

Evaluation of Project ECHO (Persistent Pain)

University of Sydney, Menzies Centre for Health Policy and Economics

Final evaluation report

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Evaluation of Project ECHO (Persistent Pain): Final evaluation report

Prepared by: Menzies Centre for Health Policy and Economics, Faculty of Medicine and Health, The University of Sydney

Contributing authors: Dr Simone De Morgan, Ms Pippy Walker, Professor Fiona Blyth, and Dr Carmen Huckel Schneider

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Part A. Executive summary

Western Victoria Primary Health Network (WVPHN) in partnership with the Transport Accident Commission (TAC) and WorkSafe Victoria ('WorkSafe') implemented Project ECHO (Persistent Pain) Series 1 in February-June 2020 and Series 2 in July-December 2020.

The Menzies Centre for Health Policy and Economics, University of Sydney has been commissioned by WVPHN to undertake the evaluation of Project ECHO (Persistent Pain) Series 2.

Project ECHO (Persistent Pain) is an innovative, evidence-based telementoring and capacity-building initiative implemented by WVPHN and partners to improve the knowledge, skills, and confidence of primary care providers in best-practice chronic pain management. The Project ECHO model is an online community of practice involving two components, firstly, a didactic presentation about a relevant topic, and secondly, a case presentation, mentoring by hub panel members and group discussion.

A.1 Evaluation Framework for Project ECHO (Persistent Pain)

The Evaluation Framework for Project ECHO (Persistent Pain) was developed by the evaluation team in collaboration with WVPHN and partners.

A.1.1 Objectives of the evaluation of Project ECHO (Persistent Pain)

The **primary objectives** of the evaluation are to:

- i. Develop an evaluation framework and program logic that could be applied to other series of Project ECHO (Persistent Pain) and be adapted to other Project ECHO programs.
- ii. Describe the implementation and curriculum of Project ECHO (Persistent Pain)
- iii. Assess participant outcomes of Project ECHO (Persistent Pain)
- iv. Provide opportunities for discussion between WVPHN, partners and the evaluation team during implementation aligned to a continuous improvement model
- v. Highlight key learnings and make recommendations for improvements in the implementation and curriculum of Project ECHO (Persistent Pain)

The **secondary objectives** of the evaluation are to:

- i. Explore whether the Project ECHO model is a suitable and effective Workforce Learning Platform for WVPHN
- ii. Explore how the Project ECHO model could be replicated to other health contexts
- iii. Make recommendations for the future development and implementation of high-quality Project ECHO programs

A.1.2 Theoretical frameworks

Two theoretical frameworks informed the outcomes of this evaluation, *Consolidated Framework for Implementation Research (CFIR)* developed by Damschroder and colleagues (2009), and the *Moore's Framework - An Outcome Framework for Planning and Assessing Continuing Medical Education (CME) Activities*, commonly used to evaluate Project ECHO programs.

