HealthPathways: a detailed analysis of utilisation trends in the northern Sydney region

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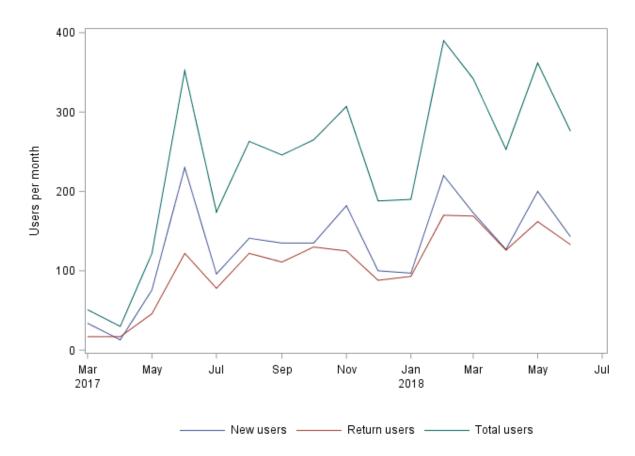


Figure \$1. Users by month and user type.



Figure S2. User pathways for all sessions – top five pages at each interaction.

Notes. \sim = exact numbers not provided by GA; Drop off % is calculated as a percentage change from one interaction to the next.

 Table S1. Clinical streams and pathways

Clinical Stream	Pathway	Status	Pathway Type
Acute or Emergency	After Hours Health Care	Complete	Referral
Acute or Emergency	Hospital in the Home (HITH)	Complete	Referral
Allied Health	Community Nursing	Complete	Request
Allied Health	Social Work Support	Complete	Request
Assault or Abuse	Carer Stress and Support	Complete	Clinical
Assault or Abuse	Domestic Violence	Complete	Clinical
Assault or Abuse	Domestic and Family Violence Support	Complete	Resource
Assault or Abuse Child Health	Managing Perpetrators of Domestic Family Abuse and Violence (DFAV) Child At Risk	Complete Complete	Clinical Clinical
Child Health	Family and Community Support	Complete	Referral
Child Health	Gastroenteritis in Children	Complete	Clinical
Child Health	Child and Youth at Risk Support	Complete	Request
Child Health	Paediatric Medical Advice	Complete	Request
Child Health	Specialist Child Weight Management Referrals	Complete	Request
Child Health	Paediatric Vision Testing	Complete	Request
Diabetes	Diabetes Cycle of Care	Complete	Clinical
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Diabetes Diabetes	Hypoglycaemia Diabetes Education	Complete	Clinical
		Complete	Request
Diabetes Diabetes	Pre-pregnancy Planning for Type 1 and Type 2 Diabetes Type 1 and Type 2 Diabetes and Pregnancy	Complete Complete	Clinical Clinical
Diabetes	Non-urgent Diabetes Review	Complete	Request
Diabetes	Pre-diabetes	Complete	Clinical
Diabetes	Diabetes Advice	Complete	Request
Diabetes	Urgent Diabetes Review	Complete	Request
Diabetes	Hyperglycaemia and Corticosteroids	Complete	Clinical
Diabetes	Screening and Diagnosis of Diabetes	Complete	Clinical
Diabetes	Ongoing Management of Type 2 Diabetes	Complete	Clinical
Diabetes	Medications in Diabetes	Complete	Clinical
Diabetes	Managing Newly Diagnosed Type 2 Diabetes	Complete	Clinical
Diabetes	Newly Diagnosed Type 1 Diabetes - Adults	Complete	Clinical
Diabetes	Gestational Diabetes Mellitus (GDM)	Complete	Clinical
Diabetes	Starting Insulin	Complete	Clinical
Diabetes	Insulin Pump Breakdown and Troubleshooting	Complete	Resource
Diabetes	Self-Monitoring Blood Glucose (SMBG)	Complete	Clinical
Diabetes	Glycaemic Control	Complete	Clinical
Diabetes	Insulin - Ongoing Management	Complete	Clinical
End of Life	Advance Care Planning (ACP)	Complete	Clinical
ENT/Otolaryngology,	Non-urgent ENT Review	Complete	Request
Head, and Neck ENT/Otolaryngology,	Tonsillitis	Complete	Clinical
Head, and Neck ENT/Otolaryngology,	Audiology Requests	Complete	Request
Head, and Neck Gastroenterology	Chronic Hepatitis C	Complete	Clinical
Gastroenterology	Liver Condition Advice	Complete	Request
Gastroenterology	Non-urgent Liver Condition Review	Complete	Request
Gastroenterology	Urgent Liver Condition Review	Complete	Request
General Medicine	Cellulitis	Complete	Clinical
Genetics	Non-urgent Genetic Health Review	Complete	Request
Genetics	Urgent Genetic Health Review	Complete	Request
Genetics	Genetic Health Advice	Complete	Request
	Third and Fourth Degree Perineal Tears	Complete	Clinical
Gynaecology Gynaecology	Cervical Screening	Complete	Clinical

