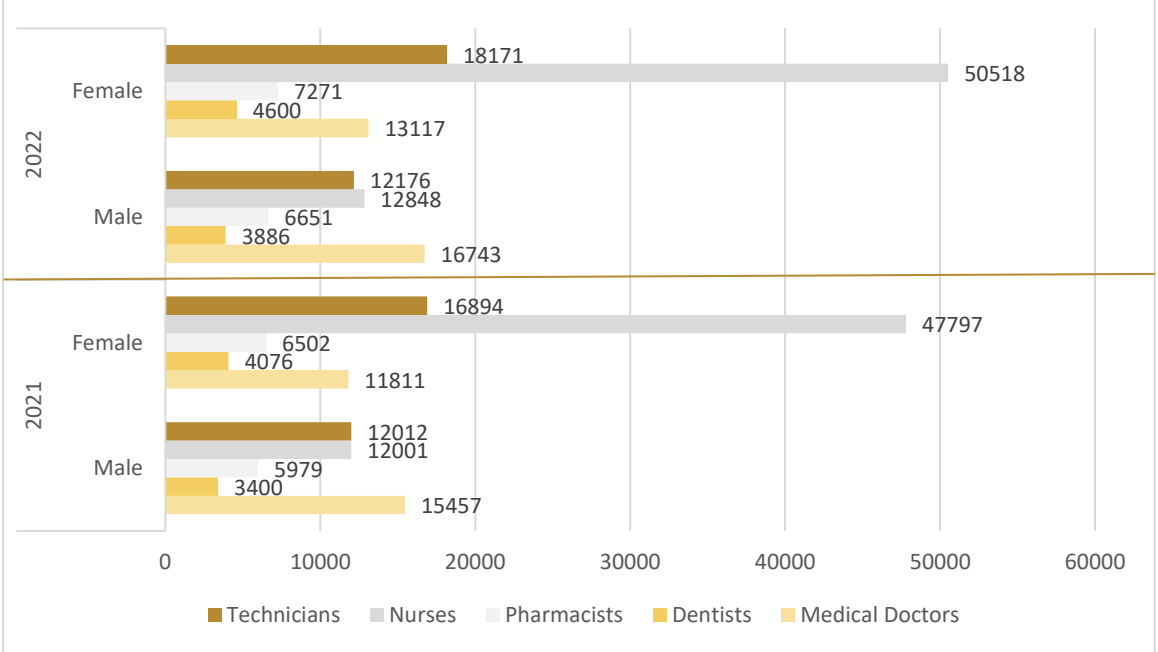

Figure 7 - Gender-wise Manpower chart

Category	2021		2022	
	Male	Female	Male	Female
Medical Doctors	15457	11811	16743	13117
Dentists	3400	4076	3886	4600
Pharmacists	5979	6502	6651	7271
Nurses	12001	47797	12848	50518
Technicians	12012	16894	12176	18171
Total	**48849**	**87080**	**52304**	**93677**

Table 5 - Gender-wise Manpower Summary

Indicator Id	1.05	
Name	Health worker distribution by facility ownership	
Definition	Percentage of health workers employed by type of facility ownership.	
Numerator	Number of health workers, defined in headcounts, working in facilities owned by the given institutional sector	
Denominator	Total number of health workers, defined in headcounts	
Value	**(2021)** Public : **32.62** Private: **67.38**	**(2022)** Public : **31.34** Private: **68.66**
Unit	**Percent (%)**	
Level	UAE	
Data Sources	Department of Health (DOH) Dubai Health Authority (DHA) Emirates Health Services (EHS) Ministry of Health and Prevention (MOHAP) Ministry of Presidential Affairs (MOPA)	

Category	2021		2022	
	Public	Private	Public	Private
Medical Doctors	9184	18084	9979	19881
Dentists	993	6483	965	7521
Pharmacists	1996	10485	1725	12197
Nurses	21856	37942	22471	40895
Technicians	10306	18600	10613	19734
Total	**44335**	**91594**	**45753**	**100228**

Table 6 - Facility Sector-wise Manpower Summary

Indicator Id	1.06		
Name	Health worker distribution by facility type		
Definition	Percentage of health workers employed by facility type.		
Numerator	Number of health workers, defined in headcounts, working in a specific facility type		
Denominator	Total number of health workers, defined in headcounts		
Value		**(2021)**	**(2022)**
	Hospitals	**43.07**	**43.00**
	Ambulatory Facilities	**34.23**	**36.45**
	Retailers	**8.78**	**9.41**
	Govt. Administration	**2.88**	**1.80**
	Others	**6.39**	**4.35**
	Ancillary Services	**2.05**	**2.74**
	Residential Care	**2.60**	**2.25**
Unit	**Percent (%)**		
Level	UAE		
Data Sources	Department of Health (DOH) Dubai Health Authority (DHA) Emirates Health Services (EHS) Ministry of Health and Prevention (MOHAP) Ministry of Presidential Affairs (MOPA)		

12.3 Module Summary

12.3.1 Active Health Workforce Stock – Key Facts (2021,2022)

- **UAE Health Worker Density: 146.43(2021)** and **157.3(2022)** is well above the WHO specified minimum threshold of 44.5.
- **Gender Distribution: >60%** of health workforce is **Female** working across **Nursing** Specialty.
- **Sector Distribution: >60%** of health workforce work in **Private** Healthcare Sector.
- **Facility Distribution**: **>40%** of health workforce stationed in **Hospital** facilities.
- **Age Distribution: >40%** of health workforce belonging to age group **25-34** years.

Table 7 - Module 1 Summary

13. CHAPTER 5: MODULE 2 – EDUCATION

Overview: This module addresses capacity, quality and gender equality in health workforce education and training along with graduation success rate. The benefits of data acquired in this module includes below key areas:

- Enables planning and monitoring for policies related to:
  - Student Selection
  - Admissions
  - Enrolments
  - Teaching staff
- Creates a pool of qualified health workers based on successful graduation.

This module also touches on the regulation and accreditation standards for education and training institutes and their programmes and the incorporation of social aspects and inter-professional education in those standards. The benefits of data acquired in this module includes below key areas:

- Solidifies accreditation process of education institutes
- Aids in Inter-sectoral health workforce agenda creation
- Validates national education plan alignment with national health plan
- Assesses skills taught to population needs
- Enhances quality and relevance of education and training

13.1 Key Areas

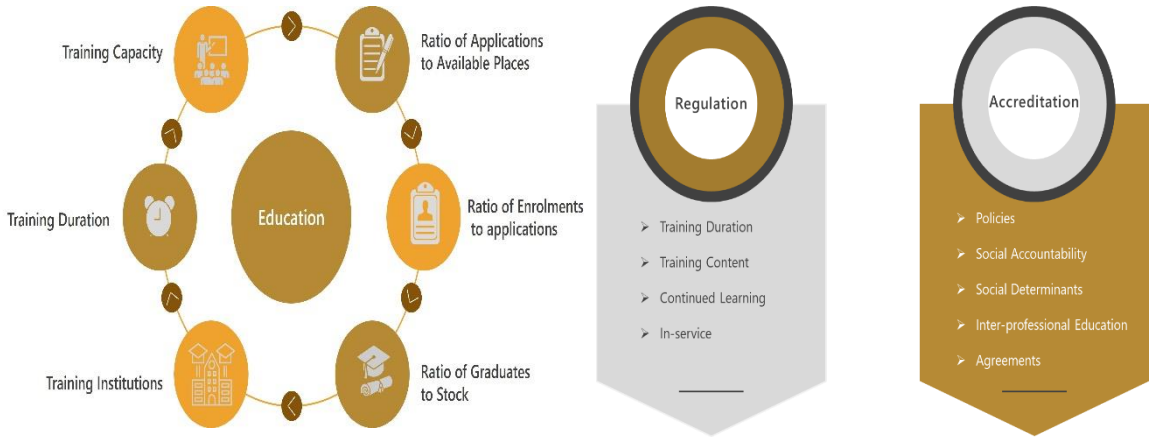

Figure 8 - Module 2 Key Areas

Kindly Note - We have not received data for the majority of the indicators of this module. Details are present in section: 17.2 Past Recommendations for existing No/Partly Capability Indicators

13.2 Indicator Data

Indicator Id	2.05
Name	Duration of education and training
Definition	Duration of health workforce education and training is the number of years required to complete a full curriculum for each health workforce education and training programme.
Value	**Present in below table for 2021 and 2022**
Unit	**Years**
Level	UAE
Data Source	Ministry of Education (MOE)

Related Facts	• In UAE, **Academic period** for higher education starts in **September** and ends in **June** of a particular year.
	• There are a total **4 Academic Calendar** periods in UAE:
	  - Fall (Start of Academic Year) : Aug/Sep to Jan
	  - Summer (Part of Fall – 2 months approximately)
	  - Winter (Interim)
	  - Spring (Feb to June)
	• Major semesters occur during Fall and Spring period.
	• **Administrative data** (such as Applications, Admissions, Enrollments etc.) and **Financial data** (such as Overall education expenditure, teacher salaries, student fees etc.) are collected by the **Ministry of Education (MOE)** from all their licensed universities in below periods;
	  - Fall Collection (Inclusive of Summer data)
	  - Spring Collection (Inclusive of winter data)
	• **Higher Education - Applications/Admissions/Enrollments** data is collected in Fall (Oct - Nov) wherein universities are given an ultimatum of one month duration to submit their data to MOE.
	• **Higher Education - Graduates** data is collected twice a year wherein data of previous year is published in current year.

