

**Patient Pathways Telehealth Nurse Service** 

# **ALL PARTNER ORGANISATIONS**

**Evaluation, November 2021** 

| Introduction & Evaluation Approach |
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| Patient Pathways Evaluation 2021   |

## Background

The Centre for Community-Driven Research (CCDR) is a non-profit organisation established in Australia in 2012. It was developed to take a systematic approach to engaging patients in decisions about health and to develop community-based health services.

The Patient Pathways telehealth nurse program was announced by the Hon Greg Hunt MP, Member for Flinders, Minister for Health in 2019. Funding was provided to CCDR to be distributed amongst patient organisations through a transparent and independent grant process.

The initiative places specialist telehealth nurses in community organisations.

"This support will connect patients with specialist care, homecare services or mental health support and open up opportunities to participate in and clinical trials."

"The aim is to ensure people who are in need of support get fast, expert advice tailored to their particular circumstances in a co-ordinated way. Patient organisations will be identified through a grant round and the result of the pilot will inform future work or expanded roll out."

Hon Greg Hunt MP, Member for Flinders, Minister for Health. January 2019 program announcement.

Patient pathways provides a remote clinic that can be inclusive of families, carers, and patients wherever they live. For families that live long distances, they are able to provide support for the patient, and become informed without the need and expense of travelling. All of the Patient Pathways nurses are located in metropolitan areas yet were able to consult with patients living in all areas, including regional or remote areas, without any of these patients having to leave their home, or paying any costs associated with travel and accommodation to access health services.

## Challenges being addressed and opportunities

Australia has an excellent health system and patients are offered exceptional treatment, care, support and opportunities to participate in medical research. However, with so much to offer comes complexity, difficulty in navigating the health system, and challenges knowing about and accessing existing services, which can result in a decreased level of satisfaction with the health system. In addition, with an ever-evolving clinical trial environment and new technologies emerging, we need to create systems that can adapt and keep up to date with these opportunities, while supporting patients and their families. The first point of call for many patients when they are diagnosed with a condition is to go to local non-profit organisations for information and support. The Patient Pathways initiative aims to make the most of this relationship by establishing a central point of contact within non-profit organisations - a specialist, Patient Pathways nurse — to help patients and their families access existing services and connect them with opportunities to participate in medical research and patient feedback initiatives. This is also an opportunity to reduce duplication between patient organisations and forge collaboration across the health sector.

## Patient Pathways Program (Telehealth Nurse Pilot)

Many patient organisations have a point of contact, however the way that this is implemented varies from a helpline providing information only, to a structure telehealth system connecting patients with health services, local support and medical research. The pilot project will aim to set standards and a baseline in the way that patient organisations offer support, thereby building capacity within the health sector. CCDR have tested and implemented a Patient Pathways model that can be adapted across disease areas for this pilot project. The aim will be to implement the Patient Pathways model across a minimum of 11 disease types over three years. We will also take this opportunity to not only support patients and their families but also implement a system to encourage community engagement and feedback in health and research.

## **Purpose of the Pilot**

The aim of the Pilot is to increase the capacity of patient organisations to support patients to navigate the health system and access all that is available to them, including clinical trials. If we are able to demonstrate a significant and positive impact, this increases the potential to make this type of service – through patient organisations – available to all patients in Australia, across all disease areas.

## **Partner organisations**

MDDA - Metabolic Dietary Disorders Association

Mito Foundation (Mitochondrial disease)

Maddie Riewoldt's Vision (Bone Marrow Failure Syndromes)

Crohn's & Colitis Australia

**Eating Disorders Victoria** 

Emerge Australia (Myalgic encephalomyelitis/Chronic Fatigue Syndrome)

**Tuberous Sclerosis Australia** 

Save Our Sons Duchenne Foundation (Duchenne and Becker Muscular Dystrophy)

Genetic, Rare and Complex Disease: Five partner organisations including Genetic Alliance Australia, Syndromes Without

A Name, Genetic and Rare Disease Network, the Genetic Support Network Victoria and CCDR

Cerebral Palsy Support Network

Pancare Foundation (Pancreatic cancer)

Liver Cancer Support Australia

Ehlers-Danlos Syndrome Australia

NMOSD Australia

## Through the program:

- Organisations are provided with support from CCDR to establish a telehealth case management service that is relevant to the disease or condition that your organisation focuses on
- Nurses are supported with ongoing education, training and peer support opportunities through a Telehealth Nurse Network
- CCDR collect data throughout the Pilot and produce annual impact reports for all partner organisations

### **Project management**

Having central program support through CCDR has proven to be effective in both cost and program cohesion. There is a constant stream of support needed to maintain a consistent data set and ongoing support and oversight to the 11 nurses working in the program. Nurses are offered weekly, group case discussions and in-service opportunities. Case discussions are a professional development opportunity to share resources and discuss best-practice in telehealth nursing. It is also an important part of maintaining mental health as nurses offer each other peer support. There were also two, monthly clinical supervision opportunities between March and October (total of 16 sessions available).

In addition, there were four in-service opportunities in relation to clinical trials, genetic counselling, COVID-19 and access to services, and individual professional reflection interviews with each nurse (equalling one hour of CPD per session).

Some of the benefits of having an organisation like CCDR managing aspects of the service include;

- -ongoing support and training of nurses through regular meetings, which include case management presentations, discussing/problem solving difficult cases, sharing success/failures and tips on attracting new patients to the service.
- -independent review of each service (like this report), giving each organisation feedback on how their service is going
- -Advertising the service using CCDRs relationships with patient organisations and national clinician network

# Acknowledgements

Patient Pathways is being funded by the Australian Department of Health

### **Ethics information**

The University of Sydney Human Research Ethics Committee (HREC)

Project No.: 2019/762

Project Title: Quality assurance of a nurse-led telehealth

case management service

## **Evaluation**

The areas of evaluation were published and provided to all partner organisations at the commencement of the program. Table A below provides an overview of the evaluation fields and rationale for inclusion.

