

Australian Government

Department of Health, Disability and Ageing

Method Summaries

GP headcount and workload methods

Health Workforce Division
Department of Health, Disability and Ageing

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Table 1 - Definitions, acronyms and abbreviations

Term	Meaning
HeaDS UPP	Heath Demand and Supply Utilisation Patterns Planning
HWD	Health Workforce Division
MBD	Medicare Benefits Division
WDAS	Workforce Data Analysis Section
FTE	Full Time Equivalent
FSE	Full Service Equivalent
MBS	Medicare Benefits Scheme
NHWDS	National Health Workforce Dataset
BTOS	Broad Type of Service categories for reporting MBS activity
PIN	Unique MBS patient identifier
SPR	Service Provider identifier
UID	Unique identifier based on practitioner and prescriber numbers
AFHW	Australia's Future Health Workforce
GP	General Practitioner
GP Catchment	General Practice (GP) catchments divide Australia into 829 non-overlapping geographical regions according to the ASGS 2016 boundaries
ASGS	Australian Statistical Geography Standard
MMM	Monash Modified Model
AMS	Aboriginal Medical Services
BEACH	Bettering the Evaluation and Care of Health
DMS	Derived Major Specialty
NRA	Non-referred Attendances
MBA	Medical Board of Australia
DOS	Date of Service
DOP	Date of Processing
MMM	Modified Monash Model

Purpose

This document's purpose is to summarise the various methods used to estimate headcounts of General Practitioners and their workload using the following two datasets:

- Medicare data (MBS), and
- The National Health Workforce Dataset (NHWDS)

The methods for identifying and counting GPs vary across both workforce data sources and use cases, and serve to inform a variety of perspectives. For instance, some methods developed to inform on GP activity from a general information perspective, while other methods developed to inform on this activity from a workforce specific perspective. These various methods, including their descriptions and use cases, are introduced and summarised in the table below. The methods are further detailed throughout the remainder of the paper.

Table 2 Methods, descriptions, and use cases

Method	Description	Use Case
Headcount		
Medicare Benefits Division (MBD) method	Identifies GPs by service provider number and derived major speciality. These GPs provided at least one Medicare service during the reference period and had at least one claim for non-referred attendance Medicare services within Broad Types of Service item groups: A, B, or M.	*Use when seeking to identify derived major speciality GPs providing non-referred attendance Medicare services and where geography is based on the exact location of the service delivery.*
GP's providing Primary Care services method	Identifies GPs by a combination of service provider, prescriber number and main derived major speciality. These GPs provided at least one Medicare service during the reference period and had at least one claim for Medicare services for MBS item(s) within a GP's scope of practice (as agreed by Commonwealth Medical Advisors and GPs).	*Use when seeking a workforce specific method to identify main derived major speciality GPs providing a broad range of Medicare services and where geography is based on the exact location of the service delivery.*
Primary Speciality method	Identifies a subset of GPs that are vocationally registered, and whose primary specialty is General Practitioner. Based on medical	*Use when seeking to identify a subset of GPs who are vocationally registered and employed during the week they answered the medical*

Method	Description	Use Case
	workforce survey and the AHPRA registration information of the NHWDS.	*workforce survey. And where geography is based on the location of their main job (if this isn't available it's practice location, and if this isn't available it's residential location).*
Main job area methods (using raw and cleaned data)	Identifies medical practitioners who answer that the principal area of their main job is General Practitioner (Including RACGP/ACRRM/RVTS trainees). Based on the medical workforce survey information of the NHWDS	*Use when seeking to identify an additive measure of GPs (ie. by type: VR, non VR, and specialists-in-training) employed during the week they answered the medical workforce survey. Geography has been based on the location of their main job (if this isn't available it's practice location, and if this isn't available it's residential location).*
Supply method	Identifies specialist GP considered 'supply' in specialty workforce demand and supply modelling. Based on the medical workforce survey and the AHPRA registration information of the NHWDS.	*Use when seeking to identify the clinical GP specialist workforce employed during the week they answered the medical workforce survey. Geography is based on the location of their main job (if this isn't available it's practice location, and if this isn't available it's residential location).*
Workload		
Full Service Equivalent	Measures GP workforce activity based on MBS claims information of GPs delivering 'standard' Non-referred attendance Medicare services (ie. regardless of provider geography or demographics)	*Use for an estimate of GP workforce activity based on those GPs providing non-referred attendance Medicare services, and where geography is based on the exact location of the service delivery.*
GP Full-Time Equivalent (GP FTE) – HeaDS UPP	Measures the workload of GPs delivering services taking into account provider geography, demographics and patient demographic information. Based on MBS, NHWDS, and Bettering the Evaluation and Care of Health information. MBS items are based on a GP's scope of practice as agreed by Commonwealth Medical Advisors and GPs.	*Use for a workforce specific method for GP workforce activity based on a broad range of services and provider and patient demographics. Geography is based on the exact location of the service delivery.*
Full-Time Equivalent for GPs	Unlike, *GP Full-Time Equivalent*, the method measures the workload of GPs based on the total hours reported in the medical workforce survey information of the NHWDS.	Unlike *GP FTE, use for an estimate of GP workforce activity based on hours reported in the medical workforce survey, and where geography is based on the location of their main job (if this isn't available it's practice location, and if this isn't available it's residential location).*

Method	Description	Use Case
Specialist GP FTE	Measures the workload of GP specialists based on the total specialist clinical and non-clinical hours reported in the medical workforce survey information of the NHWDS.	*Use for an estimate of GP specialist workforce activity based on specialist hours reported in the medical workforce survey, and where geography is based on the location of their main job (if this isn't available it's practice location, and if this isn't available it's residential location).*

Intended audience

The intended audience for this paper is those who seek definite answers to questions of when to count who and in what category.

Additional considerations

Data sourced from registrations or services, and differences found across reporting purpose and methods, can result in different estimates for workforce headcounts and workload. These differences may impact sub-national estimates of the workforce. For instance, the MBS claims data is more spatially accurate as it captures the multiple locations that GPs are claiming Medicare. However, claiming patterns are not uniformly distributed across metropolitan, regional, rural and remote areas. The MBS claims data won't include GPs who are less likely (or unable) to claim against Medicare, ie. GPs in rural and remote areas for services provided in Aboriginal Medical Services (AMS) or hospital clinics. MBS claims data may result in GPs being counted multiple times across lower geography classification levels—e.g. Monash Modified Model (MMM)[1]—but enumerated once at the national level.