A.1.3 Outcomes of the evaluation

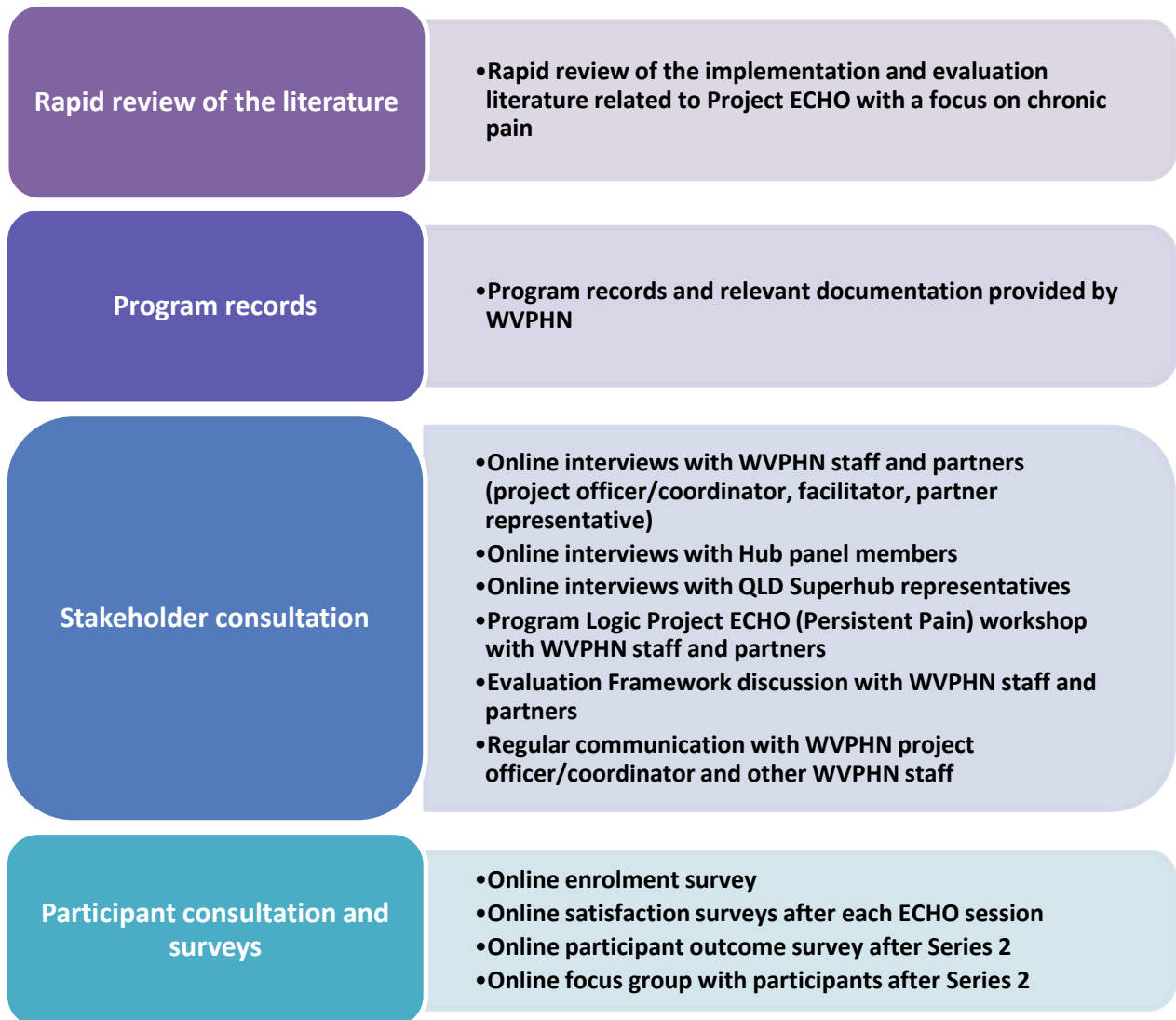
The outcomes of the evaluation include:

- a. **Implementation outcomes:** description of governance and communication arrangements; curriculum development and topics selected; Project ECHO activities; changes to planned

implementation; implementation successes and challenges; enablers to implementation; fidelity to Project ECHO Principles; feasibility; resourcing; perceived acceptability and appropriateness of Project ECHO as a capacity building initiative for WVPHN; and considerations for adapting Project ECHO (Persistent Pain) to other health contexts.

- b. **Participant outcomes:** participation; satisfaction with the content and format; perceived knowledge gaps and participant expectations; and self-reported outcomes related to learning, confidence, competence, performance, professional support, and patient benefits.