## **Additional information**

For more information about Patient Pathways contact Kate Holliday holliday@cc-dr.org

# Part 1: Demographics

### **Consultation with**

Since the commencement of the program, 2,336 people have accessed the Patient Pathways telehealth service from August 2019 to the end of October 2021. The majority of people were patients (n=1318, 56.42%) followed by next of kin/legal guardians (n=530, 22.69%).

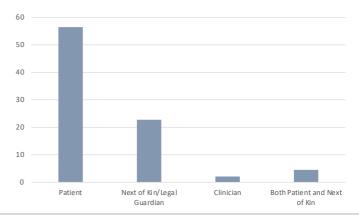


Table 1: Consultation with

Figure 1.1: Consultation with (% of all people accessing Patient Pathways)

| Consultation with                | 2020   |         | 2021   |         | Total program |         |
|----------------------------------|--------|---------|--------|---------|---------------|---------|
|                                  | n=1245 | Percent | n=1091 | Percent | n=2336        | Percent |
| Patient                          | 705    | 56.63   | 613    | 56.19   | 1318          | 56.42   |
| Next of Kin/Legal Guardian       | 321    | 25.78   | 209    | 19.16   | 530           | 22.69   |
| Clinician                        | 38     | 3.05    | 10     | 0.92    | 48            | 2.05    |
| Both Patient and Next of Kin     | 61     | 4.90    | 45     | 4.12    | 106           | 4.54    |
| Consultation with not identified | 120    | 9.64    | 214    | 19.62   | 334           | 14.30   |

# Age

The ages represented in table 1.2 and figure 1.2 are those of the patient (rather than the next of kin/guardian where applicable). The majority of patients accessing the Patient Pathways telehealth service were aged between 25 and 54 years of age (n=962, 41.18%). There were 360 (15.41%) patients under 18 years of age, 252 (10.79%) patients aged 55 to 64 years of age and 199 (8.52%) patients aged 18 to 24 years of age.

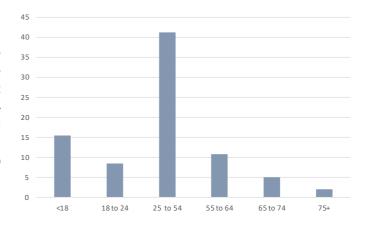


Table 1.2: Age

Figure 1.2: Age (% of all people accessing Patient Pathways)

| Age                | 2020   |         | 2021   |         | Total program |         |
|--------------------|--------|---------|--------|---------|---------------|---------|
|                    | n=1245 | Percent | n=1091 | Percent | n=2336        | Percent |
| <18                | 180    | 14.46   | 180    | 16.50   | 360           | 15.41   |
| 18 to 24           | 91     | 7.31    | 108    | 9.90    | 199           | 8.52    |
| 25 to 54           | 428    | 34.38   | 534    | 48.95   | 962           | 41.18   |
| 55 to 64           | 128    | 10.28   | 124    | 11.37   | 252           | 10.79   |
| 65 to 74           | 78     | 6.27    | 40     | 3.67    | 118           | 5.05    |
| 75+                | 26     | 2.09    | 22     | 2.02    | 48            | 2.05    |
| Age not identified | 314    | 25.22   | 83     | 7.61    | 397           | 16.99   |

### Gender

The majority of people accessing the Patient Pathways telehealth service were female (n=1568, 67.12%), with 615 (26.33%) men and a small number of people who were intersex, transgender or non-binary.

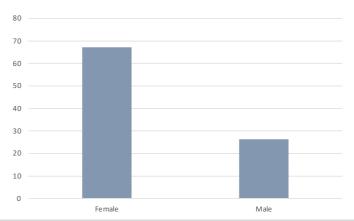


Figure 1.3: Gender (% of all people accessing Patient Pathways)

Table 1.3: Gender

| Gender                    | 2020   |         | 2021   |         | Total program |         |
|---------------------------|--------|---------|--------|---------|---------------|---------|
|                           | n=1245 | Percent | n=1091 | Percent | n=2336        | Percent |
| Female                    | 799    | 64.18   | 769    | 70.49   | 1568          | 67.12   |
| Male                      | 343    | 27.55   | 272    | 24.93   | 615           | 26.33   |
| Non-binary                | 6      | 0.48    | 3      | 0.27    | 9             | 0.39    |
| Does not wish to disclose | 1      | 0.08    | 6      | 0.55    | 7             | 0.30    |
| Transgender               | 2      | 0.16    | 3      | 0.27    | 5             | 0.21    |
| Gender not identified     | 94     | 7.55    | 38     | 3.48    | 132           | 5.65    |

## Home status

A home status assessment refers to the Patient Pathways telehealth nurse asking the patient questions about their family composition and whether they have dependents in their household. This allows for nurse-led interventions such as providing support for other family members or respite for the primary carer.

There were 826 (35.36%) people who lived in a family home without dependents, 545 (23.33%) that lived in a family home with children and 325 (13.91%) people that lived alone.

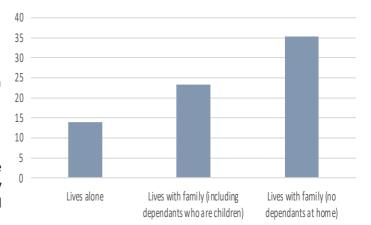


Table 1.4: Home status

Figure 1.4: Home status (% of all people accessing Patient Pathways)

| Home status                         | 2020   |         | 2021   |         | Total program |         |
|-------------------------------------|--------|---------|--------|---------|---------------|---------|
|                                     | n=1245 | Percent | n=1091 | Percent | n=2336        | Percent |
| Lives alone                         | 150    | 12.05   | 175    | 16.04   | 325           | 13.91   |
| Lives with family (including        | 12     | 0.96    | 4      | 0.37    | 16            | 0.68    |
| Lives with family (including        | 333    | 26.75   | 212    | 19.43   | 545           | 23.33   |
| Lives with family (including        | 18     | 1.45    | 1      | 0.09    | 19            | 0.81    |
| Lives with family (no dependants at | 336    | 26.99   | 490    | 44.91   | 826           | 35.36   |
| Other                               | 102    | 8.19    | 22     | 2.02    | 124           | 5.31    |
| Home status not assessed            | 294    | 23.61   | 187    | 17.14   | 481           | 20.59   |

# Point that patient joined service

The majority of people joined the Patient Pathways telehealth nurse service while undergoing ongoing management for their condition, including active treatment (n=1190, 50.94%). This was followed by people that were newly diagnosed (n=339, 14.51%).