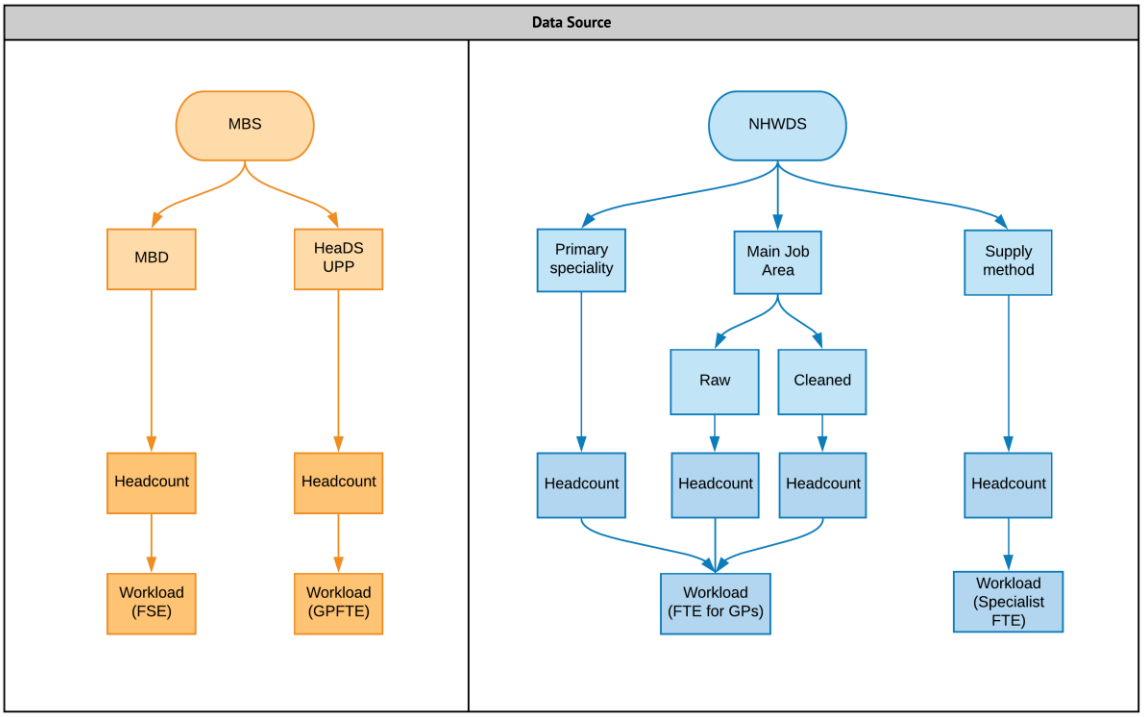
In contrast, the NHWDS is intended for workforce enumeration via registrations, with partial coverage information, and less granular spatial information, captured by the medical workforce survey. As a longitudinal data set, it can identify currently employed clinicians working in the areas of their registration. The NHWDS doesn't fully capture all the locations in which a GP works, as headcount and workload measures link to one main job location. Unlike MBS claims data, NHWDS methods won't result in counting the same GPs multiple times across locations. The NHWDS is also a measure of the workforce at a point-in-time, while MBS claims data identifies those practitioners who were a GP at any point. Refer to Table 3 for further information on the differences between these two data sets.

[1] MMM categorises areas of Australia into seven levels of remoteness.

Outline

Figure 1 presents a broad outline of the content and structure of the document.

Figure 1 - Document structure



Introduction

Equal access to primary health care services depends on the appropriate distribution of skilled health professionals across all areas of need. Socio-demographic change and increasing primary care needs for the Australian population require flexible health care systems and workforces able to adapt to change. In response to these changing needs and systems, the Health Workforce Division is developing new, fit-for-purpose analytical tools and methodologies for enumerating the health workforce.

GP headcounts and estimates of their workload at a range of geographies (such as by jurisdiction, or by metropolitan, regional, rural and remote areas) is of interest to the Department of Health, community, clinicians, researchers and policymakers. For workforce planning and monitoring purposes, it is necessary to view headcounts and workload measures at custom geographic health boundaries (such as GP catchments or Modified Monash Model (MMM) classifications) to more effectively address any maldistribution of health services.

Workforce data sources

While the notion of headcount is shared, the methodologies for identifying and counting GPs across workforce data sources are not. Methods are based on the variables available in each dataset and then optimised for a given reporting purpose or perspective; headcounts and measures of workload can be produced for either general information or workforce planning purposes.

MBS

Medicare Benefits Schedule (MBS) claims data are a source of GP workforce data. The data are an administrative by-product of the Medicare fee-for-service payment system. MBS data can be used to identify practitioners billing MBS and most likely working as GPs by relating medical qualifications of relevant registered specialities with Medicare billing service patterns. Workload can be estimated by attributing time to MBS items.

NHWDS

The Australian Health Practitioner Regulation Agency (AHPRA), in conjunction with the Medical Board of Australia (MBA), is responsible for the national registration process for medical practitioners. The data from this annual registration process, together with data from a Workforce Survey completed at the time of registration renewal, forms the National Health Workforce Dataset (NHWDS). The NHWDS can be used to identify GPs based on registrations and (or) survey responses, and workload can be measured using participant responses to questions about hours worked.

Other

Insights on the health workforce can be gathered from other data sources such as the Australian Bureau of Statistics' Australian Census and Labour force surveys. However, exploring the utility of these data sets for workforce planning activities is outside the scope of this paper.

Headcounts

The counting of GPs is complicated by several factors determined by the source of workforce data and the reporting purpose or perspective. These factors outlined below lead considerations of the appropriateness of a given method.

MBS data

Medicare Benefits Division

Medicare Benefits Division (MBD) headcount method is based on the Derived Major Specialty (DMS) of GPs focused entirely on Broad Type of Service (BTOS) – Non-referred Attendances (NRA) categories. The MBD methodology is a count of GPs who provided at least one Medicare service and had at least one claim for a Medicare service processed.

Method overview

Step 1 – Determine reference period

The reference period is defined as any Medicare service provided in the quarter, and will often include an additional time period following the end of the quarter to allow the capture of services delivered within the reference period, but claimed, and therefore processed, after the period.

Step 2 – Determine providers delivering services in the reference period

Providers who deliver at least one Medicare Service during the reference period and who have had at least one claim for Medicare Service processed during the reference period. Their services are calculated and included in determining the DMS.

Step 3 – Determine DMS for the reference period population

The DMS is derived based on the qualifications (relevant registered specialties) and service pattern of the provider. Where a provider has insufficient service levels to discern a pattern, only the most recent qualification is used. Note that as GP is not considered a speciality for the purposes of deriving the DMS, if the provider has any other registered specialty then that is what will prevail in the determination of DMS.

Step 4 – Determine DMS GP population focused on NRA items

All providers with a DMS of GP who provided at least one Non-Referred Attendance service within BTOS item groups:

- A: Non-referred Attendances — GP / Vocationally Registered GP (VR GP)
- B: Non-referred Attendances — Enhanced primary care
- M: Non-referred Attendances — Other

Step 5 – Count GPs

A distinct count of Service Provider Numbers (SPR) results in headcounts for general reporting purposes.