Category	Diploma (years)	Bachelors (years)	Masters (years)	Doctorate (years)
General Practitioners	NA	**5**	NA	NA
Specialist Practitioners	NA	NA	**2**	**3**
Dentist	NA	**5**	**3**	NA
Pharmacist	**2**	**4**	**2**	NA
Nursing Professional	NA	**4**	**1.5**	NA

Table 8 - Higher Education Course Training Duration

Indicator Id	**2.06**	
Name	Accreditation mechanisms for education and training institutions and their programmes	
Possible Values	Yes/No/Partly	
Definition	The following questions help determine the existence of national and/or subnational mechanisms for accreditation of health workforce education and training institutions and their programmes	
	Supporting Question	**Answer (2021)** **(2022)**
	Have national and/or subnational mechanisms for accreditation of health workforce education and training institutions and their programmes been established?	**Yes** **Yes**
	Are national and/or subnational mechanisms for accreditation of health workforce education and training institutions and their programmes compulsory?	**Yes** **Yes**
	Are there national and/or subnational mechanisms for accreditation of health workforce education and training institutions and their programmes that are not compulsory?	**Partly** **Partly**
	If established, do national and/or subnational mechanisms for accreditation of health workforce education and training institutions and their programmes take into account national education plans for the health workforce?	**Yes** **Yes**
Value	**Partly (2021)**	**Partly (2022)**
Level	UAE	
Data Source	Commission for Academic Accreditation (CAA)	

Indicator Id	2.07
Name	Standards for education and training programmes
Possible Values	Yes/No/Partly
Definition	The following questions help determine the existence of standards for education and training programmes

Supporting Question	Answer (2021)	Answer (2022)
Is there an existence of national and/or subnational standards for social accountability in accreditation mechanisms of training?	Yes	Yes
Is there an existence of national and/or subnational standards for the social determinants of health in accreditation mechanisms of training programmes?	Yes	Yes
Is there an existence of national and/or subnational standards for interprofessional education in accreditation mechanisms	Partly	Partly
Is there an existence of cooperation between health workforce education and training institutions and regulatory bodies to agree on accreditation standards?	Yes	Yes
Is there an existence of national systems for continuing professional development?	Partly	Partly
Is there an existence of in-service training as an element of national education plans for the health workforce?	Yes	Yes
Is there an Existence of national and/or subnational standards for CHW curriculum?	Yes	Yes

Value	**Partly (2021)**	**Partly (2022)**
Level	UAE	
Data Source	Commission for Academic Accreditation (CAA) , Training and Development Center (TDC)	

13.3 Auxiliary Information

13.3.1 Education and Training - Data (2021)

- **EDUCATION INPUTS**
  13565 - Enrolments made in the MOE licensed higher health education and training institutions.
  1503 - Educators in the MOE licensed higher health education and training institutions.

- **EDUCATION OUTPUTS**
  1848 - Graduates from MOE licensed higher health education and training institutions.

13.3.2 Education and Training – Data (2022)

- **INPUTS**
  12861 - Enrolments made in the MOE licensed higher health education and training institutions.
  1641 - Educators in the MOE licensed higher health education and training institutions.

- **EDUCATION OUTPUTS**
  2046 - Graduates from MOE licensed higher health education and training institutions.

Note – 1. Educators data applicable across all Health Sciences courses.
2. Enrolments and Graduates limited to Health Sciences - General Practitioner, Specialist Practitioner, Nursing, Dentist and Pharmacist.

13.4 Module Summary

13.4.1 Education & Training – Key Facts (2021 , 2022)

- **Enrollments:** Around **13,000+ students** across Medical Doctor, Nursing, Dentistry and Pharmacy specialties.
- **Female Performance:** **>75%** of successful **enrolments** and **graduates** in Higher Health Sciences courses, out of which **>30% graduates** from **Pharmacy (2021)** and **>30% graduates** from **Nursing (2022)** specialty.
- **Sector Distribution:** **>90%** of **Students** have graduated from **Private Higher Health Education** Institutions.
- **Master List:** Available of accredited **Higher Health Education Institutions** licensed by **Ministry of Education (MOE).**
- **Training Duration:** Well-defined and regulated at Diploma, Bachelors, Masters and Doctorate levels as applicable.

Table 9 - Module 2 Summary

14. CHAPTER 6: MODULE 3 – FINANCE AND EXPENDITURE

Overview: This module has data which quantifies public/private expenditure towards health workforce education and training across higher education. The benefit of this data includes below key areas:

- Provides details on health workforce development costs
- Distribution of budget in education, skills and job creation

This module also focuses on public/private expenditure on health workforce compensation along with entry level remunerations earned by them. The benefit of this data includes below key areas:

- Emphasis on monitoring Gender Pay Gap
- Economic analysis on flow of funds in health workforce
- Crucial information for budget allocation with government entities

Kindly Note - We have not received data for the majority of the indicators of this module. Details are present in section: 17.2 Past Recommendations for existing No/Partly Capability Indicators

14.1 Key Areas

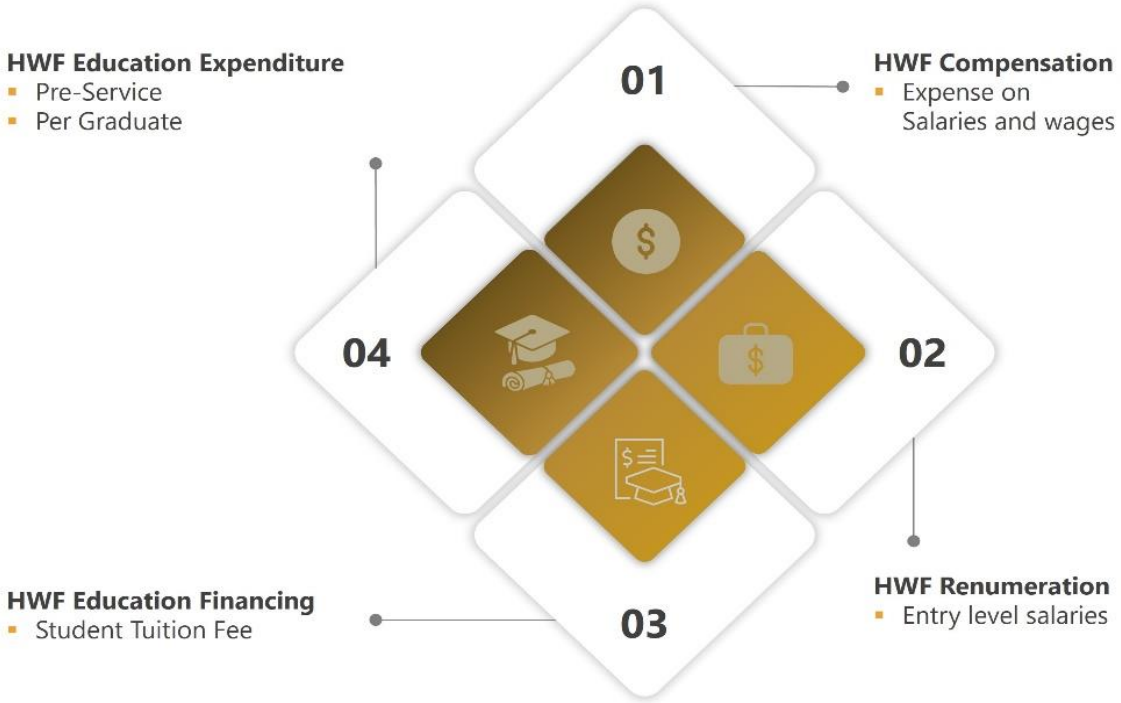

Figure 9 - Module 3 Key Areas

14.2 Module Summary

14.2.1 Finance and Expenditure - Key Facts (2021,2022)

- **Higher Education Expenditure :** Heavy investment of around **9 billion (2021)** and **11 billion (2022)** respectively by UAE Government which facilitate provision of quality education services and enhance a knowledge-based economy.