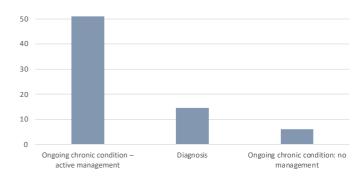


Table 1.5: Point that patient joined service

Figure 1.5: Point that patient joined service (% of all people accessing Patient Pathways)

| Point in patient pathways that     | 2020   |         | 2021   |         | Total program |         |
|------------------------------------|--------|---------|--------|---------|---------------|---------|
| patient joined service             | n=1245 | Percent | n=1091 | Percent | n=2336        | Percent |
| Diagnosis                          | 85     | 6.83    | 254    | 23.28   | 339           | 14.51   |
| Pre-treatment                      | 30     | 2.41    | 5      | 0.46    | 35            | 1.50    |
| Maintenance post primary treatment | 32     | 2.57    | 23     | 2.11    | 55            | 2.35    |
| Ongoing chronic condition – active | 625    | 50.20   | 565    | 51.79   | 1190          | 50.94   |
| Ongoing chronic condition: no      | 83     | 6.67    | 58     | 5.32    | 141           | 6.04    |
| Recurrence - with treatment        | 8      | 0.64    | 0      | 0.00    | 8             | 0.34    |
| Recurrence - no treatment          | 8      | 0.64    | 2      | 0.18    | 10            | 0.43    |
| Palliative                         | 22     | 1.77    | 2      | 0.18    | 24            | 1.03    |
| Other                              | 19     | 1.53    | 11     | 1.01    | 30            | 1.28    |
| Point in pathway not assessed      | 333    | 26.75   | 171    | 15.67   | 504           | 21.58   |

# **Diagnosis**

There were a total of 2,336 people accessing the Patient Pathways telehealth service across 10 broad disease areas. The most patients accessing the service had myalgic encephalomyelitis (n=766, 32.79%) followed by Complex, rare and genetic conditions (n=374, 16.015) and this includes rare oncology.

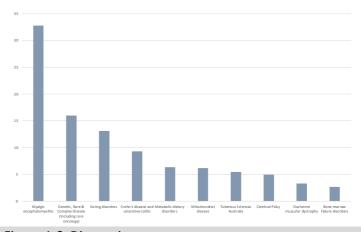


Table 1.6: Diagnosis

Figure 1.6: Diagnosis (% of all people accessing Patient Pathways)

| Diagnosis                              | 20     | 20      | 2021   |         | Total program |         |
|--|--------|---------|--------|---------|---------------|---------|
|  | n=1245 | Percent | n=1091 | Percent | n=2336        | Percent |
| Bone marrow failure disorders          | 49     | 3.94    | 13     | 1.19    | 62            | 2.65    |
| Cerebral Palsy                         | 66     | 5.30    | 49     | 4.49    | 115           | 4.92    |
| Crohn's disease and ulcerative colitis | 128    | 10.28   | 89     | 8.16    | 217           | 9.29    |
| Duchenne muscular dystrophy            | 60     | 4.82    | 17     | 1.56    | 77            | 3.30    |
| Eating disorders                       | 225    | 18.07   | 81     | 7.42    | 306           | 13.10   |
| Genetic, Rare & Complex Disease        | 180    | 14.46   | 194    | 17.78   | 374           | 16.01   |
| Metabolic dietary disorders            | 92     | 7.39    | 56     | 5.13    | 148           | 6.34    |
| Mitochondrial disease                  | 90     | 7.23    | 54     | 4.95    | 144           | 6.16    |
| Myalgic encephalomyelitis              | 261    | 20.96   | 505    | 46.29   | 766           | 32.79   |
| Tuberous Sclerosis Australia           | 94     | 7.55    | 33     | 3.02    | 127           | 5.44    |

# **Ethnicity**

The majority of people accessing the Patient Pathways telehealth service were caucasian (n=2068, 88.53%). There were 98 (4.20%) people that did not wish to disclose their ethnicity.

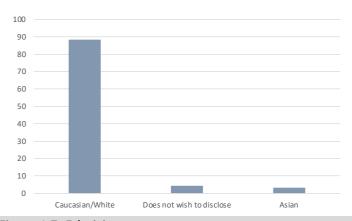


Table 1.7: Ethnicity

Figure 1.7: Ethnicity
(% of all people accessing Patient Pathways)

| Ethnicity                 | 2020   |         | 2021   |         | Total program |         |
|---------------------------|--------|---------|--------|---------|---------------|---------|
|                           | n=1245 | Percent | n=1091 | Percent | n=2336        | Percent |
| Caucasian/White           | 1121   | 58.15   | 947    | 86.80   | 2068          | 88.53   |
| Does not wish to disclose | 34     | 2.73    | 64     | 5.87    | 98            | 4.20    |
| Asian                     | 38     | 3.05    | 39     | 3.57    | 77            | 3.30    |
| Other                     | 16     | 1.29    | 16     | 1.47    | 32            | 1.37    |
| ATSI                      | 14     | 1.12    | 8      | 0.73    | 22            | 0.94    |
| Pacific Islander          | 6      | 0.48    | 7      | 0.64    | 13            | 0.56    |
| African                   | 7      | 0.56    | 4      | 0.37    | 11            | 0.47    |
| Arab                      | 4      | 0.32    | 4      | 0.37    | 8             | 0.34    |
| Hispanic/Latino           | 5      | 0.40    | 2      | 0.18    | 7             | 0.30    |

# Other languages spoken

The majority of people accessing the Patient Pathways telehealth nurse service did not speak another language (n=2252, 96.40%). Mandarin was the most common second language spoken (n=15, 0.96%).