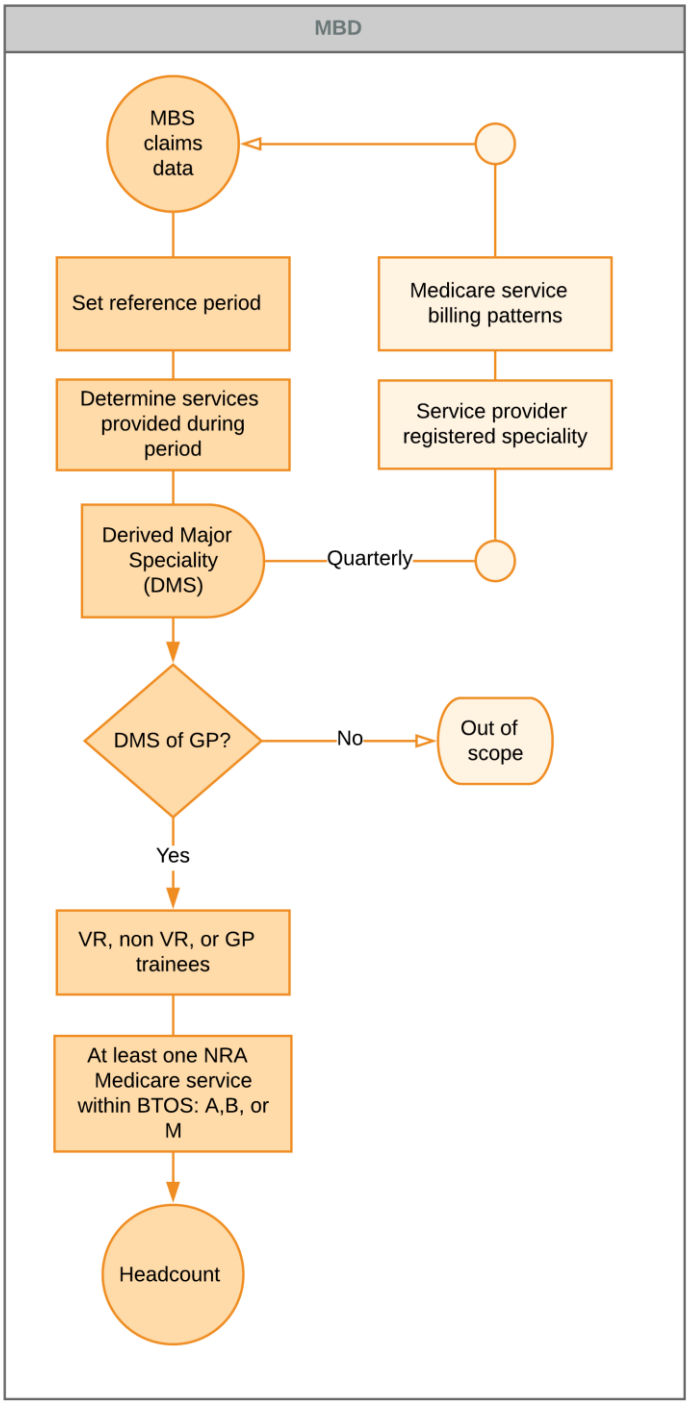
Reporting

Headcounts derived from the MBD method are used for reporting in:

- GP Practice Workforce Statistics for general information purposes (ceased)
- Report on Government Services (RoGS)
- Portfolio Budget Statements (HWD KPIs)
- Department of Health Annual Report

Note that MBS data — not originally intended for enumerating the workforce — count GPs based on (at least one) service provided and claim processed. This component of MBS data presents challenges from a health workforce planning perspective as health system resources are limited and shared in rural and remote areas (relative to metropolitan areas). This may result in a GP's scope of practice being broader than those MBS items (services) within BTOS A, B, and M.

Figure 2 - MBD method summary



GP's providing primary care services - Method

Counting GPs in rural and remote areas can be equivalent to counting GPs and other specialties like obstetrics in metropolitan and regional locations. GPs in rural and remote areas fill roles that would be taken by specialists or hospital doctors in more metropolitan and regional locations. This can complicate the identification of GPs using MBS data because the items claimed by GPs are not necessarily consistent across these areas.

Therefore, this method was developed to enhance the completeness of GP counts. This method supplements the MBD method in order to capture as much GP primary care services provided in the MBS claims data as possible. It does this by expanding Medicare Benefits Division's DMS to capture as much billing activity falling within a GP's scope of practice as possible and removing the focus on NRA GPs. The expanded DMS used in HeaDS UPP is termed the Main Derived Major Specialty (MDMS), and is further explained below.

Method overview

Step 1 – Collect data for a given reference period

The reference period is defined as any Medicare service provided during the year, including a one-month date of processing window following the end of the year (any claims for that year processed within the window will be included). GP statistics published for periods up to financial year 2023–24 and calendar year 2024 were captured using a three-month processing lag time. This data remains unchanged.

Step 2 – Determine providers who delivered any service items within a GP's scope of practice in the reference period

Providers who deliver at least one Medicare service within a GP's scope of practice in the reference period are considered in-scope. MBS items within a GP's scope of practice are determined by a reference group of GPs reviewing all GP item numbers. Their services are calculated and allocated to the quarterly DMS.

Step 3 – Determine MDMS for the reference period population

Providers within the reference period are ranked from largest to smallest (in terms of services) and are grouped by DMS. The DMS with the largest number of services is allocated as the MDMS for the reference period. MDMS is provided at the DMS sub-speciality level and includes information on procedural as well as NRA focused GPs.

Step 4 – Determine GP population

All providers with an MDMS of GP are included in the GP population. GP population excludes any specialists who provide GP services.

Step 5 – Count GPs

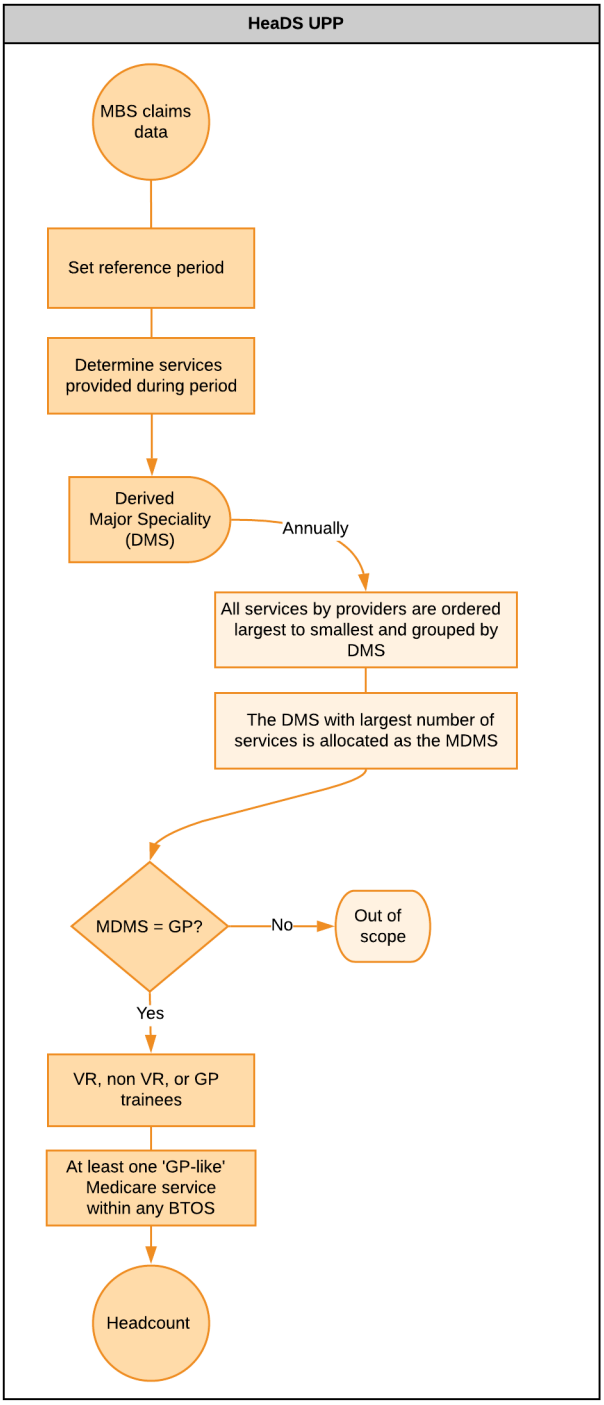
This GP population along with all relevant MBS services provided by this population in the reference period are attached along with demographic information about the provider. The data are available along with the Unique Identifier (UID) to allow for distinct counts by MDMS as per the workforce planning requirements.

