General Practice Referrals

Rationale and methodology
for counting general practice referrals

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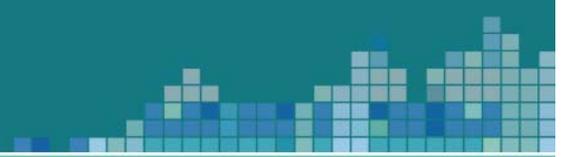
1 Introduction

General practitioners are the gateway to other Medicare funded services. As such, Medicare outlays associated with primary care practice are not limited to the consultations the general practitioners render themselves, but also the services they refer on to other disciplines, or request pathology and diagnostic imaging services.

In this paper, we use the term "referrals" to mean both referrals to other disciplines, and requests for pathology and diagnostic imaging services.

Of interest, is the rate at which general practitioners make these referrals. There is an established methodology for national rates, using all non-referred attendances. However, while this methodology is suitable for tracking at a national level, it is not well suited to tracking and analysis at the practice level.

There is significant variation in the service mix across practices, which should be taken into account when comparing referral rates. For example, after hour services as a proportion of all services provided varies considerably by practice.

To confidently track the effects of corporate practice on Medicare outlays at the level of disaggregation required, a new definition of and methodology for a "referral" is required.

This paper outlines the methodology developed to quantify referral patterns and standardise referral rates to diagnostic imaging, pathology, allied health, dental and specialists at practice level.

This work has been undertaken as part of the Department of Health and Ageing project, "Tracking the Effects of Corporate Practices on Medicare Outlays". The GP referral methodologies described in this paper have been developed for use in the project. Further experimental and exploratory work to refine and confirm the methods would be required before wider application could be considered.

2 Description of data

The way Medicare data is collected limits the ways in which referrals can be identified and counted. An understanding of the data available is essential to understanding the reasons for the final methodology set out in this paper.

Each Medicare record for a referred service has the following fields (see Table 1).

Table 1: Fields in Medicare records for referred services

Variable Label	Variable
Patient Identification Number	PIN
Servicing Provider Number	SPR
Servicing Provider Location Digit	SPRPRAC
Date of Service	DOS
Referring Provider Number	RPR
Referring Provider Location Digit	RPRPRAC
Date of Referral	RPDATE
Medicare Item Number	AGGRITEM

The only information that a referred service captures relating to the original consultation is:

- the date the referral was made,
- the provider number of the practitioner making the referral,
- the practitioner's location digit, and
- the patient's identification number (PIN).

As there is no unique link between the referred specialist, allied health, dental, pathology or diagnostic imaging service and the original GP consultation, this information must be derived from the information available.

3 Options for counting referrals

In developing the methodology we considered three options.

The first option is application of the national general practice referral rate methodology at practice level. This methodology is simple to apply, but while this simplicity is appropriate for a broad national indicator it fails to take into account important factors at the practice level. See "Option 1: All referred services" below.

Options 2 and 3 modify the first option to address the analysis issues, but require information about the link between the original consultation and the referred service to be inferred from the data available. This introduces additional complexity to the calculation which must be considered when interpreting the results. Options 2 and 3 also are considered in more detail below.

In considering these options we balanced the trade-off between a simple but limited approach, or a more complicated approach that introduced additional data concerns but provided more analytical options.

Option 1: All referred services

The first option is to simply use the national general practice referral rate methodology at practice level.

The national referral rate is calculated using aggregated totals across a quarter or year. It is reported as the number of referred services per 100 GP consultations.

The national general practice referral rate to other disciplines is calculated as:

$$\text{Referral Rate} = \frac{No.\_referred\_services}{No.\_GP\_consultations} \times 100$$

Data issues

All of the required fields for this calculation are available in Medicare data. To construct this kind of referral rate it is as simple as counting the number of instances each provider's number appears in the referring provider number field.

Analysis issues

The types of services provided by a practice will influence how many referrals they make. The practice's service mix has not been taken into account in this option.

If applied at practice level, this calculation of referral rates may overstate the referrals of one practice relative to another. For example, if a GP refers a patient to a specialist and the patient sees the specialist three times, this would be counted as three referrals under this option. As it is the specialist, not the general practitioner, who determines how often the patient should see them once they have been referred, this may overstate the direct effect the practice has on Medicare outlays.

Option 2: "Referred service" from original consultation

This method expands Option 1 by correcting for the service mix of a practice. It provides multiple separate referral rates for each Medicare item number.

All services that were referred by general practitioners are matched to GP consultations with the same PIN, provider number and provider location digit. The original GP consultation's "date of service" must also match the referral's "date of referral".

Referred services are only counted if they can be matched to a consultation item.

Referral Rate (for a consultation item)

$$= \frac{No.\_referred\_services\_originating\_from\_consultation\_item}{No.\_GP\_consultations\_for\_specific\_item} \times 100$$

Data issues

As there is no link between the original consultation and any referred services recorded in the data, the services were matched using the patient identification number (PIN), provider number, provider location digit, and a consultation date of service matching the referral's date of referral.