Table 1.8: Other languages spoken

| Other languages spoken | 20     | 20      | 20     | 21      | Total program |         |
|------------------------|--------|---------|--------|---------|---------------|---------|
|                        | n=1245 | Percent | n=1091 | Percent | n=2336        | Percent |
| African dialect        | 2      | 0.16    | 1      | 0.09    | 3             | 0.13    |
| Arabic                 | 6      | 0.48    | 0      | 0.00    | 6             | 0.26    |
| Cantonese              | 2      | 0.16    | 1      | 0.09    | 3             | 0.13    |
| Filipino               | 2      | 0.16    | 0      | 0.00    | 2             | 0.09    |
| French                 | 2      | 0.16    | 1      | 0.09    | 3             | 0.13    |
| German                 | 3      | 0.24    | 2      | 0.18    | 5             | 0.21    |
| Greek                  | 5      | 0.40    | 2      | 0.18    | 7             | 0.30    |
| Hebrew                 | 2      | 0.16    | 0      | 0.00    | 2             | 0.09    |
| Hindi                  | 2      | 0.16    | 1      | 0.09    | 3             | 0.13    |
| Italian                | 4      | 0.32    | 3      | 0.27    | 7             | 0.30    |
| Mandarin               | 12     | 0.96    | 3      | 0.27    | 15            | 0.64    |
| Punjabi                | 3      | 0.24    | 0      | 0.00    | 3             | 0.13    |
| Russian                | 1      | 0.08    | 0      | 0.00    | 1             | 0.04    |
| Serbian                | 2      | 0.16    | 0      | 0.00    | 2             | 0.09    |
| Spanish                | 1      | 0.08    | 2      | 0.18    | 3             | 0.13    |
| Non-verbal/Auslan      | 6      | 0.48    | 0      | 0.00    | 6             | 0.26    |
| No other languages     | 1190   | 95.58   | 1062   | 97.34   | 2252          | 96.40   |
| Other languages spoken |        |         | 13     | 1.19    | 13            | 0.56    |

## State

The majority of people accessing the Patient Pathways telehealth service were from Victoria (n=962, 41.18%). This is in part due to a number of Victorian-based organisations. There were 457 (19.56%) people from New South Wales, 348 (14.90%) from Queensland and 145 (6..21%) from Western Australia.

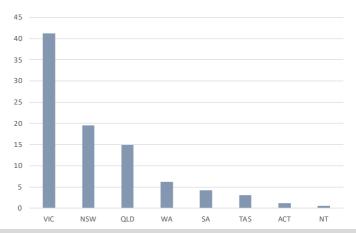


Table 1.9: State

Figure 1.9: State (% of all people accessing Patient Pathways)

| State                | 2020   |         | 2021   |         | Total program |         |
|----------------------|--------|---------|--------|---------|---------------|---------|
|                      | n=1245 | Percent | n=1091 | Percent | n=2336        | Percent |
| VIC                  | 548    | 44.02   | 414    | 37.95   | 962           | 41.18   |
| NSW                  | 232    | 18.63   | 225    | 20.62   | 457           | 19.56   |
| QLD                  | 151    | 12.13   | 197    | 18.06   | 348           | 14.90   |
| State not identified | 138    | 11.08   | 77     | 7.06    | 215           | 9.20    |
| WA                   | 84     | 6.75    | 61     | 5.59    | 145           | 6.21    |
| SA                   | 44     | 3.53    | 55     | 5.04    | 99            | 4.24    |
| TAS                  | 34     | 2.73    | 37     | 3.39    | 71            | 3.04    |
| ACT                  | 13     | 1.04    | 14     | 1.28    | 27            | 1.16    |
| NT                   | 1      | 0.08    | 11     | 1.01    | 12            | 0.51    |

# Region

The location of patients was evaluated by postcode using the Australian Statistical Geography Maps (ASGS) Remoteness areas accessed from the Australian Bureau of Statistics<sup>1</sup>. The majority of patients came from major cities (n=1272, 54.45%), with 503 (21.53%) coming from regional Australia.

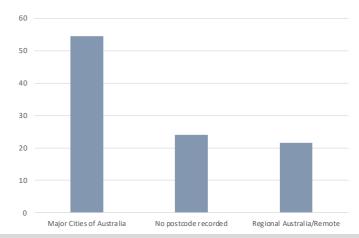


Table 1.10: Region

Figure 1.10: Region (% of all people accessing Patient Pathways)

| Region                    | 2020   |         | 20     | 21      | Total program |         |
|---------------------------|--------|---------|--------|---------|---------------|---------|
|                           | n=1245 | Percent | n=1091 | Percent | n=2336        | Percent |
| Major Cities of Australia | 631    | 50.68   | 6.41   | 58.75   | 1272          | 54.45   |
| Major Cities of Australia |        |         | 641    |         |               |         |
| No postcode recorded      | 371    | 29.80   | 190    | 17.42   | 561           | 24.02   |
| Regional Australia/Remote | 243    | 19.52   | 260    | 23.83   | 503           | 21.53   |

#### Socioeconomic status

Socio-economic status was evaluated by postcode using the Socio-economic Indexes for Areas (SEIFA) accessed from the Australian Bureau of Statistics. A higher score indicates higher socioeconomic status. Within this evaluation, a score of 1 to 6 is considered low to medium SEIFA and 7 to 10, high SEIFA.