- **Health Workforce Compensation Expenditures :** Heavy Investments of made across EHS, MOPA and DHA entities which ensure that health workers are fairly compensated and remunerated for their services.

Table 10 - Module 3 Summary

15. CHAPTER 7: MODULE 4 – WORKING CONDITIONS, GOVERNANCE AND LEADERSHIP

Overview: This module highlights regulations affecting working conditions and employment practices. The benefits of regulations data acquired in this module includes below key areas:

- Progressive review of causal and descriptive labour market analyses
- Policies promoting work-life balance
- Provides inputs towards respectful working conditions
- Stresses upon health provider and facility safety based on prevention measures for health care worker and system attacks

This module also focuses on governance and policies for effective management of health workforce planning. The governance indicators reveal a country's ability to able to coordinate an inter-sectoral health workforce agenda and possession of central HWF unit.
The policies indicators provide information on whether the country possesses health workforce planning process. The benefit of this data includes below key areas:

- Demonstrates effective use and application of information collected from other modules
- Confirms alignment of national education plans with national health plans

This module also defines indicators on the status of human resource for health information systems (HRHIS) systems for checking their reporting abilities against key regulations like IHR, WHO Code of Practise etc. and tracking of data pertaining to labour market areas. The benefits of data acquired in this module includes below key areas:

- Ascertains readiness of HRHIS for meeting international reporting requirements on health workforce
- Tracking of entry, stock and exit of resources from labour market
- Production of geocoded facility location data

15.1 Key Areas

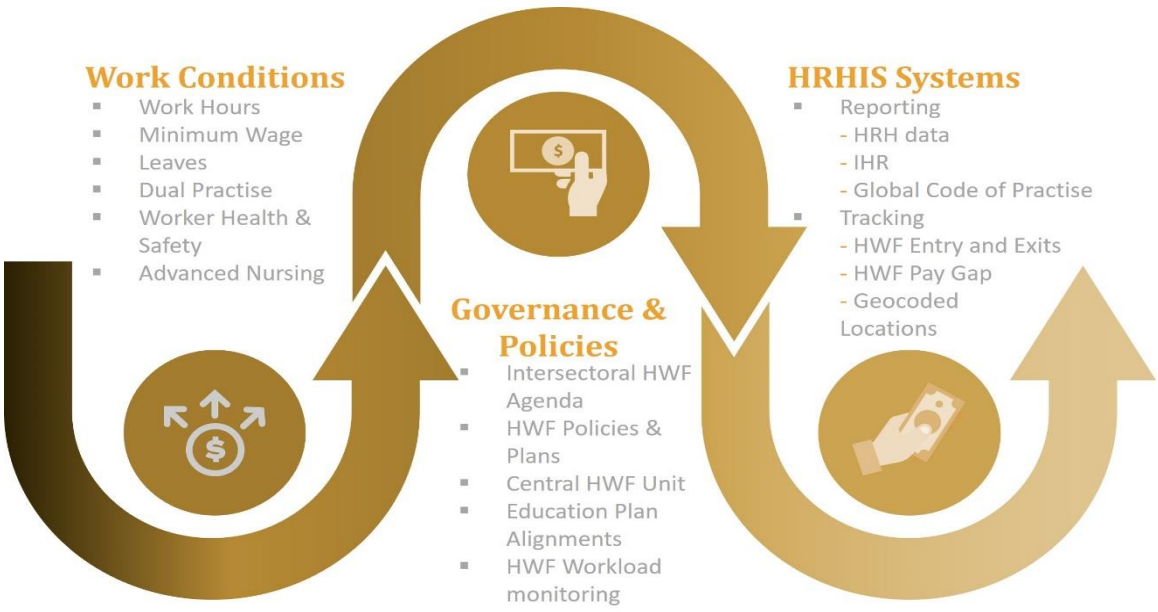

Figure 10 - Module 4 Key Areas

15.2 Indicator Data

Indicator Id	4.01
Name	Labour regulations and policies for health workforce
Possible Values	Yes/No/Partly
Definition	The following questions help determine the existence of labour regulations and policies on the employment characteristics, protection and working conditions of the health workforce

Supporting Question	Answer (2021)	Answer (2022)
Is there an existence of national/subnational policies/laws regulating working hours and conditions?	Yes	Yes
Is there an existence of national/subnational policies/laws regulating minimum wage?	Partly	Partly
Is there an existence of national/subnational policies/laws regulating social protection?	Partly	Partly
Is there an existence of national/subnational policies/laws regulating dual practice?	Partly	Partly
Is there an existence of national/subnational policies/laws for prevention of attacks on health workers?	Yes	Yes
Is there an existence of national/subnational care packages for mental wellbeing of health workers?	Partly	Partly
Is there an existence of mechanisms for in-kind renumeration to promote rural retention?	Yes	Yes
Is there an existence of regulatory mechanisms for promoting health worker safety?	Partly	Partly
Is there an existence of regulatory mechanisms to ensure oversight of the activities of health workers within the private sector?	Yes	Yes
Is there an existence of existence of remuneration of CHW through salary?	NA	NA
Is there an existence of advanced nursing roles?	Yes	Yes

Value	**Partly (2021)**	**Partly (2022)**
Level	UAE	
Comments	Community Health Workers (CHW) are rare in the UAE as Individuals can majorly work in the Health Sector only after acquiring the official Federal (MOHAP) or Emirate specific Licenses to practice in a particular healthcare field.	
Recommendations	17.3.1 Recommendation for Regulation on mental wellbeing of health workers 17.3.2 Recommendation for Regulation for health worker safety promotion	

Data Sources	Dubai Health Authority (DHA) Department of Health – Abu Dhabi (DOH) Federal Authority for Government Human Resources (FAHR) Emirates Health Services (EHS) Ministry of Human Resources & Emiratisation (MOHRE)

Indicator Id	**4.02**
Name	Health workforce governance and leadership capacity
Possible Values	Yes/No/Partly
Definition	The following questions help determine the existence of health workforce governance and leadership capacity in national and/or subnational levels

Supporting Question	**Answer (2021)**	**(2022)**
Is there an existence of institutional mechanisms or bodies to coordinate an intersectoral health workforce agenda?	**Yes**	**Yes**
Is there an existence of a health workforce unit in the Ministry of Health responsible for developing and monitoring policies and plans on health workforce?	**Yes**	**Yes**
Is there an existence of mechanisms and models for health workforce planning?	**Yes**	**Yes**
Is there an existence of national education plans for the health workforce, aligned with the national health plan and the national health workforce strategy/plan?	**Yes**	**Yes**
Is there an existence of institutional models for assessing and monitoring staffing needs for health service delivery?	**Yes**	**Yes**

Value	**Yes (2021)**	**Yes (2022)**
Level	UAE	
Data Source	Ministry of Human and Prevention (MOHAP)	

Indicator Id	4.03
Name	Share of women in leadership role
Definition	Share of women in senior management positions in the Ministry of Health
Numerator	Number of women in leadership roles in the Ministry of Health, defined in headcounts
Denominator	Total number of men and women in leadership roles in the Ministry of Health, defined in headcounts
Value	**Not Reported (2021)** **45 (2022)**
Unit	**Percent**
Level	UAE
Data Sources	Dubai Health Authority (DHA) Department of Health – Abu Dhabi (DOH) Ministry of Human and Prevention (MOHAP) Ministry of Presidential Affairs (MOPA) Emirates Health Services (EHS)

Indicator Id	4.04	
Name	Availability of human resources to implement International Health Regulation core capacity requirements	
Possible Values	None/ Limited/ Developed/ Demonstrated/ Sustainable Capacity	
Definition	This indicator is measured (or supported) by the following (capability) items:	
	Capability Item	**Capability Value**
	No multidisciplinary human resource capacity available to implement IHR core capacities	No capacity
	Multidisciplinary human resource capacity (epidemiologists, veterinarians, clinicians and laboratory specialists or technicians) available at national level	Limited capacity
	Multidisciplinary human resource capacity available at national developed capacity and intermediate level	Developed capacity
	Multidisciplinary human resource capacity available as required at relevant levels of public health system (e.g. epidemiologist at national and intermediate level and assistant epidemiologist (or short course trained epidemiologist) at local level available)	Demonstrated capacity
	Capacity to send and receive multidisciplinary personnel within country (shifting resources) and internationally	Sustainable capacity
Value	**Sustainable capacity (2021)**	**Sustainable capacity (2022)**
Level	UAE Public Sector	
Data Source	Ministry of Health and Prevention (MOHAP)	