Analysis issues

This method accounts for differing service mixes between practices, however the reliability of the matching process needs to be considered when interpreting results.

Option 3: "Referred episode" from original consultation

This option builds on Option 2 by correcting for both the service mix (as in Option 2) and adding an approach to multiple referred services arising from the one consultation.

Because some referrals result in only a single referred service, while others can result in a series of referred services, we define a new measure "referred episode" which may include multiple referred services arising from one consultation.

Data issues

The issues identified for Option 2 also apply to Option 3.

In addition, a new measure called a "referred episode" is derived from the data by matching referred services back to the original consultation as a group.

The data available and methods used to do this differ for specialists and consultant physician attendances, allied health, and dental; pathology tests; and diagnostic imaging reports.

- In the case of **specialist consultant physician attendances, allied health and dental**, the GP need only refer the patient once every 12 months. The referred provider determines how often they will see the patient within the 12 month period. If the patient still needs the specialist's services after the 12 month period, the GP must make another referral. The specialist may then continue to bill subsequent consultations. Depending on the definition, these consultations may or may not be considered as part of the episode.

- **Pathology tests and diagnostic imaging requests** do not work on a 12 month referral period, and the GP may request multiple tests or a series of future tests on the same day. Each unique requesting date for a GP/patient combination may not be a unique referral, but may need to be considered as many referrals.

Analysis issues

This option solves many of the analytical issues and allows for a broad range of practice-level analyses. However, the reliability of the matching process needs to be considered when interpreting results, as does the interpretation of the new measure, "referred episode".

3.1 Examples from claim data

The workability of each of the options depends on the ability to resolve the data issues identified. These issues and their solutions are easier to understand when examples are considered. We have drawn examples from the data for specialist/consultant physician services, pathology, and diagnostic imaging.

Example 1: Ongoing specialist/consultant physician referral

Table 2 shows the services for a patient referred for psychiatric care.

On 1 March 2010, this patient had a GP consultation attracting MBS item 00036. They then had a referred service with psychiatrist "A" on 2 March 2010, with a referral date of matching the original consultation.

From 13 April 2010 to 4 April 2011 there were 27 further services with another psychiatrist "B", each with a referral date of 10 March 2010. However, there was no GP consultation on 10 March 2010.

We could either consider that:

- all the referred services originated from the item 00036 on 1 March 2010, or
- only the initial consultant physician attendance on the 2 March 2010 originated from the item 00036, and the consultant psychiatrist attendances originated from a non-consultation referral.

Depending on the interpretation chosen, this could be counted as either 28 referrals under Options 1 or 2, or as two referral episodes under option 3.

Table 2: A unique referring provider and patient combination to Specialist services

	Provider Number	Item	Item Description	Date of Service	Referral Date
1	A	110	Initial Consultant Physician Attendance	2-Mar-10	1-Mar-10
2	B	296	Initial Consultant Psychiatrist to New Patient	13-Apr-10	10-Mar-10
3	B	306	Consultant Psychiatrist 45 to 75 minutes	22-Apr-10	10-Mar-10
4	B	306	Consultant Psychiatrist 45 to 75 minutes	29-Apr-10	10-Mar-10
5	B	304	Consultant Psychiatrist 30 to 45 minutes	6-May-10	10-Mar-10
6	B	306	Consultant Psychiatrist 45 to 75 minutes	13-May-10	10-Mar-10
7	B	306	Consultant Psychiatrist 45 to 75 minutes	20-May-10	10-Mar-10
8	B	304	Consultant Psychiatrist 30 to 45 minutes	21-May-10	10-Mar-10
8	B	306	Consultant Psychiatrist 45 to 75 minutes	27-May-10	10-Mar-10
10	B	304	Consultant Psychiatrist 30 to 45 minutes	11-Jun-10	10-Mar-10
11	B	304	Consultant Psychiatrist 30 to 45 minutes	5-Jul-10	10-Mar-10
12	B	304	Consultant Psychiatrist 30 to 45 minutes	16-Jul-10	10-Mar-10

	Provider Number	Item	Item Description	Date of Service	Referral Date
13	B	304	Consultant Psychiatrist 30 to 45 minutes	5-Aug-10	10-Mar-10
14	B	304	Consultant Psychiatrist 30 to 45 minutes	7-Sep-10	10-Mar-10
15	B	304	Consultant Psychiatrist 30 to 45 minutes	6-Oct-10	10-Mar-10
16	B	304	Consultant Psychiatrist 30 to 45 minutes	2-Nov-10	10-Mar-10
17	B	304	Consultant Psychiatrist 30 to 45 minutes	17-Nov-10	10-Mar-10
18	B	306	Consultant Psychiatrist 45 to 75 minutes	24-Nov-10	10-Mar-10
19	B	304	Consultant Psychiatrist 30 to 45 minutes	21-Dec-10	10-Mar-10
20	B	304	Consultant Psychiatrist 30 to 45 minutes	19-Jan-11	10-Mar-10
21	B	306	Consultant Psychiatrist 45 to 75 minutes	11-Feb-11	10-Mar-10
22	B	326	Consultant Psychiatrist 45 to 75 minutes (In Hospital)	19-Feb-11	10-Mar-10
23	B	326	Consultant Psychiatrist 45 to 75 minutes (In Hospital)	21-Feb-11	10-Mar-10
24	B	326	Consultant Psychiatrist 45 to 75 minutes (In Hospital)	22-Feb-11	10-Mar-10
25	B	306	Consultant Psychiatrist 45 to 75 minutes	23-Feb-11	10-Mar-10
26	B	304	Consultant Psychiatrist 30 to 45 minutes	22-Mar-11	10-Mar-10
27	B	304	Consultant Psychiatrist 30 to 45 minutes	28-Mar-11	10-Mar-10
28	B	304	Consultant Psychiatrist 30 to 45 minutes	4-Apr-11	10-Mar-10