There were 831 (35.57%) people coming from low to medium socioeconomic areas and 944 (40.41%) people coming from higher socioeconomic areas.<sup>2</sup>

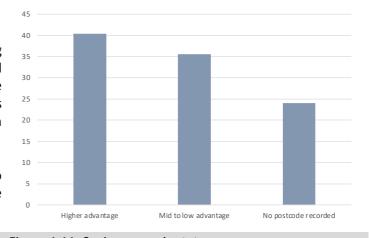


Table 1.11: Socioeconomic status

Figure 1.11: Socioeconomic status (% of all people accessing Patient Pathways)

| Socioeconomic status | 20     | 20      | 20     | 21      | Total p | rogram  |
|----------------------|--------|---------|--------|---------|---------|---------|
|                      | n=1245 | Percent | n=1091 | Percent | n=2336  | Percent |
|                      |        |         |        |         |         |         |
| Higher advantage     | 457    | 36.71   | 487    | 44.64   | 944     | 40.41   |
| Mid to low advantage | 417    | 33.49   | 414    | 37.95   | 831     | 35.57   |
| No postcode recorded | 371    | 29.80   | 190    | 17.42   | 561     | 24.02   |

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<sup>&</sup>lt;sup>1</sup> Australian Bureau of Statistics 2016, Australian Statistical Geography Standard (ASGS): Volume 5 - Remoteness Structure, July 2016, 'Correspondence, 2017 Postcode to 2016 Remoteness Area', data cube: Excel spreadsheet, cat. no.1270.0.55.005

<sup>&</sup>lt;sup>2</sup> Australian Bureau of Statistics, 2016, Census of Population and Housing: Socio-Economic Indexes for Areas

## Access to healthcare

Access to healthcare refers to the length of time it takes patients to access their primary place of treatment or therapy, which may include a general practitioner. There were 572 (24.49%) people who were able to access care within 30 minutes. There were 457 (19.56%) people needing to travel up to 60 minutes and 135 (5.78%) needing to travel more than 90 minutes or more.

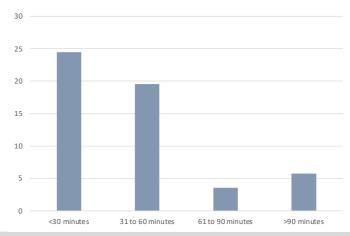


Table 1.12: Access to healthcare

Figure 1.12: Access to healthcare (% of all people accessing Patient Pathways)

| Access to treatment (Time to travel) | 2020   |         | 2021   |         | Total program |         |
|--------------------------------------|--------|---------|--------|---------|---------------|---------|
|                                      | n=1245 | Percent | n=1091 | Percent | n=2336        | Percent |
|                                      |        |         |        |         |               |         |
| <30 minutes                          | 283    | 22.73   | 289    | 26.49   | 572           | 24.49   |
| 31 to 60 minutes                     | 261    | 20.96   | 196    | 17.97   | 457           | 19.56   |
| 61 to 90 minutes                     | 51     | 4.10    | 32     | 2.93    | 83            | 3.55    |
| >90 minutes                          | 80     | 6.43    | 55     | 5.04    | 135           | 5.78    |
| N/A (No treatment)                   | 155    | 12.45   | 291    | 26.67   | 446           | 19.09   |
| Access to treatment not assessed     | 415    | 33.33   | 228    | 20.90   | 643           | 27.53   |

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|--------------------------------|----|--|--|

**Part 2: Consultation information** 

# **Referred from**

Partner organisations employ a range of strategies to reach out to their communities and promote the Patient Pathways telehealth service. The majority of patients found the service through their local patient organisation website (n=1024, 43.84%). This was followed by a referrals from internal programs or support groups (n=509, 21.79%) and health professional referrals (n=273, 11.69%).

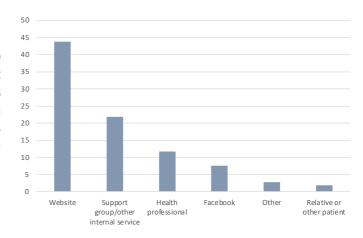


Table 2.1: Referred from

Figure 2.1: Referred from (% of all people accessing Patient Pathways)

| Referral source                      | 2020   |         | 20     | 21      | Total program |         |
|--------------------------------------|--------|---------|--------|---------|---------------|---------|
|                                      | n=1245 | Percent | n=1091 | Percent | n=2336        | Percent |
| Website                              | 512    | 41.12   | 512    | 46.93   | 1024          | 43.84   |
| Support group/other internal service | 233    | 18.71   | 276    | 25.30   | 509           | 21.79   |
| Health professional                  | 149    | 11.97   | 124    | 11.37   | 273           | 11.69   |
| Facebook                             | 122    | 9.80    | 56     | 5.13    | 178           | 7.62    |
| Other                                | 14     | 1.12    | 51     | 4.67    | 65            | 2.78    |
| Relative or other patient            | 7      | 0.56    | 35     | 3.21    | 42            | 1.80    |
| Referral source not identified       | 208    | 16.71   | 37     | 3.39    | 245           | 10.49   |

# Initial consultations timing by quarter

The Patient Pathways telehealth service commenced in August 2019 following the program announcement in January 2019, a formal grant round to award funding and selection of partner organisation in April 2019. This was followed by a period of recruitment to select the nurses that would work on the program.

As a new program and new service, it was anticipated that it would take time to reach a steady intake of patients. Over the quarters, it is clear that the number of patients accessing the service is increasing over time, with a constistant flow of patients across each quarter in 2021.

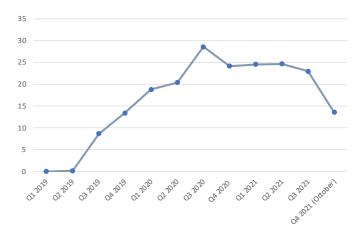


Table 2.2: Initial consultations timing by quarter

Figure 2.2: Initial consultations timing by quarter (% of all people accessing Patient Pathways)

| Timing by quarter      | 2020   |         | 2021                            |         |  |  |
|------------------------|--------|---------|---------------------------------|---------|--|--|
|                        | n=1245 | Percent | n=1091                          | Percent |  |  |
| Q1 2019                | 0      | N/A     | Q4 2020 (November and December) | 155     |  |  |
| Q2 2019                | 2      | N/A     | Q1 2021                         | 268     |  |  |
| Q3 2019                | 108    | 8.67    | Q2 2021                         | 269     |  |  |
| Q4 2019                | 167    | 13.41   | Q3 2021                         | 251     |  |  |
| Q1 2020                | 234    | 18.80   | Q4 2021 (October)               | 148     |  |  |
| Q2 2020                | 254    | 20.40   |                                 |         |  |  |
| Q3 2020                | 356    | 28.59   |                                 |         |  |  |
| Q4 2020 (October only) | 124    | 9.96    |                                 |         |  |  |

### **Duration of initial consultation**

The Patient Pathways telehealth services delivers case management and nurses aim to create - with the patient - a holistic care plan, utilising services available within the health system. The relationship with the patient begins with an initial consultation and there is usually then follow-up activities that the nurse conducts following the initial consultation. In general, the more thorough the initial consultation is, the less subsequent follow-up is needed.