Indicator Id	4.05
Name	National capacity to monitor key metrics for health workforce planning and global monitoring frameworks
Possible Values	Yes/No/Partly
Definition	The following questions help determine the capacity of national human resources for health information systems (HRHIS) to monitor key metrics relevant for national health workforce planning and policy- making and for global monitoring frameworks

Supporting Question	Answer (2021)	Answer (2022)
Is there an ability of HIS to report on HRH data?	Yes	Yes
Is there an ability of HRHIS (or other mechanism) to generate information to report on health workforce metrics for International Health Regulations?	No	No
Is there an ability of HRHIS (or other mechanism) to generate information to report on implementation of the WHO Global Code of Practice on the International Recruitment of Health Personnel?	Partly	Partly
Is there an ability of HRHIS to generate information for reporting on outputs from education and training institutions?	No	No
Is there an ability of HRHIS to generate information to track entrants to the labour market?	Yes	Yes
Is there an ability of HRHIS to generate information to track active stock on the labour market?	Yes	Yes
Is there an ability of HRHIS to generate information to track exits from the labour market?	Yes	Yes
Is there an ability of HRHIS to generate geocoded information on the location of health facilities?	Partly	Partly
Is there an ability of HRHIS to monitor gender pay gap?	Yes	Yes

Value	**Partly (2021)**	**Partly (2022)**
Level	UAE	
Data Source	Commission for Academic Accreditation (CAA)	

15.3 Module Summary

15.3.1 Working Conditions, Governance and Leadership (2021,2022)

- **Working Conditions**

  Well defined and **gender-neutral** existing in UAE for below areas;

  - **Working hours** inclusive of Night shifts, Overtime and Holiday work. **[Public and Private Sectors]**
  - **Social protection** in terms of leaves due to maternity, childcare, sick family members, bereavement, training (In-Service and CPD). **[Public Sector , Private Sector - Partly]**
  - **Minimum Wage** and **Dual Practise**. **[Public Sector Only]**
  - Health Workforce **Safety** - Protection and Elimination of Violence. **[Public and Private Sectors]**
  - Mental Health wellbeing of health workforce (**Public** and **Private Sectors** – **Partly**)
  - Private Sector health workforce activities.

- **Health Workforce Governance**
  - Co-ordinated inter-sectoral health workforce agenda cutting across federal and private regulatory entities.
  - Central Health Workforce Unit in the Ministry of Health.

- **Health Workforce Planning**
  - Well defined objectives, inter-sectoral stakeholders and committees involved in the health workforce planning processes.
  - Alignment of National Education Plan with the National Health Workforce Plan.
  - Structure in place for monitoring quantity and workload of health workers.

- **Health Workforce Leadership**
  - **45%** Share of Women in Leadership roles across Federal and Emirate-level health regulation entities. **(2022)**

- **Health Workforce Systems**
  - **Health Worker Reporting**

    a) Only Health Worker Stock data from Bayanati (HRHIS) is used for **WHO Code of Practise** reporting on migrant worker recruitment.

    b) Bayanati system does not track data pertaining to **outputs from Health Education & Training institutes.**

    c) **HIS systems** have ability to report on **Human Resource for Health** data.
  - **Health Worker Tracking**

    a) Bayanati system has data for tracking **Health Worker Entries**, **Stock**, **Exits** and **Gender Pay Gap** from Federal Health Labor Market.

    b) MOHAP Licensing system contains the geocoded facility locations of some of the workforce **Geocoded facility locations**.

Table 11 - Module 4 Summary

16. CHAPTER 8: NHWA INTERNATIONAL COMPARISONS

16.1 Overview

Key NHWA health workforce indicators are presented here pertaining to **Gender Distribution** and **Category-wise** health worker density per 10 000 population.
UAE's performance in these Indicators against selected chief countries are presented below to ascertain global health workforce comparability.
Note: All the indicator data present in this chapter are obtained from (WHOs - Global Health Workforce Statistics) and latest year values as available have been utilized.

16.2 Gender Distribution Indicator

We are measuring gender distribution based on difference between percentage of male workforce and percentage of female workforce.

16.2.1 Medical Doctor

As per below mentioned countries, the gap in Medical Doctors workforce between men and women is highest in **USA** with **30.4%** and lowest in **Germany** with gap of **3.8%.** The gender gap in **UAE** is at a slightly high value of **12.14%**.

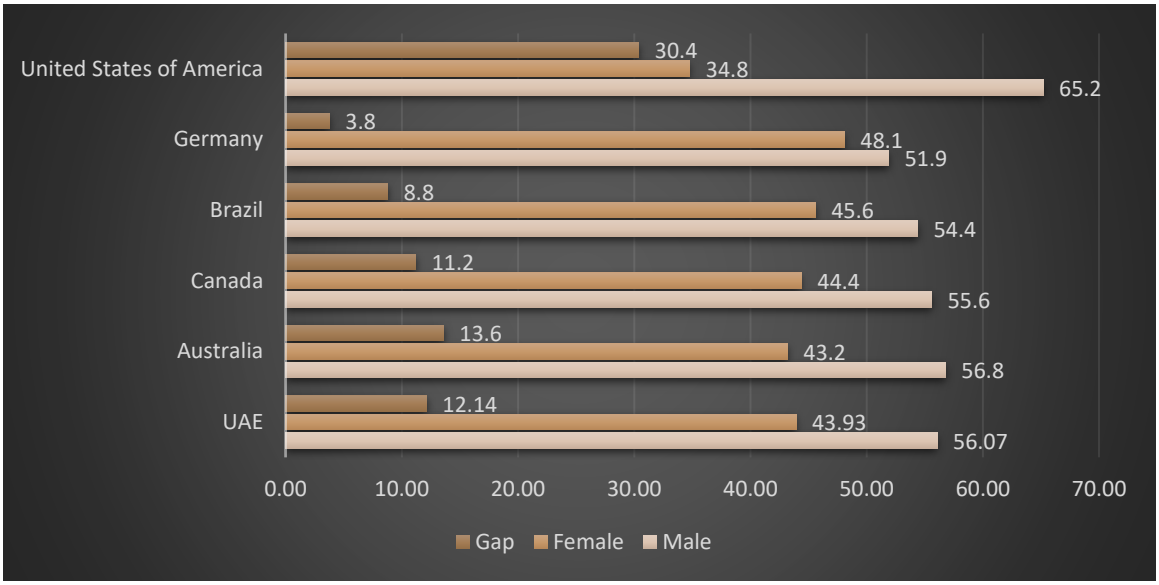

Figure 11 - Medical Doctor - Global Gender Comparison

16.2.2 Nursing

As per below mentioned countries, the gap in Nursing workforce between men and women is highest in **Canada** with **-81.2%** and lowest in **Germany** with gap of **31.6%**. The gender gap in **UAE** is at a slightly high value of **-59.45%**.

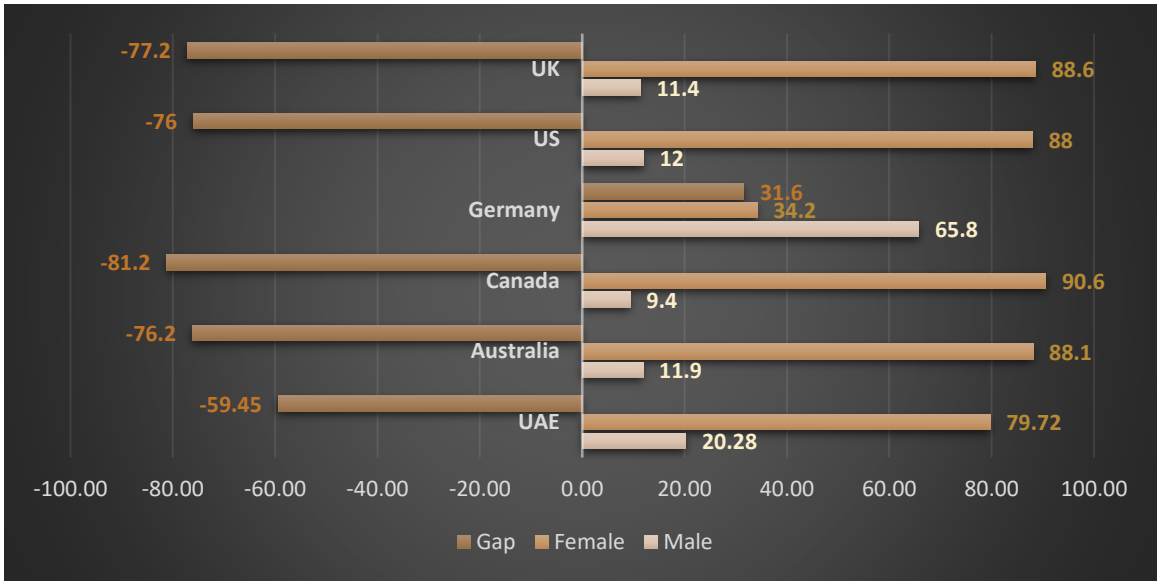

Figure 12 - Nurses - Global Gender Comparison

16.3 Category-wise Health Worker Density indicator

16.3.1 Medical Doctor per 10 000 population

As per below mentioned countries, **highest** Medical Doctor density per 10 000 population is in **Norway** with **51.68**. In the **UAE** this figure is at **32.2**.