Example 1: Series of pathology tests

Table 3 shows data for a patient who was referred for a series of blood tests[1]. On this occasion, there is only one referral date, 5 March 2010, for each of the thirteen services. There is a single matching GP consultation on 5 March 2010, attracting an item 00023.

The example would be counted as 13 separate referrals under Options 1 or 2, or as one referral episode under Option 3.

Table 3: A unique referring provider and patient combination to Pathology services

	Provider Number	Item	Item Description	Date of Service	Referral Date
1	C	65120	Haematology Test	8-Feb-10	5-Feb-10
2	C	73928	Patient Episode Initiation	8-Feb-10	5-Feb-10
3	C	65120	Haematology Test	12-Feb-10	5-Feb-10
4	C	73928	Patient Episode Initiation	12-Feb-10	5-Feb-10
5	C	65120	Haematology Test	26-Feb-10	5-Feb-10
6	C	73928	Patient Episode Initiation	26-Feb-10	5-Feb-10
7	C	65120	Haematology Test	2-Mar-10	5-Feb-10
8	C	73928	Patient Episode Initiation	2-Mar-10	5-Feb-10

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[1] Some medications require frequent monitoring to ensure effectiveness and safety. For example, Warfarin is an anticoagulent which requires frequent monitoring through pathology tests, initially daily, due to the risk of bleeding if the dosage is incorrect.

	Provider Number	Item	Item Description	Date of Service	Referral Date
9	C	65120	Haematology Test	9-Mar-10	5-Feb-10
10	C	73928	Patient Episode Initiation	9-Mar-10	5-Feb-10
11	C	65120	Haematology Test	9-Apr-10	5-Feb-10
12	C	73928	Patient Episode Initiation	9-Apr-10	5-Feb-10
13	C	65120	Haematology Test	16-Apr-10	5-Feb-10
14	C	73928	Patient Episode Initiation	16-Apr-10	5-Feb-10
15	C	65120	Haematology Test	29-Apr-10	5-Feb-10
16	C	73928	Patient Episode Initiation	29-Apr-10	5-Feb-10
17	C	65120	Haematology Test	27-May-10	5-Feb-10
18	C	73928	Patient Episode Initiation	27-May-10	5-Feb-10
19	C	65120	Haematology Test	3-Jun-10	5-Feb-10
20	C	73928	Patient Episode Initiation	3-Jun-10	5-Feb-10
21	C	65120	Haematology Test	29-Jun-10	5-Feb-10
22	C	73928	Patient Episode Initiation	29-Jun-10	5-Feb-10
23	C	65120	Haematology Test	12-Jul-10	5-Feb-10
24	C	73928	Patient Episode Initiation	12-Jul-10	5-Feb-10
25	C	65120	Haematology Test	30-Jul-10	5-Feb-10
26	C	73928	Patient Episode Initiation	30-Jul-10	5-Feb-10

Example 3: Multiple GP consultations

A GP requested diagnostic imaging items 61425 and 61505 (Nuclear Medicine Whole Bone Study) for a patient on 11 Mar 2010.

On that date, the patient had the five services with his general practitioner, as shown in Table 4, together with the associated schedule fees for these items (as at November 2009).

Table 4: Multiple GP services on date of referral

Item	Description	Schedule Fee
00023	Standard GP Consultation	$34.30
00702	Health Assessment 75 years old +	$253.30
00721	Preparation of a GP management plan	$133.65
00723	Development of team care arrangements	$105.90
10997	Practice Nurse Chronic Disease	$11.35

There is no record that tells us which service generated the request. In this case we need to decide which item we count as the originating item.

Under Option 1, there is no decision to make as all figures are used in aggregate.

Under Options 2 and 3, the referral needs to be matched to a particular service. A consistent method of choosing the service is required. Assuming that the referral is associated with the highest value service is a workable solution. In this case, the

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Health Assessment item with a schedule fee of $253.30 would be considered the match.

Example 4: Non-consultation referrals

Examination of the data also showed that not all referrals have matching consultations. Such referrals are valid so long as the referring provider has had a consultation with the patient regarding the referred condition.