The majority of initial consultation took leass than 30 minutes (n=589, 25.21%). There were 385 consults (16.48%) that took 60 minutes, 347 (14.85%) that took 30 minutes and 340 (14.55%) taking 90 minutes or more. Initial follow-up at the point of consultation most commonly took 60 minutes (25.90%) or under 30 minutes (n=584, 25.00%).

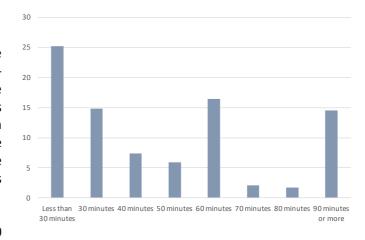


Table 2.3: Duration of initial consultation

Figure 2.3: Duration of initial consultation (% of all people accessing Patient Pathways)

| Length of time per initial consultation | 2020   |         | 2021   |         | Total program |         |
|---|--------|---------|--------|---------|---------------|---------|
|   | n=1245 | Percent | n=1091 | Percent | n=2336        | Percent |
| Less than 30 minutes                    | 157    | 12.61   | 432    | 39.60   | 589           | 25.21   |
| 30 minutes                              | 142    | 11.41   | 205    | 18.79   | 347           | 14.85   |
| 40 minutes                              | 62     | 4.98    | 110    | 10.08   | 172           | 7.36    |
| 50 minutes                              | 120    | 9.64    | 19     | 1.74    | 139           | 5.95    |
| 60 minutes                              | 285    | 22.89   | 100    | 9.17    | 385           | 16.48   |
| 70 minutes                              | 31     | 2.49    | 18     | 1.65    | 49            | 2.10    |
| 80 minutes                              | 29     | 2.33    | 11     | 1.01    | 40            | 1.71    |
| 90 minutes or more                      | 209    | 16.79   | 131    | 12.01   | 340           | 14.55   |
| Length of consultation not recorded     | 210    | 16.87   | 65     | 5.96    | 275           | 11.77   |

# Follow up at initial consultation duration

In addition to the initial consultation and follow-up, there is sometimes a need for subsequent follow-up. Across all patients, the average time per patient in initial and subsequent calls and follow-up was 1.61 hours. The average hourly rate for nurses in the Patient Pathways telehealth service was \$41.67. With an average time per patient of 1.61 hours, this results in an average cost per patient of \$67.37.

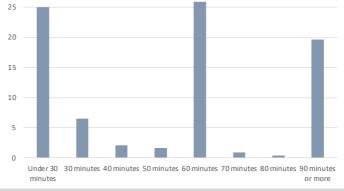


Table 2.4: Follow up for initial consultation duration

Figure 2.5: Follow up for initial consultation duration (% of all people accessing Patient Pathways)

| Length of follow up | 2020   | 2020    |        | 2021    |        | rogram  |
|---------------------|--------|---------|--------|---------|--------|---------|
|                     | n=1245 | Percent | n=1091 | Percent | n=2336 | Percent |
| Under 30 minutes    | 94     | 7.55    | 490    | 44.91   | 584    | 25.00   |
| 30 minutes          | 112    | 9.00    | 40     | 3.67    | 152    | 6.51    |
| 40 minutes          | 35     | 2.81    | 14     | 1.28    | 49     | 2.10    |
| 50 minutes          | 31     | 2.49    | 8      | 0.73    | 39     | 1.67    |
| 60 minutes          | 326    | 26.18   | 279    | 25.57   | 605    | 25.90   |
| 70 minutes          | 15     | 1.20    | 7      | 0.64    | 22     | 0.94    |
| 80 minutes          | 5      | 0.40    | 4      | 0.37    | 9      | 0.39    |
| 90 minutes or more  | 315    | 25.30   | 144    | 13.20   | 459    | 19.65   |
| No time recorded    | 312    | 25.06   | 105    | 9.62    | 417    | 17.85   |

| Part 3: Nurse-led interventions and activities |  |  |  |  |  |  |
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| Patient Pathways Evaluation 2021               |  |  |  |  |  |  |

### **GP** status

Understanding whether the patient has a regular general practitioner is an important assessment. It allows the telehealth nurse to respond with interventions to ensure the patient has access to appropriate primary care. The majority of patients had a regular general practitioner (n=1680, 71.92%) with 95 (4.07%) that did not and 82 (3.51%) that indicated that they would like a referral.

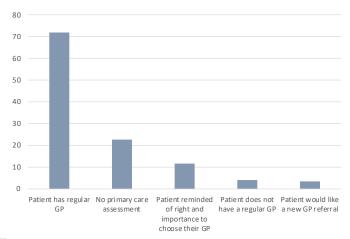


Table 3.1: GP status Figure 3.1: GP status (of all people accessing Patient Pathways)

| GP status   | 20     | 2020    |        | 2021    |        | rogram  |
|---|--------|---------|--------|---------|--------|---------|
|   | n=1245 | Percent | n=1091 | Percent | n=2336 | Percent |
| Patient does not have a regular GP                          | 65     | 5.22    | 30     | 2.75    | 95     | 4.07    |
| Patient has regular GP                                      | 780    | 62.65   | 900    | 82.49   | 1680   | 71.92   |
| Patient would like a new GP referral                        | 44     | 3.53    | 38     | 3.48    | 82     | 3.51    |
| Patient reminded of right and importance to choose their GP | 34     | 2.73    | 236    | 21.63   | 270    | 11.56   |
| No primary care assessment                                  | 376    | 30.20   | 153    | 14.02   | 529    | 22.65   |

<sup>\*</sup>More than one option possible per patient

# Number of concerns/questions at consultation

Within a consultation, patients are asked about the symptoms and concerns they have both now and what they are worried about going forward in the future.