Reporting

These headcounts are used for reporting in:

- Report on Government Services (RoGS) KPIs
- Portfolio Budget Statements (HWD KPIs)
- Department of Health Annual Report

Figure 3 – GP's providing primary care services method summary



NHWDS

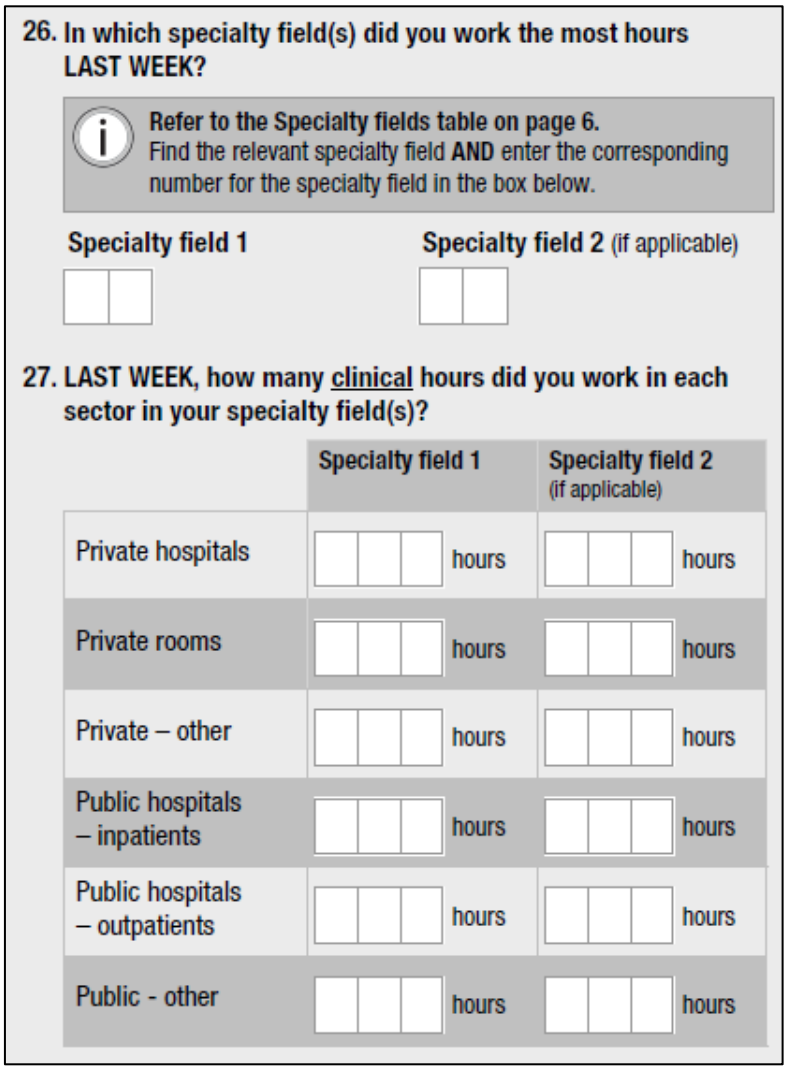
The National Health Workforce Dataset (NHWDS) headcount method(s) can be used to identify and count the numbers of GPs based on their registration and (or) survey response information.

Primary specialty

The primary specialty is a derived variable which can be used to identify the subset of the GP population that are specialists (VRGPs) whose primary specialty is general practice. Primary specialty is derived using registration data as well as the answers to the specialty field 1 and specialty field 2 questions in the workforce survey in figure 4 below. The process for deriving primary specialty is included in the figure 5.

Note that as non-VR GPs are a large part of the GP workforce, headcounts based solely on the primary specialty variable will result in a subset of total GPs (i.e., not all GPs have their GP specialty registered with AHPRA).

Figure 4 - Q26-27 Medical Practitioner Workforce Survey



26. In which specialty field(s) did you work the most hours LAST WEEK?

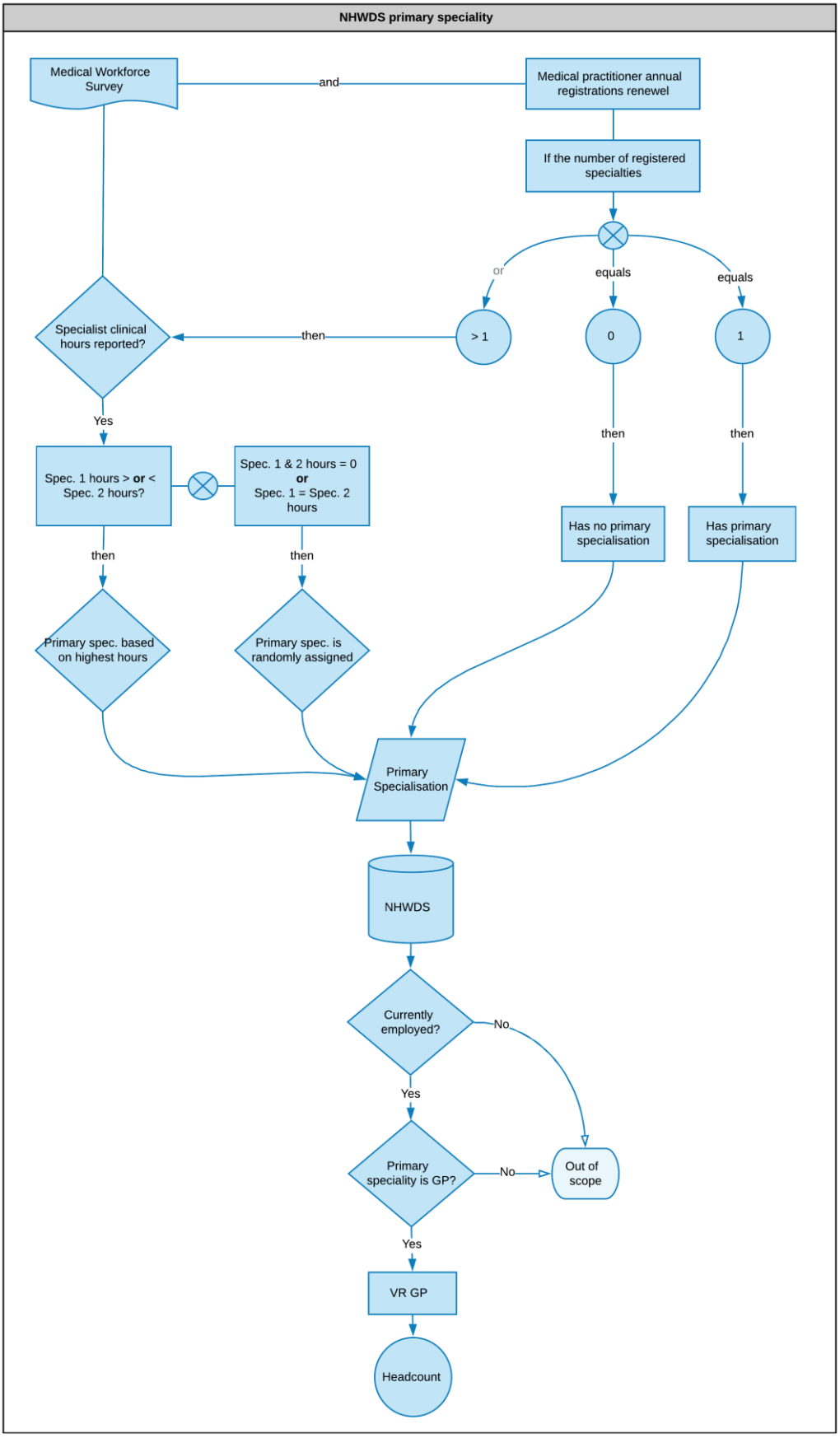
Refer to the Specialty fields table on page 6.
Find the relevant specialty field **AND** enter the corresponding number for the specialty field in the box below.