The Medicare Benefits Schedule (MBS), Note 6.2.2 (i) relating to specialist and consultant physician referred services says[2].

> *For a valid "referral" to take place:-*
>
> *The referring practitioner must have undertaken a professional attendance with the patient and turned his or her mind to the patients need for a referral and communicate relevant information about the patent to the specialist or consultant physician (but this does not necessarily mean an attendance on the occasion of the referral);*

This leads to the idea of **non-consultation referrals**.

For the purposes of this project, these referrals have been retained in the dataset without a matching consultation and defined as referrals from a non-consultation.

The two figures below show the extent of non-consultation referrals and how they vary between practices.

Figure 1: Percentage of non-matched referrals by number of practices

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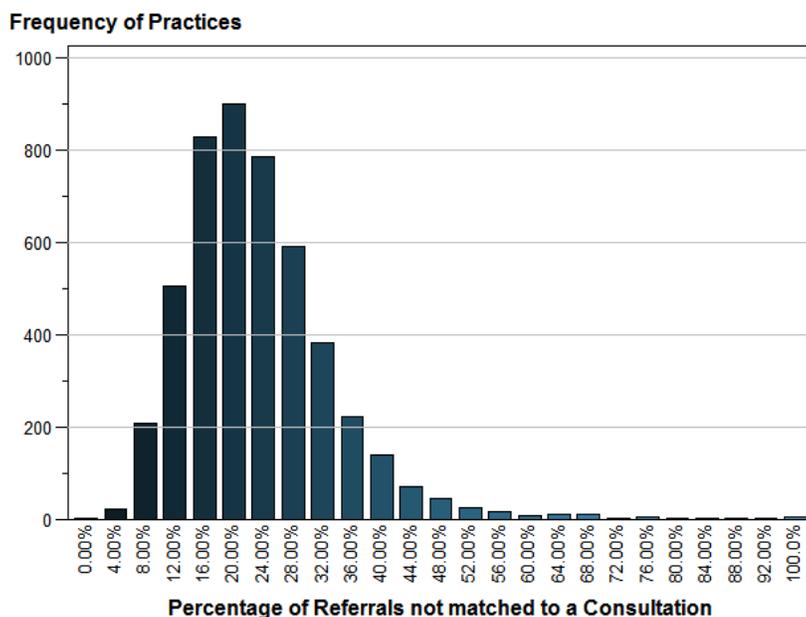
[2] For more evidence relating to Allied health, Pathology and Diagnostic Imaging please see Appendix 1

Figure 2: Cumulative percentage distribution of Figure 1
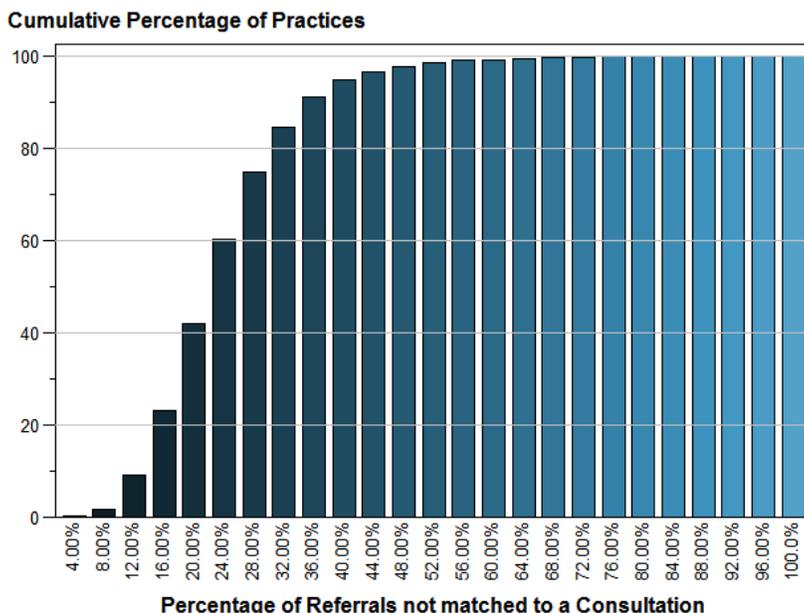
Cumulative Percentage of Practices

Figure 1 shows that for a typical practice approximately 20% of all referrals can not be matched to a consultation. Figure 2 shows that 60% of all practices had less than 24% of referrals left unmatched, and 90% of all practices had unmatched referrals of less than 35%.

Not all referrals without a matching consultation can be explained as a non-consultation referral of the type allowed by the Medicare Benefits Schedule (MBS), Note 6.2.2 (i). Others may be due to administration errors or data entry errors.

In order to understand how these failures to match occur, we examined 10 practices with high rates of unmatched referrals[3]. The sample included 70 general practitioners. Reasons seen for the high level of mismatches were:

- Inconsistent provider location digits. The provider has used a different location check digit for the consultation and the referral.

  To quantify this problem, matches were made irrespective of the location check digit. Overall, 12% of unmatched referrals from the 10 practice sample found a match when the provider location digit was ignored. The success of this method varied across the practices. One practice had 40% of its mismatches now successfully matching to a consultation, and other practices didn't gain any extra matches.