In the first review of the program, there was an average of 3.01 concerns or questions per patient. In this review, the average number of concerns per patient was 4.75. The total average of concerns at consultation per patient across the program is 3.88.

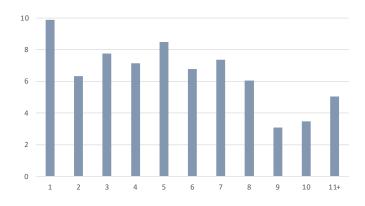


Table 3.2: Number of concerns/questions at consultation

Figure 3.2: No. of concerns/questions at consultation (% of all people accessing Patient Pathways)

| Symptoms concerns at consultation | 2020   | 2020    |        | 2021    |        | rogram  |
|-----------------------------------|--------|---------|--------|---------|--------|---------|
|                                   | n=1245 | Percent | n=1091 | Percent | n=2336 | Percent |
| 1                                 | 107    | 8.59    | 124    | 11.37   | 231    | 9.89    |
| 2                                 | 83     | 6.67    | 65     | 5.96    | 148    | 6.34    |
| 3                                 | 98     | 7.87    | 83     | 7.61    | 181    | 7.75    |
| 4                                 | 93     | 7.47    | 74     | 6.78    | 167    | 7.15    |
| 5                                 | 97     | 7.79    | 101    | 9.26    | 198    | 8.48    |
| 6                                 | 68     | 5.46    | 90     | 8.25    | 158    | 6.76    |
| 7                                 | 74     | 5.94    | 98     | 8.98    | 172    | 7.36    |
| 8                                 | 47     | 3.78    | 94     | 8.62    | 141    | 6.04    |
| 9                                 | 27     | 2.17    | 45     | 4.12    | 72     | 3.08    |
| 10                                | 37     | 2.97    | 44     | 4.03    | 81     | 3.47    |
| 11+                               | 46     | 3.69    | 72     | 6.60    | 118    | 5.05    |
| General enquiry                   | 468    | 37.59   | 201    | 18.42   | 669    | 28.64   |

# Number of symptom concerns in the future

In the first review of the program, there was an average of 3.23 future concerns per patient. In this review, the average number of future concerns per patient is 3.65. The average of future concerns per patient across the program is 3.44.

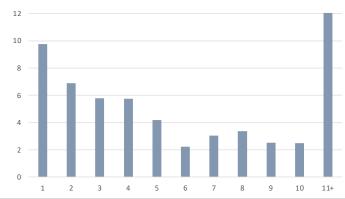


Table 3.4: Number of symptom concerns in the future

Figure 3.4: Number of symptom concerns in the future (% of all people accessing Patient Pathways)

| Symptom concerns in the future       | 2020   |         | 2021   |         | Total program |         |
|--------------------------------------|--------|---------|--------|---------|---------------|---------|
|                                      | n=1245 | Percent | n=1091 | Percent | n=2336        | Percent |
| 1                                    | 96     | 7.71    | 132    | 12.10   | 228           | 9.76    |
| 2                                    | 89     | 7.15    | 72     | 6.60    | 161           | 6.89    |
| 3                                    | 86     | 6.91    | 49     | 4.49    | 135           | 5.78    |
| 4                                    | 110    | 8.84    | 24     | 2.20    | 134           | 5.74    |
| 5                                    | 67     | 5.38    | 31     | 2.84    | 98            | 4.20    |
| 6                                    | 39     | 3.13    | 13     | 1.19    | 52            | 2.23    |
| 7                                    | 28     | 2.25    | 43     | 3.94    | 71            | 3.04    |
| 8                                    | 32     | 2.57    | 47     | 4.31    | 79            | 3.38    |
| 9                                    | 28     | 2.25    | 31     | 2.84    | 59            | 2.53    |
| 10                                   | 38     | 3.05    | 20     | 1.83    | 58            | 2.48    |
| 11+                                  | 127    | 10.20   | 154    | 14.12   | 281           | 12.03   |
| No future questions/concerns recorde | 505    | 40.56   | 475    | 43.54   | 980           | 41.95   |

#### **Clinical trial status**

Patients are asked about their clinical trial status as a way to open up conversations about clinical trial participation. This is referred to as a clinical trial assessment within the Patient Pathways telehealth service.

In the 2020 review, there were 467 (37.51%) patients that had not had any conversation about clinical trials before entering Patient Pathways. Only 32 (2.57%) had participated in a clinical trial. In the 2021 review there were 547 (50.14%) patients that had not had any conversation about clinical trials before entering Patient Pathways

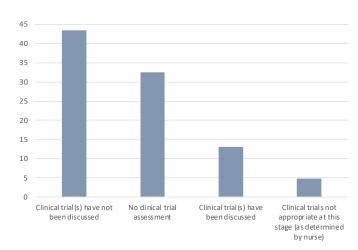


Table 3.6: Clinical trial status

Figure 3.6: Clinical trial status (% of all people accessing Patient Pathways)

| Clinical trials  | 20     | 2020    |        | 2021    |        | rogram  |
|--|--------|---------|--------|---------|--------|---------|
|  | n=1245 | Percent | n=1091 | Percent | n=2336 | Percent |
| Patient has participated in a clinical trial                           | 32     | 2.57    | 14     | 1.28    | 46     | 1.97    |
| Clinical trial(s) have been discussed                                  | 171    | 13.73   | 133    | 12.19   | 304    | 13.01   |
| Clinical trial(s) have not been discussed                              | 467    | 37.51   | 547    | 50.14   | 1014   | 43.41   |
| Clinical trials not appropriate at this stage (as determined by nurse) | 46     | 3.69    | 65     | 5.96    | 111    | 4.75    |
| No clinical trial assessment   | 406    | 32.61   | 354    | 32.45   | 760    | 32.53   |

<sup>\*</sup>More than one option possible per patient

## Information requested

Patient Pathways nurses provide information through discussion, online materials and written materials. The type of information required also leads to nurse-led interventions such as prompt-list development, symptom management and symptom tracking.