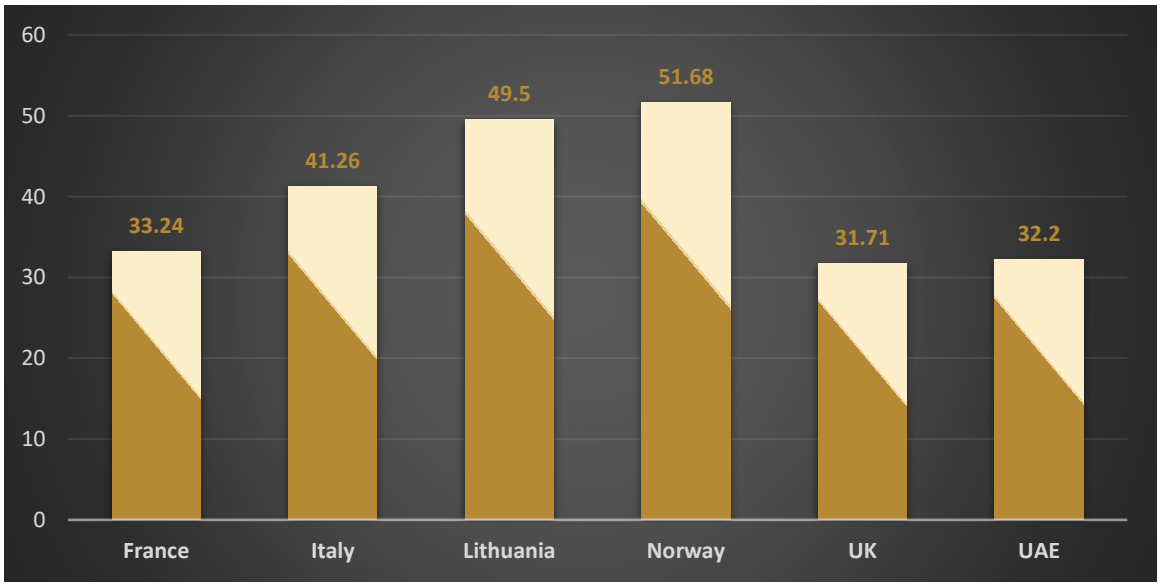

Figure 13 - Global Medical Doctor densities

16.3.2 Nurses and Midwifery per 10 000 population

As per below mentioned countries, highest Nurse and Midwife density per 10 000 population is in Belgium with 205.3. In the UAE this figure is 68.3.

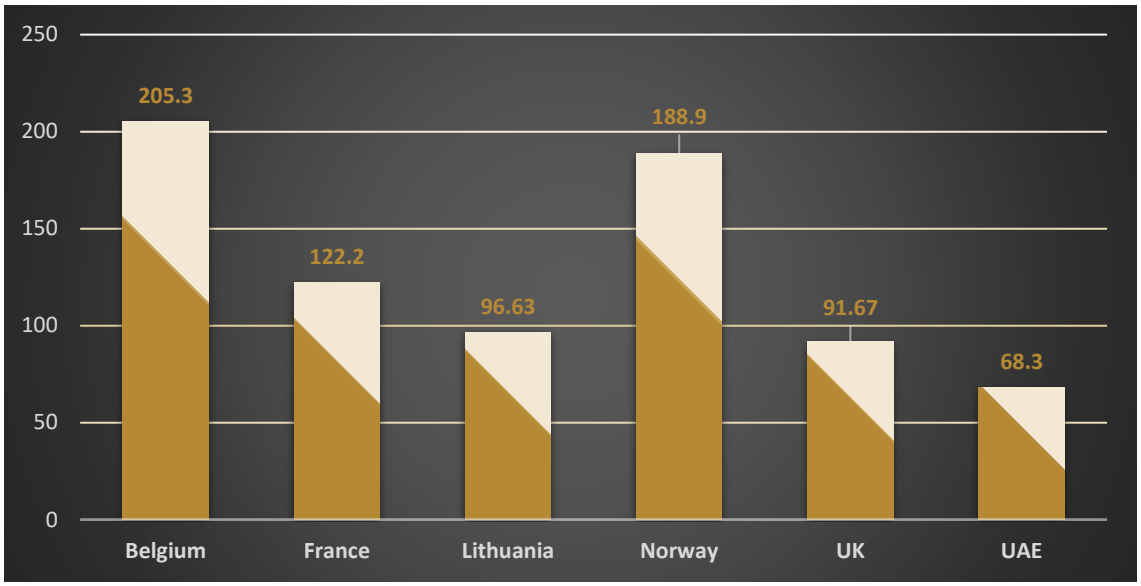

Figure 14 - Global Nurse and Midwife Density

16.3.3 Dentists per 10 000 population

As per below mentioned countries, **highest** Dentists density per 10 000 population is in **Belgium** with **11.33**. In the **UAE** this figure is at **9.1**.

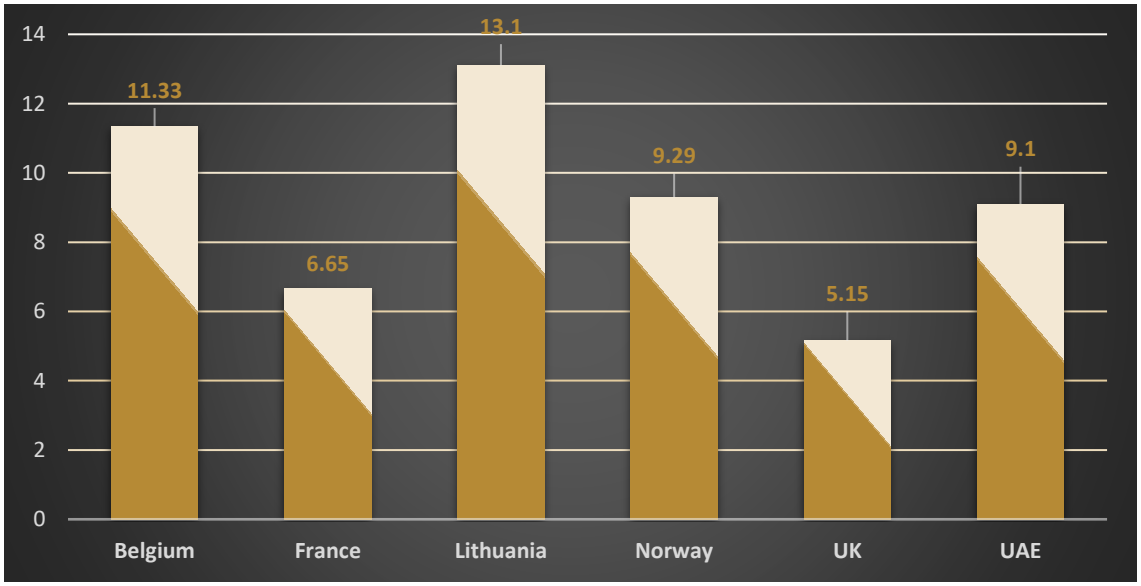

Figure 15 - Global Dentists Density

16.3.4 Pharmacists per 10 000 population

As per below mentioned countries, **highest** Pharmacist density per 10 000 population is in **Belgium** with **20.27**. In the **UAE** this figure is **15**.