- Referral date as the date of service - the referred service provider entered the date of the referred service instead of the date of the referral. This may be because the referral date was left off the referral form.

  To be able to quantify this problem, a count of the remaining unmatched referrals with a date of service equal to the date of referral was made.

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[3] Practices were included in the sample if they had more than 70% unmatched referrals and more than 1,000 services in the 2010 calendar year

The results from the 10 practice sample were that 52% of the original unmatched referrals had the date of the referred service equal to the date of the referral. For one of the practices, 96% of all their unmatched referrals had this property (or 86% of *all* their referrals).

▪ Other reasons - No further patterns could be found. The remaining mismatches may be other types of administration errors or legitimate referrals from non-consultations.

3.2 Option selected

Options 1 and 2 mask a lot of the complex reasons why referrals are made, and important properties of referrals which may distinguish how corporatisation of General Practice is affecting Medicare outlays.

As the data issues identified with both Options 2 and 3 were able to be satisfactorily addressed, the third option – to create a "referred episode" - was chosen as it allows the widest range of analysis.

4 Methodology

The methodology to calculate "referral episodes" contains 4 steps:

- Step 1 Identify GPs in practices
- Step 2: Separate referral types to different datasets
- Step 3: Build and match referral episodes to consultations
- Step 4: Combine all referral types and add Practice ID

A flow diagram representing the pathway to build a referral dataset from line-by-line Medicare data can be seen in Figure 3.

Step 1: Identify GPs in practices

The only information the Department has that links practices and the provider rendering services in each practice is the registration information produced by the Practice Incentive Program (PIP).

As this analysis is specific to practices, the first step is to limit the claims data to GPs attached to a PIP practice. We created a list of GP's in active PIP practices at the end of each quarter of the 2010 calendar year. For each quarters, all specialist, consultant physician, allied health, dental, pathology and diagnostic imaging services referred by GP in the list were extracted and placed in a dataset with the following fields:

- Patient Identification Number (PIN)
- Servicer Provider number
- Service Provider location digit
- Date of Service
- Referring Provider number
- Referring Provider location digit
- Referral Date
- MBS item number

Claims with a service count of less than 1 (adjustment records) were removed.

Step 2: Separate referral types to different datasets

Different types of referrals are treated differently to create a referral episode. This step filters the types of referrals temporarily into three separate datasets.

- **Specialist and consultant physician**:
  Groups A3, A4, A8, A9, A12, A13, A21, A24, A25, A26 (includes consultant physician items in A15)
  Allied health:
  Groups M3, M6, M7, M8, M9, M10, M11
  Dental:
  Groups N1, N2, N3

- **Diagnostic imaging**:
  Category 5 (excludes incentive and modifier items)

- **Pathology**:
  Category 6 (excludes incentive items)

Step 3: Build and match referral episodes to consultations

Specialist, Consultant Physician, Allied Health and Dental professional

For specialist and consultant physician attendances, the GP need only refer the patient once every 12 months. The specialist may then see the patient multiple times within the 12 month period, at their discretion. The key part of the referral is the **first service** that the patient receives from the referred provider. This first referred service from the one referral date is counted as one referral.

The number of subsequent services and total dollar value (in benefits) for the referral episode (set of items originating from the one referral date) are then determined.

In Example 1: Ongoing specialist/consultant physician on page 7, the 28 referred services are aggregated to 2 records, as shown in Table 5.

Table 5: Referred episode example (consultant physician)

Provider Number	Item	Item Description	Date of Service	Referral Date	Referral Length
A	110	Initial Consultant Physician Attendance	2-Mar-10	1-Mar-10	1
B	296	Initial Consultant Psychiatrist to New Patient	13-Apr-10	10-Mar-10	27

We then attach the major specialty of the referred provider to the record. As many specialists and consultant physicians claim the same item numbers, this information is necessary to understand what kind of referred service has been rendered.

Pathology

For pathology referrals, the combination of items requested is important. If the GP requests a collection of tests, retaining information on the whole episode is critical. There are too many pathology items to have one record per item, or to have a separate variable per item. Instead of retaining information about the referred item, frequencies of the number of item for each type of Pathology service (defined using the MBS's inherent grouping) are retained.
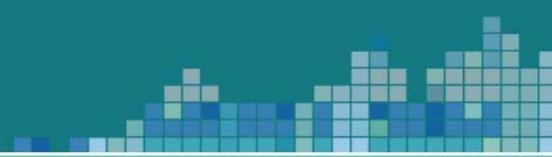
Table 6: Pathology items

Item	Description
P1	Haematology
P2	Chemical
P3	Microbiology
P4	Immunology
P5	Tissue Pathology
P6	Cytology
P7	Genetics
P8	Infertility and Pregnancy Test
P9	Simple basic Pathology Tests

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The number of services and total dollar value (in benefits) for the whole referral episode is then counted.