The most common information requested in the 2020 evaluation was in relation to treatment information (n=413, 33.17%), followed by disease management (406, 32.61%) and psychological/social supprt (n=292, 23.45%). The most common information requested in the 2021 evaluation followed the same pattern and overall, the most requested information related to treatment information (n=1260, 53.94%), followed by disease management (694, 29.71%) and psychological/social supprt (n=547, 23.42%).

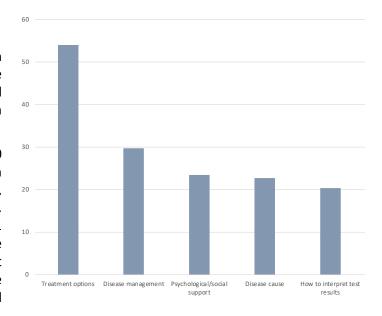


Table 3.7: Information requested

Figure 3.7: Information requested (% of all people accessing Patient Pathways)

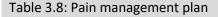
| Information gaps              | 2020   |         | 2021   |         | Total program |         |
|-------------------------------|--------|---------|--------|---------|---------------|---------|
|                               | n=1245 | Percent | n=1091 | Percent | n=2336        | Percent |
| Clinical trials               | 137    | 11.00   | 236    | 21.63   | 373           | 15.97   |
| Complementary therapies       | 99     | 7.95    | 19     | 1.74    | 118           | 5.05    |
| Dietary information           | 258    | 20.72   | 132    | 12.10   | 390           | 16.70   |
| Disease cause                 | 259    | 20.80   | 271    | 24.84   | 530           | 22.69   |
| Disease management            | 406    | 32.61   | 288    | 26.40   | 694           | 29.71   |
| Hereditary considerations     | 145    | 11.65   | 228    | 20.90   | 373           | 15.97   |
| How to interpret test results | 196    | 15.74   | 280    | 25.66   | 476           | 20.38   |
| My Health Record Accessed     | 24     | 1.93    | 79     | 7.24    | 103           | 4.41    |
| Physical activity             | 198    | 15.90   | 124    | 11.37   | 322           | 13.78   |
| Psychological/social support  | 292    | 23.45   | 255    | 23.37   | 547           | 23.42   |
| Treatment options             | 413    | 33.17   | 847    | 77.64   | 1260          | 53.94   |

<sup>\*</sup>More than one option possible per patient

# Pain management plan

Timely pain management is an important part of holistic care. A pain management assessment seeks to identify whether the patient is currently having any pain and whether it is being proactively managed.

While pain was a concern for many patients, there were 528 (22.60%) that had no pain needing to be managed. There were also 243 (10.02%) that did not have their pain under control and 242 (10.36%) patients needing a pain management plan or revision.



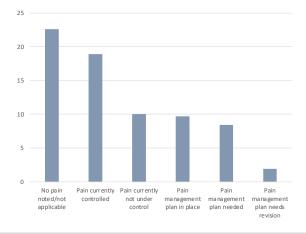


Figure 3.8: Pain management plan (% of all people accessing Patient Pathways)

| Pain management plan                | 2020   |         | 2021   |         | Total program |         |
|-------------------------------------|--------|---------|--------|---------|---------------|---------|
|                                     | n=1245 | Percent | n=1091 | Percent | n=2336        | Percent |
| Pain currently controlled           | 195    | 15.66   | 247    | 22.64   | 442           | 18.92   |
| Pain currently not under control    | 91     | 7.31    | 143    | 13.11   | 234           | 10.02   |
| No pain noted/not applicable        | 332    | 26.67   | 196    | 17.97   | 528           | 22.60   |
| Pain management plan needs revision | 37     | 2.97    | 8      | 0.73    | 45            | 1.93    |
| Pain management plan needed         | 72     | 5.78    | 125    | 11.46   | 197           | 8.43    |
| Pain management plan in place       | 128    | 10.28   | 98     | 8.98    | 226           | 9.67    |
| No pain assessment recorded         | 473    | 37.99   | 412    | 37.76   | 885           | 37.89   |

<sup>\*</sup>More than one option possible per patient

# Number of opportunities, services, referrals and interventions

Patient Pathways telehealth nurses conduct a range of nurse-led interventions and referrals. Overall there were 19,867 referrals or interventions made at an average of 8.50 per patient.

There were 6,705 instances where information was provided or discussed in consultation, 2,812 allied health and supportive care referrals, 1,711 primary care assessments, 1,646 home status assessments, 1,577 clinical trial assessments, and 1,450 pain assessments.

Table 3.8: Opportunities, services, referrals and interventions

| Number of services, opportunities                    | 2020   | 2021   | Total  |  |
|--|--------|--------|--------|--|
| and referrals  | n=1245 | n=1091 | n=2336 |  |
| Allied health and supportive care referrals          | 1271   | 1541   | 2812   |  |
| Primary care assessments                             | 773    | 938    | 1711   |  |
| Pain assessments                                     | 771    | 679    | 1450   |  |
| Palliative care assessment                           | 774    | 205    | 979    |  |
| Clinical trial assessment                            | 840    | 737    | 1577   |  |
| Information provision, discussions and interventions | 2392   | 4313   | 6705   |  |
| Symptom management assessments                       | 873    | 838    | 1711   |  |
| MDT assessment                                       | 704    | 572    | 1276   |  |
| Home status assessment                               | 849    | 797    | 1646   |  |
| Total  | 9247   | 10620  | 19867  |  |
| Average interventions per patient                    | 7.43   | 9.73   | 8.50   |  |

<sup>\*</sup>More than one option possible per patient