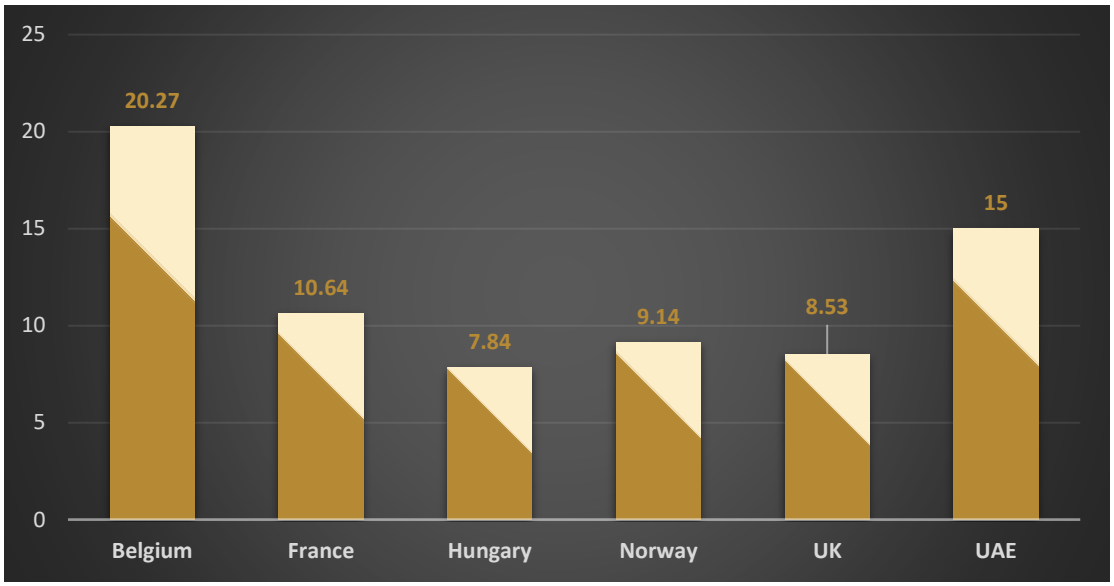

Figure 16 - Global Pharmacist Density

17. CHAPTER 9: MOHAP RECOMMENDATIONS

Overview

The NHWA modules have certain indicators which are qualitative in nature and are used to assess the capabilities of a country's health workforce policies and regulations in improving the state of the health workforce. In the above-mentioned chapters pertaining to individual NHWA Modules, certain indicators are in the form of questions which have possible responses as Yes, No or Partly.

For those indicators wherein identified stakeholders have provided responses as No or Partly, We at MOHAP have analyzed those responses and are providing recommendations towards those questions whereby 100% indicator compliance can be achieved in UAE.

17.1 Capability Indicator Status

#	Module	Total	Yes	No	Partly
1	Stock and Flow	0	0	0	0
2	Education	2	0	0	2
3	Finance and Expenditure	0	0	0	0
4	Working conditions, governance, and leadership	3	1	0	2

Table 12 - Capability Indicator Status

17.2 Past Recommendations for existing No/Partly Capability Indicators

Since the inception of the NHWA UAE Report in the year 2018, till date , there are certain quality indicators which are still not completely implemented and thus our recommendations for implementing them remain intact. Accordingly, we request you to kindly go through the previous NHWA reports (2019-2020, Section 23.2) to learn in-depth about these recommendations. Below mentioned are crisp summaries of the incomplete policy indicators, issues engulfing them and associated recommendations.

Policy Indicator	Issue	Recommendation
Accreditation of non-compulsory education and training institutions	The accreditation procedures for Free zones based Healthcare Education Institutions are not fully implemented.	To mandate thorough implementation of the established accreditation standards for Free-Zones based higher education institutions in the UAE.
Standards for interprofessional education (IPE)	IPE training in UAE is encouraged but not mandatory.	To mandate IPE implementation in the Accreditation process of licensed health education universities by checking their measures undertaken for IPE implementation such as IPE Mission & Vision definition, IPE Commitment, IPE Staff Selection, IPE Curriculum, IPE Organization Support and IPE Training Merger.
Continuing Professional Development (CPD)	CPD standards for health workforce education are not integrated with national education plan.	To establish a standard structure for CPD integrated with the National Education Plan for ensuring complete training and development of every individual healthcare worker along with certification for essential re-licensure.
Regulation on Minimum Wage	There is no provision for Minimum Wage in the UAE private sector despite worker salaries being highly competitive and negotiable, in addition to being simultaneously considerate of employees' basic needs. A New UAE Labor law was to be introduced for minimum wage for private sector employees applicable for Feb 2022 however it is still not implemented.	The minimum wage is to be determined and announced by the UAE Cabinet in line with the proposed law , as per MOHRE.

Regulation on Dual Practise	Dual Practise is majorly regulated in public sector however not regulated in private sector.	To devise laws in the UAE private sector, which facilitate flexible and ethical functioning of workers in private on private or private on public (Dual Practise) settings.
HRHIS for reporting on International Health Regulations	The system for IHR reporting involves manually entered form-based reports that are emailed to WHO.	To upgrade current email reporting system to an integrated electronic platform (HRHIS) system encompassing national and local levels epidemiological data, as well as human and animal health sectors.
HRHIS for WHO Code of Practice reporting	From the HRHIS (Bayanati) and other licensing systems, only Worker Stock data is being submitted for WHO Code of Practise reporting and not Country of Training data.	To capture Country of Training data in the Bayanati (HRHIS) system and accordingly leverage it for WHO Global Code of Practise reporting.
HRHIS for reporting on outputs from education and training institutions	The Bayanati HRHIS System only contains the educational qualification details of the employees and not the education outputs such as Graduates list, Enrollments list etc. The MOHAP - Licensing system as well does not contain the educational output details of the employees.	To enable MOHAP – Licensing system to have access to such data upon completion of Enterprise Data Warehouse (EDW) solution. This solution will integrate with the Ministry of Education systems and Licensing System for obtaining this data.
HRHIS for producing the geocoded location of health facilities	The geocoded health facilities location data is not captured in Bayanati System. Currently MOHAP-Licensing system has geocoded facility URL links for some of the health worker staff.	To upgrade the MOHAP – Licensing system to store the geocoded locations of all the facilities associated with each staff.

Table 13 - Past Recommendations for No/Partly Capability Indicators

17.3 MOHAP – Recommendations for new NHWA Policy Indicators

17.3.1 Recommendation for Regulation on mental wellbeing of health workers

Indicator	**Existence of national/subnational care packages for mental wellbeing of health workers**
Question	Is there an existence of national/subnational care packages for mental wellbeing of health workers?
Owner	Federal and Local Health Regulation Entities
Overview	▪ **Care Packages** for **mental wellbeing** of health workers typically include **items** such as brochures, pamphlets, online materials or products that encourage self-care, aid in stress management, educate on mental health conditions, promote work-life balance and improve overall well-being. ▪ The **benefits** of providing such packages to employees include improvement in job satisfaction, engagement and motivation, increase in productivity, improved teamwork, decreased turnover rates and absenteeism, reduced employee burnout etc. ▪ Examples of **provisions/regulations** which talk about mental health of workers are illustrated below; ❖ In **Abu Dhabi**, there are guidelines present in the **Abu Dhabi Occupational Safety and Health Center and Health System Framework (OSHAD-SF)** which address employee wellness, health promotion and management of work-related stress. ❖ In certain **Northern Emirates** facilities, **Emirates Health Services (EHS)** conduct physical Staff Wellbeing programs as well as online Wellbeing Awareness programs for their employees. ❖ In the **Private sector**, all workers are protected by the **Federal Law 33 (2021)** which mandates Employers to take full responsibility of protecting workers from the risks of occupational diseases and injuries but not explicitly on mental health. ❖ Moreover, Certain **health facilities** provide health insurance packages that cover certain mental health support services and offer anonymous counselling services. ▪ However, there are certain health regulation entities that do not have explicit regulations related to mental health or mental health related care packages.
Recommendation: Explicit **regulations/policies** need to be formulated and implemented by all **UAE healthcare regulation entities** which define what to include in **Mental Health Care Packages** and mandate the dissemination of these packages to health workers.	

17.3.2 Recommendation for Regulation for health worker safety promotion

Indicator	Existence of regulatory mechanisms for promoting health worker safety?
Question	Is there an existence of regulatory mechanisms for promoting health worker safety?
Owner	Federal and Local Health Regulation Entities
Overview	▪ **Health Worker safety**, both **occupational** and **health**, advocates their right to **Decent Working** conditions and ultimately results in a resilient health system. ▪ The promotion of health worker safety instills confidence in the workers that their organization is committed towards and genuinely interested in their mental, physical and occupational safety. ▪ The promoted safety measures once implemented essentially lead to worker protection from potential hazards, reduces absenteeism, enhances worker efficiency, increases work participation, reduces social alienation and tremendously improves their overall productivity. ▪ Examples of **provisions/regulations** which talk about promotion of health worker safety are illustrated below; ❖ In **Abu Dhabi**, there are guidelines present in the **Abu Dhabi Occupational Safety and Health Center and Health System Framework (OSHAD-SF)** which describe in detail the management of Occupational & Health Safety in workplaces, inclusive of the Health Sector. ❖ In certain **Northern Emirates** facilities, **Emirates Health Services (EHS)** follow an accreditation requirement as per Joint Commission International (JCI) standards about Occupational health and safety. ❖ In the **Private sector**, there exists **Administrative Decision No. 28** of **2022** concerning **occupational health and safety and labor accommodations**. It defines the Employers' obligation to maintain a register of Occupational Health and Safety and related activities. This register is to be made available for inspection by a concerned authority at any given time. Article 5 of the same decision details the Employers' obligations regarding the provision of Personal Protective Equipment (PPE) at no cost to the workers and adequate to the conditions of the assigned task. ❖ However, there are certain health regulation entities that do not have explicit regulations towards the promotion of health worker safety.
Recommendation: Explicit **regulations/policies** need to be formulated and implemented by all **UAE healthcare regulation entities** which promote the Occupation and Health Safety of their health workforce.	