In addition, if a referred episode involved multiple visits with the pathology provider (rather than multiple services during the one visit) then we need to capture this as well. This information is found by counting the number of days between the first service in the referral and the last service. The number of days, in conjunction with the number of "patient episode initiation" (PEI) items in the referral indicates how many separate visits there are in the referral episode, and the duration of the referral episode.

For example, in Table 3, the 26 referred services will be aggregated down to the following record in Table 7.

Table 7: Referral Example (Pathology)

Provider Number	P1	.....	P10	Referral Time	Date of Service	Referral Date	Referral Length
C	13		13	172	8-Feb-10	5-Feb-10	26

The aggregated line shows that the referral contained 13 separate visits to the pathology provider and the duration from the first to the last visit was 172 days.

Diagnostic Imaging

Diagnostic imaging referrals are treated similarly to pathology referrals, with the diagnostic imaging modality (I group) is used instead of the P group.

Table 8: Diagnostic imaging items

Item	Description
I1	Ultrasound
I2	Computed Tomography
I3	Diagnostic Radiology
I4	Nuclear Medicine
I5	Magnetic Resonance Imaging

Matching referral to Original Consultation

To match a referral to an original consultation, an association between claim records is made. This is done in the same way for all types of referrals:

- Referral patient is the same as the consultation patient and
- Referral date is the same as the consultation date and
- Referral provider is the same as the consultation provider and
- Referral provider location digit is the same as the consultation provider location digit

Where there is more than one originating consultation on the date of referral, the item with the highest schedule fee is used.

Step 4: Combine all referral types and add Practice ID

Once all of the referral episodes have been built, and the attempt to match all to an original consultation has been made, the results are combined into one final dataset. At this stage the Practice ID and Practice location are also attached for each referring provider.

The variables in the final referral table can be categorised by the provider or service they derived from.

Relating to the Parties involved (variables 1 to 7)

- Practice
- Referring provider (ie the GP)
- Referred provider
- Patient

*Relating to the original consultation (variables 8 to 9)*

- Item (if one exists)
- Date

Relating to the referred service/episode (variables 10 to 33)

- Date of first referred service
- Benefits paid for first referred service
- Benefits paid for who episode of referred services
- Number of items in episode and number of date for episode
- Referred item (if specialist, consultant physician or allied health)
- Major specialty of provider of referred service
- Counts of services by P group or modality (if pathology or Diagnostic Imaging)

The schema for the referral table is shown in Table 9.

A flow diagram of the process is illustrated in Figure 3.

Figure 3: Flow diagram for constructing Referrals
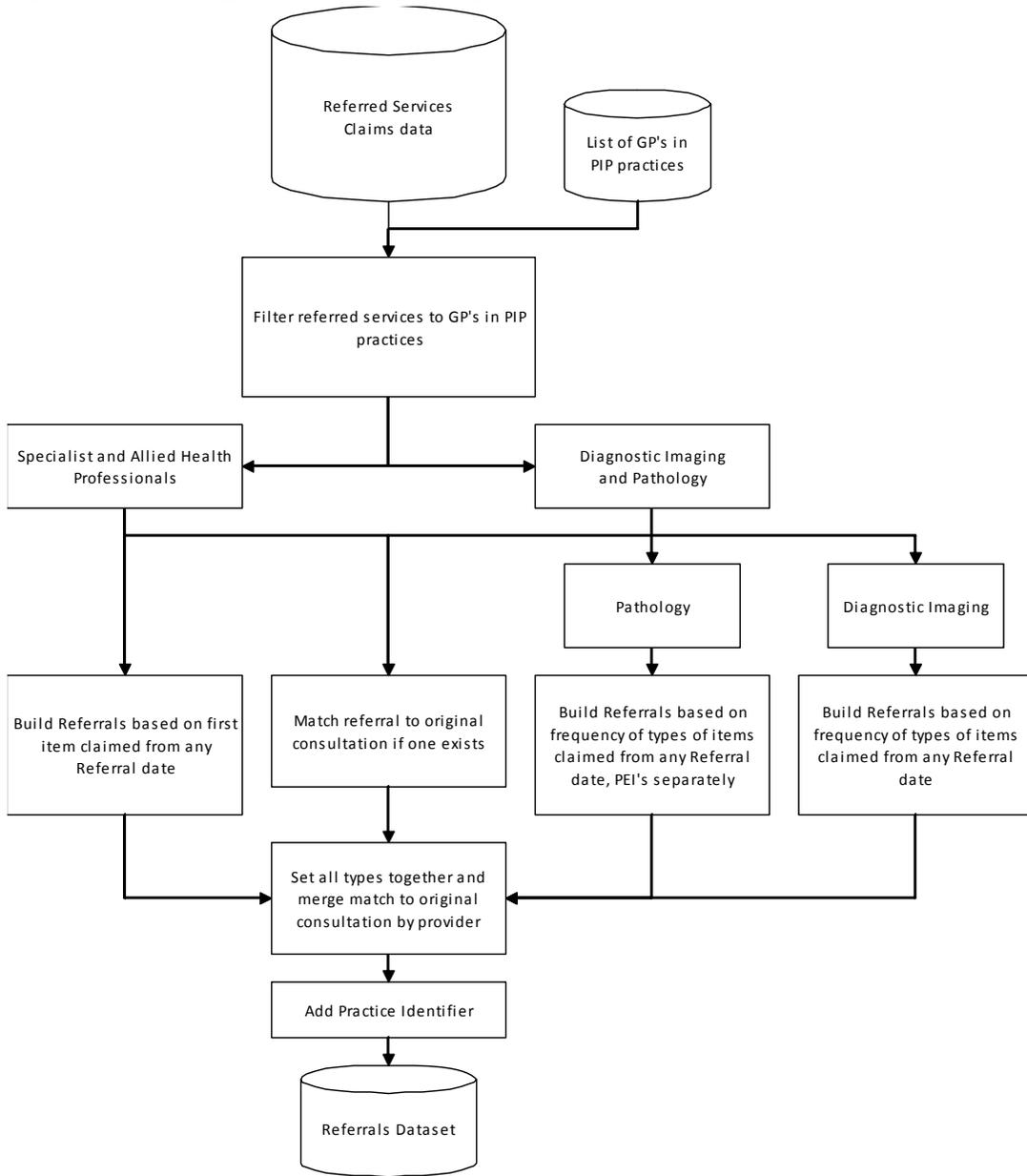
Key:

