Victorian Research and Education Network

IMPACT STORIES
VicREN- Impacts

**Practice-based research networks (PBRNs)** are collaborations between clinical practitioners and academics that undertake and participate in general practice research and work together to assist the translation of new knowledge into practice. PBRNs engage general practitioners as well as practice managers and nurses in the research process, increasing the relevance of the research questions, improving study design and maximising health outcomes for patients.

In 2021, there were 24 independent PBRNs operating across Australia, including the University of Melbourne managed Victorian Research and Education Network (VicREN). Each PBRN varied considerably in its membership scope, level of research readiness, ability to provide training and achieve meaningful outputs.

To unite these networks, the Department of General Practice and Primary Care at the University of Melbourne is bringing together the major academic leaders in Australian primary care research and industry leaders in a national PBRN consortium called TRIDENT.

This portfolio includes a small sample of real-world health impacts that have been achieved with the University of Melbourne's general practice based research network in Victoria, VicREN. This model could be scaled nationally, through TRIDENT.

**Fast Facts**

Approximately 600 practices in urban and rural Victoria partner with the University of Melbourne’s Department of General Practice and Primary Care in research, evaluation, advocacy and teaching medical students.

Every year, around 700 University of Melbourne medical students are placed in over 200 general practices for almost 9500 placement days for hands-on, experiential learning about being a general practitioner.

Over 130 general practices partner with VicREN by sharing de-identified data from over two million electronic medical records for trials, decision support tool design, follow-up and linkage. Data is stored securely in the Patron data repository under the governance of an independent governance group.

The Department of General Practice and Primary Care has conducted 22 randomised trials involving 450 practices and approximately 30,000 participants.

Cancer and other healthcare services are delivered in a variety of locations and settings across Victoria. The related health data is normally collected in isolation, siloed in separate systems and bound by governance complexities that prevents its use for effective, scalable health services research.

By linking these data sources, researchers would be able to build a complete picture of how and where patients access care, how they’re being diagnosed and their quality of life after treatment. Data linkage would also provide greater opportunities for inspiration, innovation and integration.

**SOLUTION**

A collaboration between the VCCC Alliance, the University of Melbourne, hospitals and BioGrid Australia, Data Connect provides clinicians, researchers, scientists, academics and technical experts with secure access to large-scale, cost-effective and ethically-linked data.

The platform is housed in a secure research environment at the University of Melbourne and links de-identified data from six major Victorian health databases, primary care practices, and hospital, clinical and population registries. The Data Connect team also provides expertise and guidance to researchers to ensure the right data is available and any limitations on the datasets are understood prior to onset.

**IMPACTS**

- **End of Life Care**  
  Establishing patterns of primary care usage in the last six months of care

- **Health Equity**  
  Preliminary data analysis to inform equity work in vulnerable groups

- **Cancer Registry Pilot**  
  Analysis of de-identified patients linked by sex, age, cancer type, encounters, imaging requests, results, conditions and admissions

- **Abnormal Blood Test Results**  
  Estimating prevalence of abnormal results and rates of follow-up

**BENEFITS**

- Helps address the healthcare research gap in Victoria

- Completes the picture of how and where patients access care, how they’re being diagnosed and their quality of life after treatment

- Contributes to better understanding of how services can be integrated, where care delivery is most effective and how to achieve the best outcome

- Provides an ideal environment to enable access, linkage and analysis of health data from across Victoria for research purposes

- Facilitates faster translation of the latest advances in cancer research
Chronic disease is the leading cause of illness, disability and death in Australia. Effective management is essential to provide people with an optimal quality of life while also minimising the Government’s financial burden.

With more than 90% of Australians visiting their GP at least once per year, researchers from The University of Melbourne wanted to find a way to help general practices identify, treat and manage chronic disease without adversely impacting their time.

**SOLUTION**

An initial analysis of electronic medical record data from 87 general practices in the PATRON database revealed that diagnosis and management of chronic kidney disease was often not consistent with current clinical guidelines.

This prompted the development of a software platform called Future Health Today (FHT). This software utilises general practice’s existing onsite EMR data to provide intervention suggestions and patient support that was inline with the guidelines.

The Victorian Research and Education Network (VicREN) was activated, successfully recruiting 58 general practices to take part in a 12 month randomised clinical trial. This gave the researchers access to over 570,000 patients Victoria wide, greatly improving the reach and significance of the trial.

**IMPACTS**

**Early identification of at-risk patients**

FHT automatically searches general practice EMR data to identify patients who are at risk of chronic disease, have undiagnosed chronic disease, or would benefit from change to their existing management plan. These patients are then recalled for a review with their GP.

**Real-time diagnosis and management suggestions**

By accessing patient EMR, FHT is able to provide individualised suggestions based on current evidence and clinical guidelines. The suggestions are always accompanied by the underlying rationale.

**TORCH RECRUIT**

Finding patients to participate in clinical trials can be difficult, especially in rural and regional locations.

Torch Recruit is a software program developed during the FHT clinical trial. It works with the national PARTNER network and streamlines the process of recruitment by identifying eligible patients using their EMR.

Backed by the University of Melbourne and Western Health, Torch Recruit is now a standalone commercial entity.

**BENEFITS**

Improves patient health outcomes through early identification of at risk and undiagnosed patients with chronic disease

Prompts patients to attend a health review rather than waiting for symptoms to worsen

Reduces financial burden to the healthcare system by shortening the duration of chronic disease management

All EMR data is de-identified, extracted nightly and does not leave the general practice

EMR data can also be utilised for quality improvement activities, reducing the general practice’s workload
Family, domestic and sexual violence against women is a chronic problem in Australia with one in every three women over the age of 15 experiencing physical violence and one in every five experiencing sexual violence. The health impacts of this violence are wide ranging and long lasting.

**SOLUTION**

A research team was formed to determine whether the safety, mental health and wellbeing of women could be improved if their doctor was trained to detect and respond to family, domestic or sexual violence.

52 general practice clinics were recruited through the Victorian Research and Education Network to participate in a clinical trial where practitioners were trained in the recognition and early intervention of domestic abuse and family violence.

Trial results showed a significant reduction in violence-related health impacts when the physician had received appropriate training. These findings were published in The Lancet, receiving worldwide attention and critical acclaim.

Subsequent funding from the Australian Government saw the establishment of the Safer Families Centre for Research Excellence, which allowed the training program to be enhanced, expanded and adopted in health networks nationally.

**IMPACTS**

**The Readiness Program**

The program is designed to improve the awareness, skills and confidence of general practice team members to identify and respond to domestic abuse and family violence. Training is interactive, practice-based and can be completed online with ongoing access to support and resources.

**Primary Health Network Rollout**

First trialled by the North Western Melbourne Primary Health Network, the program was subsequently rolled out to 41 PHNs across Victoria.

**National Program**

The Readiness Program has now been adopted in PHNs across Australia with many of the practitioners involved in the original study continuing to be engaged by training new practitioners and promoting awareness.

**KEY FEATURES**

- Online training workshops
- Virtual practice-centred learning
- Suite of e-learning modules
- Webinar series
- GP-led community of practice

**BENEFITS**

- Early identification and intervention with at-risk patients
- Confident practitioners feel empowered to provide relevant and timely information and assistance
- Evidence-based content promoting trauma and violence-informed care
- Whole of practice response to family, domestic and sexual violence
- Sustainable and capacity building model that addresses a chronic health issue in Australia