Specialty field 1 | **Specialty field 2** (if applicable)

27. LAST WEEK, how many clinical hours did you work in each sector in your specialty field(s)?

	Specialty field 1	Specialty field 2 (if applicable)
Private hospitals	hours	hours
Private rooms	hours	hours
Private – other	hours	hours
Public hospitals – inpatients	hours	hours
Public hospitals – outpatients	hours	hours
Public - other	hours	hours

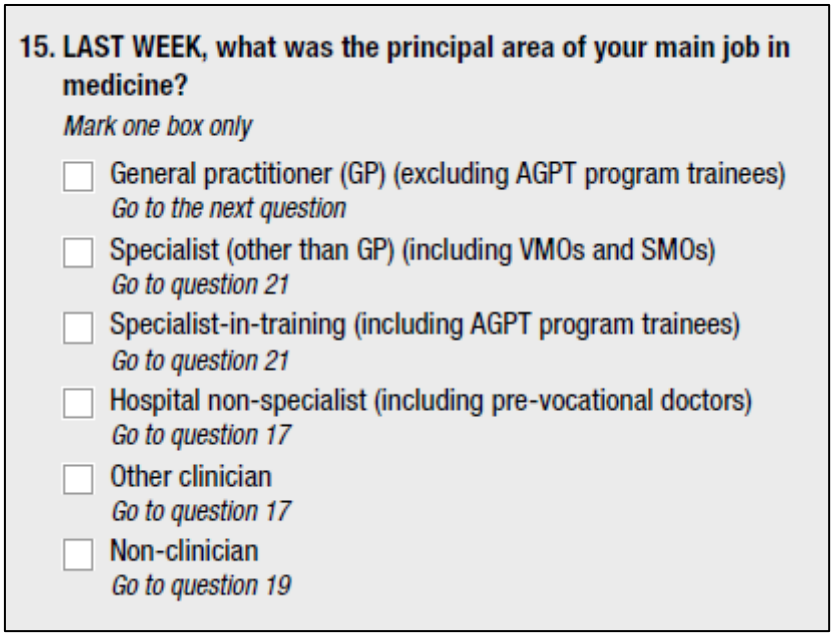
Figure 5 - Primary specialty method summary



Main job area

The data provided by this method identifies GPs using the *Principal area of main job* variable. This variable captures the answers to the following question of the medical workforce survey:

Figure 6 - Q15 Medical Practitioner Workforce Survey



However, additional cleaning rules can be applied which result in additive measures of VR, non-VR and GP trainee counts.

Figure 9 below shows that medical practitioners are counted as a GP if the principal area of their main job is GP (with or without specialist qualifications), or:

- a GP specialist (if their primary specialty is GP), or
- a specialist-in-training (if they are a GP trainee) and a hospital non-specialist, other clinician, or non-clinician.

GP trainees are identified based on respondent's answers to either of the following questions in the medical workforce survey:

Figure 7 - Q17 Medical Practitioner Workforce Survey

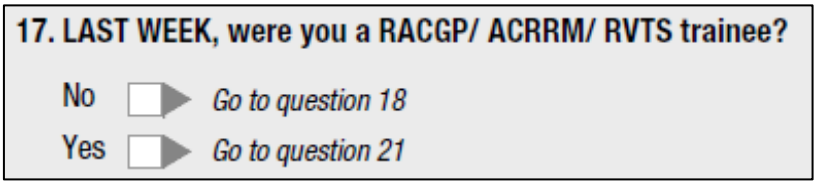
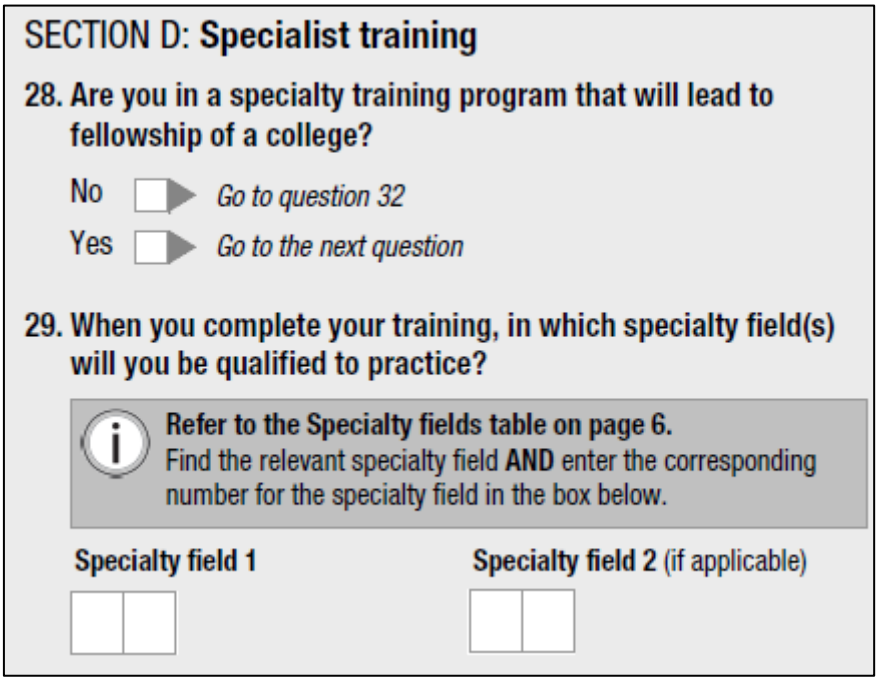