Data source

Process

Table 9: Schema for referral table

#	Variable	Type	Len	Format	Label
1	PRACID	Char	6		PIP practice id
2	PRAC_LOC	Char	3		PIP prac location id
3	PIN	Char	9		Personal Id Number.
4	RPR	Char	6		Requesting/Referring Provider Number.
5	RPRPRAC	Char	1		REQREF Provider Practice Location.
6	SPR	Char	6		Servicing Provider Number
7	SPRPRAC	Char	1		Servicing Provider Practice Location.
8	RPDATE	Num	4	DATE9.	Date referral was Made
9	ORITEM	Char	5		The original consultation item that lead to the referral. Can be missing if no match was found
10	RFDOS	Num	8	DATE9.	Date of Referred Service
11	RFBEN	Num	8	DOLLAR20.2	Benefit for the initial service in the referral
12	RFBEN_TOTAL	Num	8	DOLLAR20.2	Benefit for the total episode if it contains more than one type of referral
13	RFLEN	Num	8		Number of items in the episode of referral
14	REFTIME	Num	8		Number of days between first and last item in episode
15	RFITEM	Char	5		Item number of referred service (only valid for specialist and allied health referrals)
16	MSP	Char	3		Major specialty of provider rendering the referred service (only valid for specialist and allied health referrals)
17	MSPNM	Char	47		Major specialty name
18	P1	Num	8		Number of P1 Haematology in episode
19	P2	Num	8		Number of P2 Chemical in episode
20	P3	Num	8		Number of P3 Microbiology in episode
21	P4	Num	8		Number of P4 Immunology in episode
22	P5	Num	8		Number of P5 Tissue Pathology in episode
23	P6	Num	8		Number of P6 Cytology in episode
24	P7	Num	8		Number of P7 Genetics in episode
25	P8	Num	8		Number of P8 Infertility and Pregnancy in episode
26	P9	Num	8		Number of P9 Simple Basic in episode
27	P10	Num	8		Number of P10 PEI in episode
28	P11	Num	8		Number of P11 Specimen Referred in episode
39	I1	Num	8		Number of I1 Ultrasound in episode
30	I2	Num	8		Number of I2 Computerised Tomography in episode
31	I3	Num	8		Number of I3 Diagnostic Radiology in episode
32	I4	Num	8		Number of I4 Nuclear Medicine in episode
33	I5	Num	8		Number of I5 MRI in episode

5 Conclusion

Using the methodology described, we have built a dataset with the potential for generation of many further derived variables that will become useful in the project.

This dataset allows us to not only compare referral rates between practices but we will also be able to look at patterns in:

- The providers each practice is referring patients to;
- The distribution of practices total referred services;
- The distribution of practices total referred providers;
- How many patients each practice refers;
- How many providers each practice refers to;
- The type of consultations that are leading to referrals;
- The type of referrals each consultation leads to;
- Categorise referrals based on the original consultation and the referred services.

These are all ideas which can be explored to find a distinguishing factor which indicates the impact of corporate practice on Medicare outlays.

Not all referrals can be matched to consultations. So long as the referring provider has had a consultation with the patient regarding the referred condition, the referral doesn't have to be made at a consultation. The dataset also records these non-consultation referrals.

6 Appendix: MBS notes relating to Referrals

Specialist and Consultant Physician

6.2 What is a Referral

6.2.2 (i)

For a valid "referral" to take place:-

The referring practitioner must have undertaken a professional attendance with the patient and turned his or her mind to the patients need for a referral and communicate relevant information about the patent to the specialist or consultant physician (but this does not necessarily mean an attendance on the occasion of the referral);

Diagnostic Imaging

DID Requests for Diagnostic Imaging

Request requirements

Medicare benefits are not payable for diagnostic imaging services that are classified as R-type (requested) services unless prior to commencing the relevant service, the practitioner receives a signed and dated request from a requesting practitioner who determined the service was necessary.