18. CHAPTER 10: CHALLENGES

18.1 General Challenges

The National Health Workforce Account (NHWA) was formulated to meet the below mentioned global health workforce challenges faced by countries:

- Shortage of national health workforce
- Provision of high-quality education and training that supports the needs of health systems
- Equitable deployment of health workers to match populations' needs
- Performance monitoring to ensure high-quality care nationwide
- Health workforce promotion and job retention

The NHWA programme can aid countries to address or reconsider major policy questions related to current HWF challenges and optimizing planning systems such as:

- Is the current health workforce stock sufficient, skilled and accessible for providing quality services thereby resulting in satisfaction of population needs?
- Are the identified gaps in health workforce situation addressable through optimal resource allocation, formulation of effective policies, bolstering of public and private sector partnerships and making sound investments in education and workforce production?
- What is the financial feasibility in terms of fiscal investment (salaries) and inter-sectoral negotiations for implementing policies that improve health workforce performance?
- Can the health workers entry into the labour market counterbalance the exits?
- Can financial incentives attract health workers in underserved areas and aid in job retention and balanced geographical distribution?

18.2 Challenges in NHWA Data Collection

The biggest challenge in the accurate data collection for all NHWA Modules in the UAE was that data is scattered across 7 emirates, multiple regulatory ministries and the private sector. For each NHWA module, identification of the correct stakeholder for the respective data was the key step that was taken during a NHWA Orientation workshop which included designated individuals from each Ministry in the UAE.

Over time, several identified stakeholders were replaced with new stakeholder focal points based on revised clarity attained on data ownership. Despite all these undertaken activities, several indicator data was not successfully obtained due to unavailability with the respective stakeholder.

18.2.1 Past Challenges

Since the inception of the NHWA UAE Report in year 2018, till date , the challenges of obtaining below mentioned NHWA data items have continued to prevail. Thus, we are summarizing these challenges in the table below and earnestly request you to kindly go through the previous NHWA reports (2019-2020, Section 24.2) for learning in depth about these challenges.

Table 14 - NHWA Challenges Summary

NHWA Indicator	Challenge	Action
Health worker distribution by place of training	Majority of the contacted stakeholders responded with partial or complete unavailability of such kind of Training data of their health workers.	We requested the concerned entities to mandatorily start tracking desired Training data for existing employees and make this data a licensing requirement for new employee onboarding process.
Annual inflows of health workers **Annual outflows of health workers**	The majority of the contacted stakeholders responded with partial or complete unavailability of Historical Work History data of their health workers. They also typically track Health Worker licenses which have been cancelled or blocked or de-activated or suspended etc. and not the resignations. Emirates-ID is typically not captured for health workers licensed for the first time in the UAE and on account of data sensitivity is shared with utmost caution.	We requested the concerned entities to mandatorily start tracking the health worker prior work history , resignation details in addition to their licensing status and the Emirates-ID even during first time licensure.
Health worker distribution by type of contract	Majority of contacted stakeholders do not have this data readily available.	We requested the concerned Public and Private healthcare entities to mandatorily track Part-Time health workers working across multiple facilities internal or external to those entities.
Vacancy rate	From private sector, MOHRE has a Tasheel system which contains all job work permits however is not integrated with the Tawteen system. Due to which Filling of vacancies data is not captured. From public sector, not all of the healthcare entities possess the complete healthcare job vacancies data.	We requested the concerned Public and Private healthcare entities to mandatorily start tracking the job vacancies and end of year filling status of the same.
Health workforce education and training capacity **Ratio of applications to education and training capacity** **Ratio of enrolments to applications**	We have received numerator values for these indicators however denominator values of Education Places have not been received. Also, Enrolments data is for 5 specialties however Applications data is across all healthcare specialties.	We have provided a comprehensive pending data items file in relation to these indicators to the Ministry of Education and are awaiting their response.

Total expenditure on health workforce pre-service education (current and capital) **Expenditure per graduate on health workforce education** **Average tuition fee per student**	Ministry of Education has shared with us Total Expenditure on Higher Education across all specializations however expense data specific to Higher Health Education, Graduates, Tuition Fee and Educators has not been shared due to unavailability.	Same as above.

19. Glossary

Source: WHO - (National Health Workforce Account - A Handbook)

Table 15 - Glossary

Term	Definition
Accreditation	A process by which an officially approved body, on the basis of assessment of learning outcomes and/ or competences according to different purposes and methods, awards qualifications (certificates, diplomas or titles), or grants equivalences, credit units or exemptions, or issues documents such as portfolios of competences. The term accreditation applies to the evaluation of the quality of an institution or a programme as a whole. ▪ **Accreditation mechanisms:** Mechanisms and procedures for implementation of an accreditation process. ▪ **Accreditation standards:** Standards that guide health workforce education programme development and evaluation, facilitate diagnosis of strengths and weaknesses relating to the education programme, and stimulate quality improvement. ▪ **Accreditation systems:** A system that is: based on standards; supported by a legislative or legal instrument; independent; transparent; non-profitmaking; accountable; representative of, but independent from all major stakeholders; and efficiently administered.
Active health worker	One who provides services to patients and communities (practising health worker) or whose medical education is a prerequisite for the execution of the job (e.g. education, research, public administration) even if the health worker is not directly providing services (professionally active health worker). If data are not available for practising or professionally active health workers, data with the closest definition can be used, such as "health worker licensed to practice".
Active health workforce stock	This comprises of the size, composition and distribution of health workforce within a country.
Admissions	The number of applications which successfully met the entry criteria of education programmes and are thus offered Admissions for the 1st year of those education programmes.
Advanced practice nurse	A registered or other professional nurse who has acquired the expert knowledge base, complex decision-making skills and clinical competencies for expanded practice, the characteristics of which are shaped by the context and/or country in which the nurse has credentials to practise. A master's degree is recommended for entry level.
Ambulatory care	Institution with Provision of health care services directly to outpatients in daycare or home care settings.
Ancillary Services	Institution with Provision of patient transportation and labs (medical, diagnostic, dental) etc. services.

Term	Definition
Applications	The number of applications which successfully met the entry criteria of those programmes and are thus offered Admissions for the 1st year of education programmes.
Compensation of employees	The total remuneration, in cash or in kind, paid by an enterprise to an employee in return for work performed by the latter during the accounting period. It includes wages, salaries, and all forms of social benefits, payments for overtime or night work, bonuses, allowances, as well as the value of in-kind payments such as the provision of uniforms for medical staff.
Continuing professional development	Training that is beyond clinical update and includes wide-ranging competences like research and scientific writing; multidisciplinary context of patient care; professionalism and ethical practice; communication, leadership, management and behavioral skills; team building; information technology; auditing; and appropriate attitudinal change to ensure improved patient service, research outcomes, and attainment of the highest degree of satisfaction by stakeholders. The form of continuing professional development (CPD) may include: courses and lectures; training days; peer review; clinical audit; reading journals; attending conferences; e-learning activity. CPD may be included in national standards of conduct, performance and ethics that govern health workers. Continuing professional development (mandatory) National systems for continuing CPD may be voluntary or mandatory. Mandatory systems may include the requirement for both verifiable and general and non-verifiable CPD. Verifiable CPD is activity that meets an agreed definition of CPD and for which there is documentary evidence that the health worker has undertaken CPD with concise educational aims and objectives; clear anticipated outcomes; and quality controls.
Domestic trained health worker	A health worker who obtained his/her first qualification in the country where s/he is entitled to practice.
Entrants	New students to the institutions who joined in the starting of the academic year.
Enrolments	The number of students who are actually attending the classes of the education programmes.
Family medicine practitioner	Part of generalist medical practitioners classified in ISCO-08 code 2212. Also referred to as general practitioners and in some countries considered as a specialization, they provide person-centred continuous and comprehensive medical care to individuals and families in their communities. This group does not include resident medical officers, medical interns or other generalist medical practitioners not in general practice activities.
Field epidemiology training programme (FETP)	A health training programme with field investigations to develop experience and specialist skills based on practical application of epidemiological methods. FETP training levels are defined as: ▪ **Basic level:** for local health staff, comprising limited classroom hours interspersed throughout 3–5 months on-the-job field assignments to build capacity to conduct timely outbreak detection, public health response, and public health surveillance.