Figure 8 - Q28-29 Medical Practitioner Workforce Survey



SECTION D: **Specialist training**

28. Are you in a specialty training program that will lead to fellowship of a college?

No ☐ *Go to question 32*

Yes ☐ *Go to the next question*

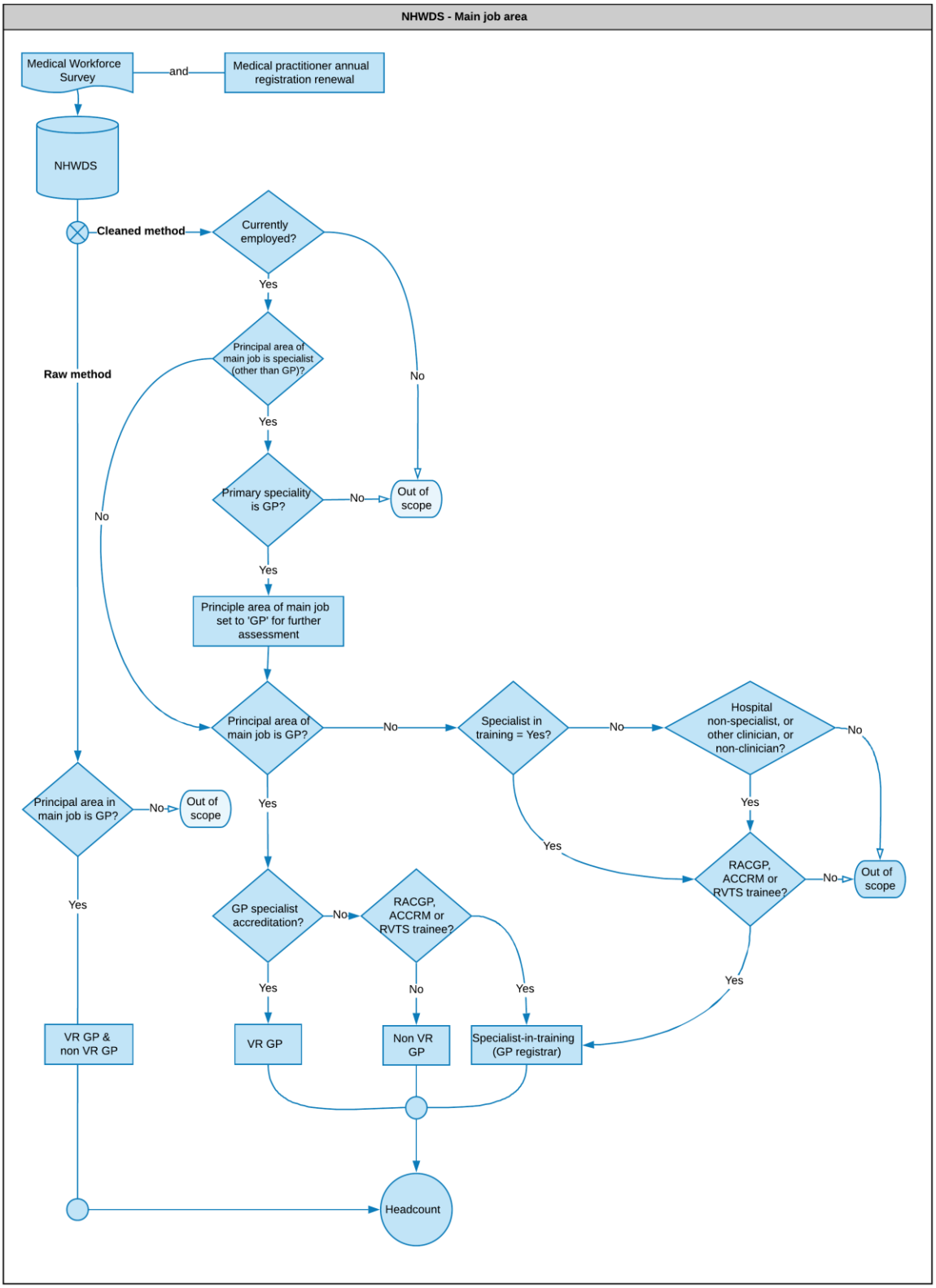
29. When you complete your training, in which specialty field(s) will you be qualified to practice?

Refer to the Specialty fields table on page 6.
Find the relevant specialty field **AND** enter the corresponding number for the specialty field in the box below.

Specialty field 1 ☐☐

Specialty field 2 (if applicable) ☐☐

Figure 9 - Main job area (raw & cleaned) method summary



Supply method

For headcounts of specialists using the NHWDS, a medical practitioner is classified as a specialist GP, and therefore '*supply*' in specialty workforce demand and supply modelling, if the medical practitioner has current medical registration and:

- has accreditation with AHPRA as a GP
- is employed (excluding those on leave for 3+ months)
- working as a clinician with clinical hours, and
- report that they were working as a GP (in specialty field 1 or 2)

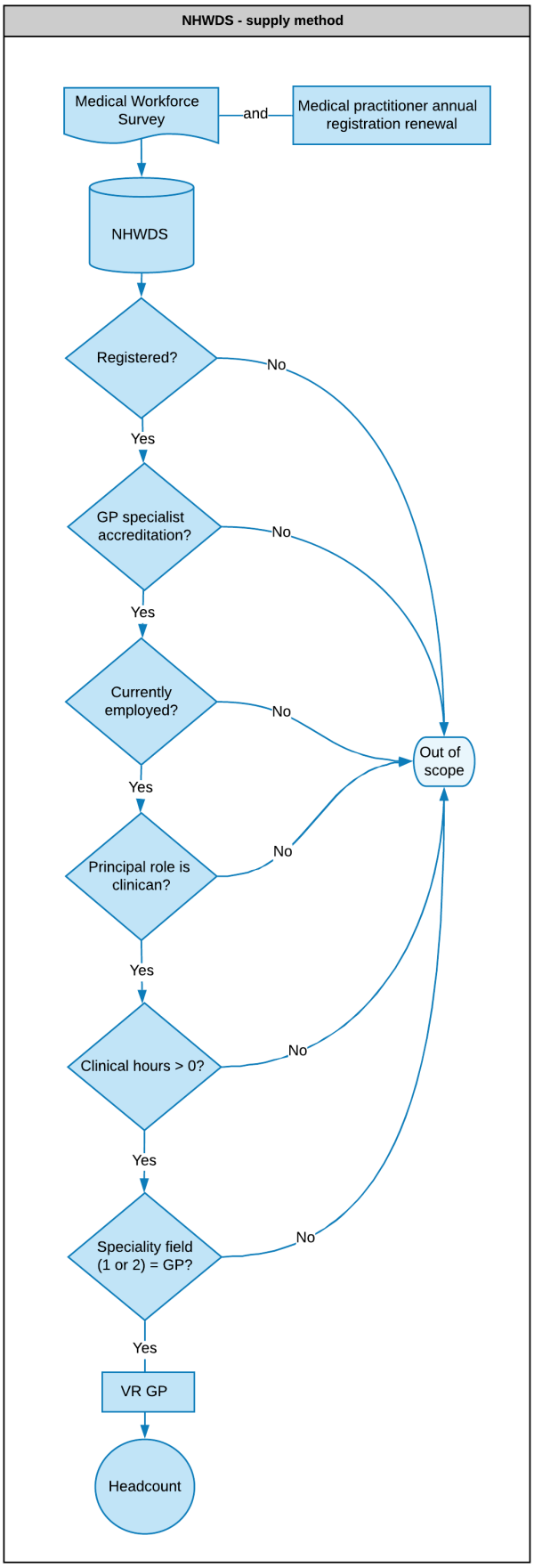
Note: if a GP is classified as a specialist with the year of training completion the same as the year of the dataset then they are not classified as a specialist but as a trainee in the supply method (the assumption is that they will be counted as a specialist the following year).