Gynaecology	Emergency Contraceptive	Complete	Clinical
Gynaecology	Urgent Gynaecology Review	Complete	Request
Gynaecology	Non-urgent Gynaecology Review	Complete	Request
Gynaecology	Maternal Fetal Medicine Review	Complete	Request
Gynaecology	Gynaecology Advice	Complete	Request
Gynaecology	Colposcopy Review	Complete	Request
Gynaecology	Cervical Polyps	Complete	Clinical
Gynaecology	Intra-uterine System or Device (IUD) Insertion	Complete	Clinical
Gynaecology	Contraceptive Implant	Complete	Clinical
Gynaecology	Progesterone Only Contraceptive Pills (POPs)	Complete	Clinical
	Combined Hormonal Contraceptives (CHCs)		Clinical
Gynaecology Gynaecology	Contraceptive Injection	Complete Complete	Clinical
Gynaecology	Sterilisation	Complete	Clinical
	Antenatal Clinic Review		
Gynaecology	Postpartum Contraception	Complete	Request Clinical
Gynaecology		Complete	Clinical
Haematology	Anticoagulation Therapy for DVT Immunisation - Childhood (Age < 10 Years)	Complete	Clinical
Immunology Infectious Diseases	Influenza	Complete	Clinical
Infectious Diseases	Influenza Immunisation	Complete	
		Complete	Resource
Infectious Diseases Infectious Diseases	Infectious Mononucleosis	Complete	Clinical
	Infectious Diseases Advice	Complete	Request
Lifestyle	Energy Rebates for Medical Equipment	Complete	Request
Lifestyle	Travel Vassination	Complete	Clinical
Lifestyle	Travel Vaccination	Complete	Resource
Mental Health	Anxiety in Adults	Complete	Clinical
Mental Health	Depression in Adults	Complete	Clinical
Mental Health	Medications for Perinatal Depression and Anxiety	Complete	Clinical
Mental Health	Perinatal Mental Health Review	Complete	Referral
Mental Health	ADHD in Adults	Complete	Clinical
Mental Health	Deliberate Self-harm	Complete	Clinical
Mental Health	Problem Gambling Counselling	Complete	Request
Mental Health	Eating Disorders	Complete	Clinical
Mental Health	Mental Health Advice	Complete	Request
Mental Health	E-Mental Health Services, Treatment and Support Programs	Complete	Request
Mental Health	Eating Disorders Specialised Review	Complete	Referral
Mental Health	Perinatal Depression and Anxiety	Complete	Clinical
Mental Health	Suicide Prevention in Adults	Complete	Clinical
Mental Health	Non-urgent Mental Health Review	Complete	Request
Mental Health	Borderline Personality Disorder (BPD)	Complete	Clinical
Mental Health	Urgent Mental Health Review	Complete	Request
Mental Health	Non-urgent Child and Youth Mental Health Review	Complete	Request
Mental Health	Perinatal Mental Health Support	Complete	Request
Mental Health	Short Term Psychological Therapies (formerly ATAPS)	Complete	Referral
Mental Health	Drug and Alcohol Counselling	Complete	Request
Mental Health	Drug and Alcohol Advice	Complete	Request
Mental Health	Bereavement, Grief, and Loss	Complete	Clinical
Mental Health	Drug and Alcohol Support	Complete	Request
Mental Health	Vulnerable Adult	Complete	Clinical
Mental Health	Bereavement, Loss, and Grief Counselling	Complete	Request
Mental Health	GP Mental Health Treatment Plan	Complete	Resource
Mental Health	Physical Health and Mental Illness	Complete	Clinical
Neurology	Non-urgent Neurology Review	Complete	Request
Older Adults Health	Unexpected Deterioration in an Older Person	Complete	Clinical
Older Adults Health	Frail But Stable Older Persons	Complete	Clinical
Older Adults Health	Elder Abuse and Neglect	Complete	Clinical
Older Adults Health	Delirium	Complete	Clinical
Older Adults Health	Behaviour Concerns in Dementia	Complete	Clinical
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Older Adults Health	Falls Prevention and Assessment	Complete	Clinical
Older Adults Health	Cognitive Impairment	Complete	Clinical
Older Adults Health	Memory Clinics	Complete	Request
Older Adults Health	Medication Management and Polypharmacy in Older Persons	Complete	Clinical
Older Adults Health	Dementia Review	Complete	Referral
Older Adults Health	Older Person's Health Assessment	Complete	Clinical
Older Adults Health	Dose Administration Aids	Complete	Resource
Older Adults Health	Physical Activity Requests - Older Persons	Complete	Clinical
Older Adults Health	Fitness to Drive	Complete	Clinical
Older Adults Health	Aged Care Review	Complete	Referral
Orthopaedics	Orthopaedic Advice	Complete	Request
Orthopaedics	Osteoporosis Refracture Prevention Review	Complete	Request
Other	HealthPathways General	Complete	Other
Other	Emergency Department Review	Complete	Referral
Other	Northern Sydney - Our Region	Complete	Resource
Pain Management	Chronic Pain Specialised Review	Complete	Request