Before requesting a diagnostic imaging service, the requesting practitioner must turn his or her mind to the clinical relevance of the request and determine that the service is necessary for the appropriate professional care of the patient.

Pathology

P1 Pathology Services in Relation to Medicare Benefits - Outline of Arrangements

P1.1 Basic Requirements

Determination of Necessity of Service:

The treating practitioner must determine that the pathology service is necessary.

The service may only be provided:

In response to a request from the treating practitioner and the request must be in writing (or, if oral, confirmed in writing within fourteen days);

Allied Health

M.3.2 Referral Requirements

Referral form

For Medicare benefits to be payable, the patient must be referred to an eligible allied health professional by their GP using a referral form that has been issued by the Australian Government Department of Health and Ageing or a form that contains all the components of this form.

Medicare benefits are available for up to five allied health services per patient per calendar year. If a patient has not used all of their allied health services under a referral in a calendar year, it is not necessary to obtain a new referral for the "unused" services. However, any "unused" services received from 1 January in the following year under that referral will count as part of the total of five services for which the patient is eligible in that calendar year.

When patients have used all of their referred services, or require a referral for a different type of allied health service recommended in their CDM plan/s, they will need to obtain a new referral from their GP. GPs may choose to use this visit to undertake a review of the patient's CDM plan/s or, where appropriate, to manage the process using a GP consultation item.

It is not necessary to have a new CDM plan/s prepared each calendar year in order to access a new referral/s for eligible allied health services. Patients continue to be eligible for rebates for allied health services while they are being managed under the prerequisite CDM items as long as the need for eligible services continues to be recommended in their plan. However, regular reviews using MBS item 732 are encouraged.

Allied Mental Health

M.6.3 Referral Requirements (Psychological Therapy)

Referrals

Patients must be referred for psychological therapy services by a GP managing the patient under a GP Mental Health Treatment Plan (item 2710); or a referred psychiatrist assessment and management plan (item 291).

Referring practitioners are not required to use a specific form to refer patients for these services. The referral may be a letter or note to an eligible clinical psychologist signed and dated by the referring practitioner.

Referral validity

Medicare benefits are available for up to twelve (12) individual (up to 18 services where exceptional circumstances apply) and/or twelve (12) group psychological therapy services and/or focussed psychological strategies services per patient per calendar year.

If a patient has not used all of their psychological therapy services and/or focussed psychological strategies services under a referral in a calendar year, it is not necessary to obtain a new referral for the "unused" services. However, any "unused" services receive d from 1 January in the following year under that referral will count as part of the total of twelve services for which the patient is eligible in that calendar year.

When patients have used all of their referred services they will need to obtain a new referral from the referring practitioner if they are eligible for further services. Where the patient's care is being managed by a GP, the GP may choose to use this visit to undertake a review of the patient's GP Mental Health Treatment Plan and/or psychiatrist assessment and management plan.

It is not necessary to have a new GP Mental Health Treatment Plan and/or psychiatrist assessment and management plan prepared each calendar year in order to access a new referral(s) for eligible psychological therapy services and/or focussed psychological strategies services. Patients continue to be eligible for rebates for psychological therapy services and/or focussed psychological strategies services while they are being managed under a GP Mental Health Treatment Plan and/or a psychiatrist assessment and management plan as long as the need for eligible services continues to be recommended in their plan.

Allied Mental Health

M.7.3 Referral Requirements (Focussed Psychological Strategies)

Referrals

As per 6.3

Dental

N.1.3 Which patients are eligible for dental services?

It is up to the GP to determine whether a patient is eligible for referral to a dental practitioner with reference to the following criteria.

<u>Firstly</u>, a person must:

- have a chronic medical condition and complex care needs (see below for more information); and
- their oral health must also be impacting on, or likely to impact on, their general health.

In practice, this means that the patient must have received the following GP care planning services in the last two years:

- a GP Management Plan (Medicare item 721 or 725); and
- Team Care Arrangements (Medicare item 723 or 727).

Residents of aged care facilities can also be referred for dental services under Medicare. For these patients, the GP must have contributed to or reviewed a multidisciplinary care plan prepared for the resident by the aged care facility (Medicare item 731) in the last two years.

<u>Secondly</u>, the patient's GP must refer the patient initially to a dentist or dental prosthetist. There is a referral form for the GP to use when referring a patient to a dental practitioner.

In most cases, the patient will be referred to a dentist in the first instance. In some limited cases, the GP may refer the patient directly to a dental prosthetist. This can be done where the patient has no natural teeth and requires dental prosthetic services only (eg full dentures) or requires repairs or maintenance for either full or partial dentures.

A dentist may subsequently refer a patient to another dentist, dental specialist or dental prosthetist. However, a patient cannot be referred directly to a dental specialist by a GP.