Reporting

These headcounts are used for reporting in:

- Customised data requests and analysis (e.g., research, health needs assessments and planning)
- Australia's Future Health Workforce (AFHW) reports

Figure 10 - Supply method summary



Workload method summaries

Full Service Equivalent

The *Full Service Equivalent* (FSE) method uses a statistical model to estimate a workload for medical practitioners according to their services billed. While the MBS claims data does not include information on duration, the schedule includes time-based regulations for some items that can be used to estimate a proxy for duration.[2]

Step 1 – Set the Full time benchmark:
One FSE equates to a workload of 7.5 hours per day or 37.5 hours per week.

Step 2 – Build a regression model
A model is used to estimate the relationship between time and schedule fees.

Step 3 – Estimate time for all MBS items using regression model

Step 4 – Estimate hours worked by summing working time for all MBS items

Step 5 – Calculate FSE
FSE = (total days worked * average hours per day) / Full time benchmark

FSE is capped to not exceed 13 hours per day for an individual practitioner.

Example:
GP who worked 5 days, 6 hours/day: FSE = (5 * 6) / 37.5 = 0.8

[2] In estimating a proxy for duration, an efficiency factor is applied against the time-based regulations specified in the schedule to approximate an 'efficient duration': not all services provided will meet the time-based regulations on the schedule.

GP FTE (GP's providing primary care services)

The *GP FTE* uses Medicare items and BEACH data to determine the duration a GP has spent on billable, non-billable, and non-clinical time. A non-clinical factor is determined using the NHWDS.

Step 1 – Set the full time benchmark

One GP FTE equates to a workload of 8 hours per day or 40 hours per week over 46 weeks of the year.

Step 2 – Build a regression model using BEACH multivariate analysis data

- *Step 2a – Adjustment to the regression model for low schedule fee items*

Step 3 – Estimate clinical billable duration for MBS items in BEACH data

Step 4 – Estimate clinical billable duration for MBS items not in BEACH data

Step 5 – Estimate clinical non-billable duration

Step 6 – Calculate clinical duration (billable and non-billable) at the GP level

Step 7 – Estimate of non-clinical duration

Step 8 – Calculate GP FTE

Example:

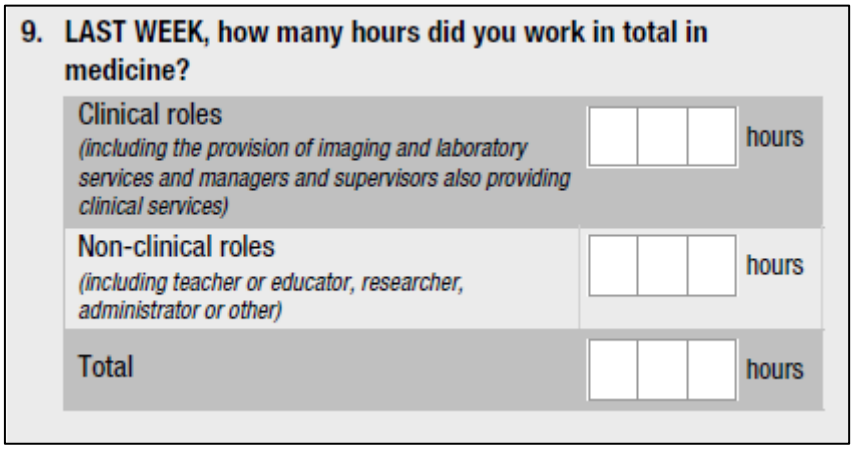
GP who billed items over a year equating to 132,480 minutes (total working time):
GPFTE =132,480 /110,400 = 1.2

Note: The GPFTE is not capped

FTE for GPs

Unlike *GP FTE*, FTE for GPs is based on the NHWDS. Information on total hours worked is captured in the medical workforce survey, and can be further disaggregated into clinical and non-clinical hours.

Figure 11 - Q9 Medical Practitioner Workforce Survey



Step 1 – Set the full time benchmark

One FTE equates to a workload of **8 hours per day** or **40 hours per week**.

Step 2 – Calculate FTE for GPs

The FTE for GPs is based on total hours reported in the Workforce Survey where
FTE GP = total hours / fulltime benchmark.

Example:

GP who filled in the workforce survey as 80 total hours in the prior week:

FTE GP =80 /40 = 2

Note, total hours is capped (controlled during survey completion) at 125 hours a week and therefore FTE for GPs is effectively capped at 3.125

Specialist GP FTE

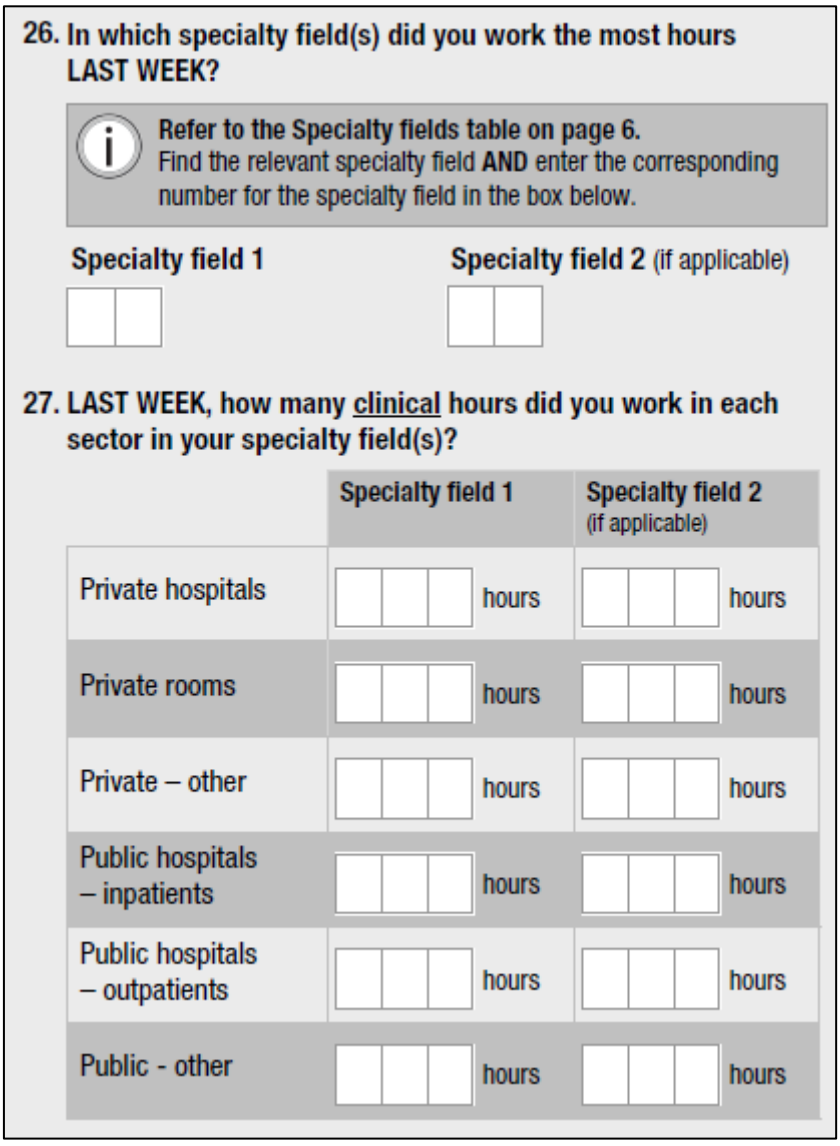
Specialist GP FTE is based on the NHWDS. Information on hours worked is captured by the medical workforce survey. The hours worked are captured at three levels:

- Total hours
- Clinical and non-clinical hours, and
- Specialist clinical hours

Respondents are asked to report total hours worked in the previous week and then split this time into hours worked in clinical roles and non-clinical roles. Non-clinical is defined as 'including teacher, researcher, administrator and other'.