Pain Management	Chronic Pain Specialised Advice	Complete	Request
Palliative Care	Pain Medications in Palliative Care	Complete	Resource
Palliative Care	New Palliative Care Patient	Complete	Clinical
Palliative Care	Management of the Terminal Phase	Complete	Clinical
Palliative Care	Retained Airways Secretions (Death Rattle)	Complete	Clinical
Palliative Care	Hypercalcaemia of Malignancy	Complete	Clinical
Palliative Care	Raised Intracranial Pressure in Palliative Care	Complete	Clinical
Palliative Care	Pain Management in Palliative Care	Complete	Clinical
Palliative Care	Spinal Cord Compression	Complete	Clinical
Palliative Care	Issuing a Medical Certificate of Cause of Death	Complete	Clinical
Palliative Care	-		Clinical
Palliative Care	Nausea and Vomiting in Palliative Care Patients Bowel Obstruction in Palliative Care	Complete	Clinical
		Complete	_
Palliative Care	Delirium in Palliative Care Patients	Complete	Clinical
Palliative Care	Sleep Disturbances in Palliative Care	Complete	Clinical
Palliative Care	Dyspnoea in Palliative Care Patients	Complete	Clinical
Palliative Care	Specialist Palliative Care Review	Complete	Request
Palliative Care	Palliative Care Advice	Complete	Request
Palliative Care	Palliative Care Nursing	Complete	Request
Palliative Care	Subcutaneous Fluid Administration in Palliative Care	Complete	Clinical
Palliative Care	Caring for a Dying Patient at Home	Complete	Resource
Palliative Care	Constipation in Palliative Care Patients	Complete	Clinical
Palliative Care	Management of Seizures in Palliative Care	Complete	Clinical
Palliative Care	Terminal Crises in an Imminently Dying Patient	Complete	Clinical
Palliative Care	Cough in Palliative Care	Complete	Clinical
Palliative Care	Oral Care in Palliative Care	Complete	Clinical
Pharmacology	Reporting Adverse Events	Complete	Resource
Pharmacology	Practical Prescribing Guide	Complete	Resource
Pregnancy	Preconception Counselling	Complete	Clinical
Pregnancy	Breastfeeding Support	Complete	Request
Pregnancy	Screening for Fetal Chromosomal Conditions	Complete	Clinical
Pregnancy	Antenatal - First Consult	Complete	Clinical
Pregnancy	Maternal Postnatal Check	Complete	Clinical
Pregnancy	Obstetrics Advice	Complete	Request
Pregnancy	Antenatal Education	Complete	Request
Public Health	Public Health Updates	Complete	Resource
Public Health	Vaccination During Pregnancy and Pregnancy Planning	Complete	Clinical
Public Health	Immunisation - Adults	Complete	Clinical
Public Health	Rabies and Bat Lyssavirus Vaccination	Complete	Clinical
Referral Information	Medication Management Review	Complete	Referral
Resources	Useful Websites	Complete	Resource
Resources	Interpreter Services	Complete	Resource
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Resources	Chronic Disease Management Items	Complete	Resource
Resources	Using HealthPathways	Complete	Resource
Resources	National Health Services Directory	Complete	Resource
Resources	Department of Veterans' Affairs	Complete	Resource
Resources	Medicare and PBS Safety Nets	Complete	Resource
Resources	Closing the Gap - Indigenous Health Practice Incentive Program	Complete	Resource
Resources	Medical Practitioners' Health	Complete	Request
Resources	Aboriginal and Torres Strait Islander Health Funding	Complete	Resource
Resources	Principles for Care Provision for Aboriginal and Torres Strait Islander Peoples	Complete	Resource
Resources	Aboriginal and Torres Strait Islander Health Review	Complete	Resource
Resources	Community Transport Providers	Complete	Resource
Resources	Aboriginal and Torres Strait Islander Health Assessment	Complete	Resource
Respiratory	Respiratory Exercise Classes	Complete	Resource
Respiratory	Pulmonary Rehabilitation	Complete	Referral
Respiratory	Smoking Cessation Advice	Complete	Clinical
Respiratory	Community Acquired Pneumonia (CAP) in Adults	Complete	Clinical
Respiratory	Medications for Smoking Cessation	Complete	Clinical
Rheumatology	Urgent Rheumatology Review	Complete	Request
Rheumatology- Immunology	Non-urgent Rheumatology Review	Complete	Request
Rheumatology- Immunology	Rheumatology Advice	Complete	Request
Rheumatology- Immunology	Tetanus-prone Wounds	Complete	Clinical
Sexual Health	Genital Herpes	Complete	Clinical
Sexual Health	Sexual Health Review	Complete	Request
Sexual Health	Contact Tracing	Complete	Clinical
Sexual Health	Pelvic Inflammatory Disease (PID)	Complete	Clinical
Sexual Health	Epididymo-orchitis	Complete	Clinical
Sexual Health	Sexual Health Risk Assessment and Testing	Complete	Clinical