Term	Definition
	▪ **Intermediate level:** for district/regional epidemiologists, comprising limited classroom hours interspersed throughout 6–9 month on-the-job mentored field assignments to build capacity to conduct outbreak investigations, planned epidemiologic studies, and public health surveillance analyses and evaluations. ▪ **Advanced level:** using a national focus for advanced epidemiologists, it consists of limited classroom hours interspersed throughout 24-month mentored field assignments to build capacity in outbreak investigations, planned epidemiologic studies, public health surveillance analyses and evaluations, scientific communication and evidence-based decision-making for development of effective public health programming.
Foreign-born health worker	A health worker born in a country other than the one in which s/he performs health-related activities.
Foreign-trained health worker	A domestic health worker who obtained his/her qualification (degree) in another country and is entitled to practise in the receiving country.
Government Administration	Institutions responsible for Administration and formulation of government health policies and financing. Eg: Ministry of Health, Local Health regulators.
Graduate	An individual who has successfully completed an education programme, according to the International Standard Classification of Education 2011.
Hospital	Institution with provision of medical, diagnostic and treatment services to Inpatients.
Health information system	The health information system provides the underpinnings for decision-making and has four key functions: (i) data generation, (ii) compilation, (iii) analysis and synthesis, and (iv) communication and use. The health information system collects data from health and other relevant sectors, analyses the data, ensures their overall quality, relevance and timeliness, and converts the data into information for health-related decision-making.
Health workforce education and training institution	An established institution that provides education as its main purpose, such as a school, college, university or training centre. Such institutions are normally accredited or sanctioned by the relevant national education authorities or equivalent to award qualifications. Educational institutions may also be operated by private organizations, such as religious bodies, special interest groups or private educational and training enterprises, both for profit and non-profit.
Health workforce education and training place	A place may be offered, by a health workforce education and training institution, to an applicant who meets the published minimum admission requirements for a particular programme. The number of places denotes the capacity of an education and training institution and its programmes.
Health workforce education and training programme	A "coherent set or sequence of educational activities or communication designed and organized to achieve pre-determined learning objectives or accomplish a specific set of educational tasks over a sustained period" with the objective to improve health knowledge, skills and competencies applied to

Term	Definition
	health and enable the training of new health workers. Health workforce education and training programmes will often have a numerus clauses that restricts the number of places for a given programme.
Health workforce planning	Strategies that address the adequacy of the supply and distribution of the health workforce according to policy objectives and the consequential demand for health labour.
Health Worker Density	Health Worker Density includes the total number of health workers across healthcare specializations such as Medical Doctors, Nurses, Dentists, Pharmacists, Technicians etc. in a given country in terms of 10,000 population.
Higher education	Includes "all types of studies, training or training for research at the post-secondary level, provided by universities or other educational establishments that are approved as institutions of higher education by the competent State authorities".
Human resources for health	All persons engaged in actions whose primary intent is to enhance health (WHO definition). Three categories of workers relevant for health workforce analysis can be distinguished: ▪ Those with health vocational education and training working in the health services industry ▪ Those with training in a non-health field (or with no formal training) working in the health services industry, and ▪ Those with health training who are either working in a non-healthcare related industry, or who are currently unemployed or not active in the labour market
In-service training	Training received while one is employed in the health sector.
International Health Regulations (2005)	An international legal instrument that is binding on 196 countries across the globe, including all Member States of WHO. Its aim is to help the international community prevent and respond to acute public health risks that have the potential to cross borders and threaten people worldwide.
Inter-professional education	When two or more health professionals learn about, from and with each other to enable effective collaboration and improve health outcomes. "Professional" is an all-encompassing term that includes individuals with the knowledge and/or skills to contribute to the physical, mental and social well-being of a community.
Licensure	The granting of a permit (license) or mandatory certification to practise in the appropriate field of health, issued by a legitimate regulatory body within the profession.
Lifelong learning	All general education, vocational education and training, non-formal education and informal learning undertaken throughout life, at all levels and all settings, resulting in an improvement in knowledge, skills and competences, which may include professional ethics.

Term	Definition
Medical doctor or physician: generalist	Generalist medical practitioners (ISCO 2008 code 2211) including family and primary care doctors, who diagnose, treat and prevent illness, disease, injury, and other physical and mental impairments and maintain general health in humans through application of the principles and procedures of modern medicine. They plan, supervise and evaluate the implementation of care and treatment plans by other health-care providers. They do not limit their practice to certain disease categories or methods of treatment, and may assume responsibility for the provision of continuing and comprehensive medical care to individuals, families and communities.
Medical doctor: specialist	Specialist medical doctors (ISCO 2008 code 2212) diagnose, treat and prevent illness, disease, injury and other physical and mental impairments using specialized testing, diagnostic, medical, surgical, physical and psychiatric techniques, through application of the principles and procedures of modern medicine. They plan, supervise and evaluate the implementation of care and treatment plans by other health-care providers. They specialize in certain disease categories, types of patient or methods of treatment, and may conduct medical education and research activities in their chosen areas of specialization.
Newly active health worker	A health worker who starts activity in the given year in the given profession.
Others (Facilities)	Non-clinical institutions such as Police, Private Companies, Airlines, Clubs etc.
Public expenditure	Expenditure from public funds. Public funds are state, regional and local government bodies and social security schemes. Public capital formation includes publicly-financed investment in facilities plus capital transfers to the private sector for construction and equipment.
Re-licensure	Recertifying a health worker as having attained the standards required to practise a particular occupation.
Remuneration	Average gross annual income, earned by employees or those self-employed, i.e. income per year and per person, before any deductions are made for social security contributions or income tax. A person may have more than one qualifying job in any given reference period.
Residential Care	Institution with provision of nursing, supervisory or other care as needed by residents.
Retailers	Institutions selling medical goods to general public. Eg: Pharmacies , Medical Stores.
Skill mix	A broad term that refers to the combination or grouping of different categories of staff in the workforce, or the demarcation of their roles and activities. It is also used to describe the mix of posts, grades or occupations in an organization (as in ''grade mix''). Buchan and O'May offer the following definition in the context of health-care provision: ▪ a combination of skills available at a specific time

Term	Definition
	▪ a mix of posts in a given facility ▪ a mix of employees in a post ▪ a combination of activities that are comprised in each role ▪ differences across occupational groups such as nurses and physicians or between various sectors of the health system, or ▪ a mix within an occupational group such as the different types of nursing providers with different levels of training and different wage rates.
Social accountability	The obligation of an authorized body to direct its education, research, and service activities towards addressing the priority health concerns of the community, region, and/or nation it has a mandate to serve.
Social determinants of health	The conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems.
Specialist surgical workforce	Includes licensed and qualified physician surgeons, anaesthesiologists and obstetricians.
Subnational level	To be defined according to the specific conditions, governing structures, and constitutional provisions existing in a given country. Disaggregation based on administrative boundaries down to the first or second subnational level is recommended (depending on the structure of administrative boundaries and the size of subnational territories), without overlaps between the administrative units. Examples for subnational administrative units are states, regions, provinces, counties, and districts.
Total expenditure on the health workforce	The sum of expenditures on compensation of employees (FP.1): wages and salaries (FP.1.1); social contributions (FP.1.2); all other costs related to employees (FP.1.3); self-employed professional remuneration (FP.2). Expenditure on mandatory continuing professional development should be included within social contributions.
Total public expenditure on health workforce education	Current and capital expenditure expressed as a percentage of gross national income (or gross national product) in a given financial year. This indicator shows the proportion of income spent by government authorities on health workforce education over a given financial year. This can also be calculated based on gross domestic product.
Transformative (health workforce) education	The sustainable expansion and reform of health workforce education and training to increase the quantity, quality and relevance of health workers, and in so doing strengthen national health systems and improve population health outcomes.
Unemployment	All persons of working age who are qualified for a job, are not in employment, have carried out activities to seek employment during a specified recent period, and are currently available to take up employment given a job opportunity.
Vacancy rate	The proportion of total posts that are vacant according to the definition of the job vacancy, expressed as a percentage of total positions, both filled and

Term	Definition
	unfilled.