Further into the survey, respondents are asked to specify the specialties in which they worked the most hours in the prior week as well as the clinical hours they worked in each of the specialties (up to two specialities).

Figure 12 - Q26-27 Medical Practitioner Workforce Survey



26. In which specialty field(s) did you work the most hours LAST WEEK?

Refer to the Specialty fields table on page 6.
Find the relevant specialty field **AND** enter the corresponding number for the specialty field in the box below.

Specialty field 1 | **Specialty field 2** (if applicable)

27. LAST WEEK, how many clinical hours did you work in each sector in your specialty field(s)?

	Specialty field 1	Specialty field 2 (if applicable)
Private hospitals	hours	hours
Private rooms	hours	hours
Private – other	hours	hours
Public hospitals – inpatients	hours	hours
Public hospitals – outpatients	hours	hours
Public - other	hours	hours

Step 1 – Set the full time benchmark

One Specialist GP FTE equates to a workload of **8 hours per day** or **40 hours per week**.

Step 2 – Adjust or impute specialist clinical hours based on reported (or missing) clinical hours

Step 3 – Estimate specialist non-clinical hours

Step 4 – Estimate total specialist hours

Step 5 – Calculate Specialist GP FTE

The Specialist GP FTE is based on total specialist clinical hours for GPs, where

Specialist GP FTE = total specialist (GP) hours / fulltime benchmark

Example:

A specialist GP whose total specialist hours in General Practice were estimated to be 60 hours per week:

Specialist GP FTE = 60 /40 = 1.5

Note: total hours is capped (controlled during survey completion) at 125 hours a week and therefore Specialist GP FTE is effectively capped through the adjustment process at step 2.

Table 3 - Comparison of MBS claims data and NHWDS

	GP's providing Primary Care services (MBS)	NHWDS	Outcome/impact
Timing	Data covers a 12 month period & counts or estimate the workload of GPs who worked at any stage during the 12 months	Data is point in time (as at the date of data extraction – usually November every year). Will count GPs if they are registered at the date of data extraction and were employed during the week they answered the survey (between August – October)	HeaDS UPP Tool method will have a higher headcount of GPs as they will include practitioners who practiced as a GP outside the workforce survey window.
Scope/ coverage	Only includes medical practitioners who have a Medicare Provider Number and billed MBS during the period	NHWDS includes all medical practitioners as they are required by law to be registered with MBA/AHPRA to practice in Australia. Very few limited registrants complete the survey and almost no provisional registrants complete the survey.	NHWDS has full coverage for registration, but not the medical workforce survey – (provisional registrants would have no impact of GP numbers, however limited registrants would have some impact on GP numbers) HeaDS UPP Tool won't include GPs who don't bill Medicare (i.e. AMS, hospital clinics) which leads to a bias as this is more likely to occur in more remote areas
Identification /classification as a GP	Fundamental reliance on DMS. Reliance on correctly identifying GP's scope of practice (MBS items are reviewed by Commonwealth Medical Advisors and GPs)	Reliance on self-report through the medical workforce survey and/or specialist registration (see next row). Survey results go through a cleaning process and there is an imputation process for all missing records and some missing items.	HeaDS UPP Tool will have a higher headcount as it will capture practitioners who have provided a GP service (no matter how much or how little) regardless of what they consider to be their main job. NHWDS will only capture those whose main job is GP or practicing as a GP as their first or second main speciality or is a GP trainee. NHWDS imputation rules may affect results.
Specialist accreditation/ registration (i.e. split between VRGP and non-VRGP)	Medical practitioners must register their specialities with DHS is order to bill specific Medicare items	General Practitioner is not a protected title so medical practitioners do not have to register their GP speciality with MBA or the AHPRA in order to practice as a specialist GP.	Splitting GPs into VRGP and Non-VRGP categories is more accurate in HeaDS UPP. Cross checking those who work as a GP against their specialist registration produces inaccurate results in the NHWDS (overestimate

	GP's providing Primary Care services (MBS)	NHWDS	Outcome/impact
			non-VRGPs and underestimate VRGPs). Limited Area of Need Program registrants will also be incorrectly classified as Non-VRGPs
GP trainees		Reliance on self-reporting through the medical workforce survey, although it is a separate question on its own. It is not asked if the medical practitioner already has a registered speciality.	NHWDS seems to produce more accurate numbers for GP trainees (i.e. higher numbers and they more closely match MET figures – just over 5,500) For MBS this information would be available through the DMS method.
Geography	Is the exact location of service delivery	Location is derived based on the location of their main job (if this isn't available its practice location and if this isn't available its residential location). There is another location variable which is one regional, rural or remote location that the practitioner works in additional to their main location.	MBS is more accurate as it allows for/ and captures the multiple locations that GP work in (if the GP bills MBS). This means GP headcount will be double counted across different geographies and will only be unique at the national level). NHWDS doesn't fully capture all the locations in which a GP delivers services. This means all headcounts (and hours) are attributed to the one MAIN location in which the GP works, when we know from MBS data that most GPs work in multiple locations. So NHWDS would be an over estimation within an area (but is better for counting those in remote areas who don't bill Medicare). This method also means GP headcounts aren't counted multiple times across geographies.

Appendix A - Comparison of MBS data elements

Comparison	MBD	GP's providing Primary Care services	Reason
Identifier	SPR	UID	UID is more unique than SPR and is more applicable to Main area of work for workforce planning purposes
Services included	By BTOS : Non-referred attendances GP/VRP GP Non-referred attendances – Enhances Primary care Non-referred attendances - Other	All Medicare items within a GP's scope of practice (as agreed by Commonwealth Medical Advisors and GPs) claimed by any individual classified as "MDMS" GP	Workforce planning requires a "Main" area of work to align with other workforce planning methods. The scope of the HeaDS UPP tool requires analysis of all Medicare items billed by general practitioners. For procedural GPs the full scope of Medicare claims are required for the tool.
Headcount	Count of SPR where DMS = GP and at least 1 NRA attendances has been provided in the given quarter.	Count of UID where MDMS = GP across an entire year.	To include all general practitioners whose main area of work is in general practice in alignment with other workforce planning methodologies. The MBD methodology may include specialist who are not primarily general practitioners (in both its headcount and services count). The MBD methodology looks at DMS which applies only across one quarter of the year, while the MDMS count looks across the entire year.

Appendix B - BTOS categories

Code	Name
A	Non-referred attendances GP/VR GP
M	Non-referred attendances - Enhanced Primary Care
B	Non-referred attendances - Other
O	Non-referred attendances - Practice Nurse Items
C	Specialist attendances
D	Obstetrics
E	Anaesthetics
N	Pathology Episode Initiation
F	Pathology Tests
G	Diagnostic Imaging
H	Operations
I	Assistance at Operations
J	Optometry
K	Radiotherapy and Therapeutic Nuclear Medicine
L	Other MBS Services
P	Allied Health
Q	Teen Dental
R	Child Dental Benefits