Table S2. Top fifteen (by mean viewing time per page) clinical streams

Rank	Clinical Stream	Mean Time Viewed	Mean Time New Views	Mean Time Return Views
1	Immunology	0:04:45	0:03:14	0:05:13
2	Lifestyle	0:02:49	0:01:38	0:03:15
3	Infectious Diseases	0:02:37	0:02:30	0:02:33
4	Public Health	0:02:25	0:01:18	0:02:46
5	Sexual Health	0:02:17	0:02:04	0:02:19
6	End of Life	0:02:09	0:02:13	0:02:03
7	General Medicine	0:02:07	0:01:55	0:02:23
8	Pregnancy	0:02:04	0:01:32	0:02:10
9	Gynaecology	0:02:04	0:01:23	0:02:10
10	Gastroenterology	0:01:58	0:00:58	0:02:13
11	Mental Health	0:01:51	0:01:43	0:01:52
12	Older Adults Health	0:01:45	0:01:50	0:01:38
13	ENT/Otolaryngology, Head, and Neck	0:01:40	0:01:26	0:01:46
14	Pain Management	0:01:39	0:05:56	0:00:54
15	Rheumatology	0:01:37	0:00:00	0:01:41

Table S3. Top ten search terms with and without results

Search	N searches	Search (without results)	N searches
diabetes	131	aquatherapy	7
dementia	71	ercp pathways	7
antenatal	57	bartholin-abscess	5
hepatitis b	45	/111136.htm?zoom_highlight=liver	5
palliative care	44	legionaires disease	5
alcohol	43	blastocystis	4
back pain	34	ccf	4
older persons health physiotherapy	31	chondrodermatitis nodularis helicis	4
pregnancy	30	addisons	3
chlamydia	28	afebrile seizures in children	3
Total searches	4,663	Total searches	374

Table S4. Promotional events

Clinical Stream	Number of promotional events
Palliative Care	77
Diabetes	35
Older Adults Health	29
Mental Health	20
Gastroenterology	12
Pregnancy	11
Gynaecology	7
Sexual Health	6
Assault or Abuse	3
Pharmacology	3
Genetics	2
Immunology	1
Infectious Diseases	1
Public Health	1