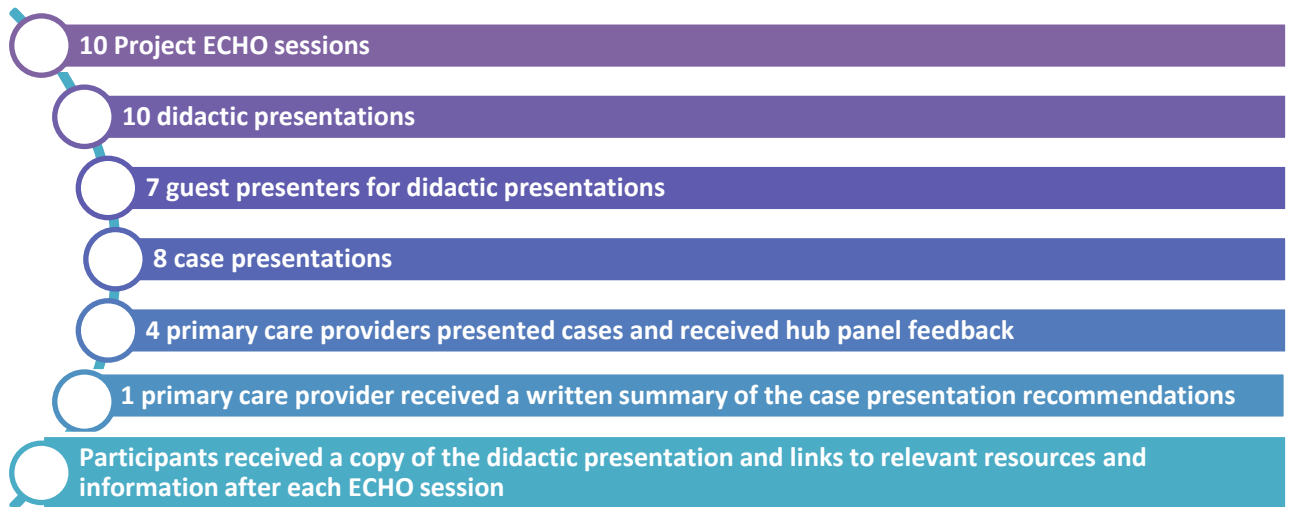
A.1.4 Methods of the evaluation



For information about the evaluation design see the main body of the report, **B.1.4, Page 18** and **Appendix 1 Page 65**.

A.2 Key findings of the evaluation

A.2.1 Activities of Project ECHO (Persistent Pain) Series 2



For more information about the activities of Project ECHO (Persistent Pain) Series 2, see the main body of the report, **C.2.5, Page 26**.

A.2.2 Curriculum of Project ECHO (Persistent Pain) Series 2

| Curriculum of Project ECHO (Persistent Pain) Series 2 | |
|---|----------------------------------|
| Session 1: Pain Education | Session 6: Compensable Clients |
| Session 2: Low Back Pain - Part 1 | Session 7: Pelvic Pain - Part 1 |
| Session 3: Low Back Pain - Part 2 | Session 8: Pelvic Pain - Part 2 |
| Session 4: Sleep Management | Session 9: Medical Cannabis |
| Session 5: Graded Exposure | Session 10: Graded Motor Imagery |

A.2.3 Participation in Project ECHO (Persistent Pain) Series 2



- 87 health professionals
- Average 30 participants per ECHO session
- Primary care providers (94%)
- A range of primary care providers: GPs, physiotherapists, exercise physiologists, occupational therapists, osteopaths, psychologists, nurses or nurse practitioners, and pharmacists
- One third physiotherapists and 15% GPs
- More than half worked in Western Victoria PHN catchment; 25% in Melbourne; and 12% in other parts of Victoria

Participation in Project ECHO (Persistent Pain) Series 2 met the expectations of WVPHN and partners.

For more information about participation in Project ECHO (Persistent Pain) Series 2, see the main body of the report, **C.3.1, Page 27**.

A.2.4 Satisfaction with the content and formatⁱ

A high level of satisfaction with Project ECHO Series 2 has been demonstrated (*satisfaction surveys and focus group feedback*).

- On average, **85%** reported that each of the ECHO sessions delivered were 'excellent' or 'very good' in terms of **balanced and objective, evidence-based content**ⁱⁱ
- **Almost 100%** reported that the *didactic* and *case presentation* in each of the ECHO sessions was 'relevant' or 'partly relevant' to their workⁱⁱ
- On average, **80%**, reported that each of the ECHO sessions were 'excellent' or 'very good' in terms of opportunities to ask questionsⁱⁱ

"I am very, very grateful for this opportunity to be a participant in this very well organised and enriching program. Thank you to funding body(s), all organisers and panel for your hard work, dedication to this topic and to our community."
Project ECHO participant

Project ECHO participants valued the following:

| | |
|--|--|
| Project ECHO format | Online community of practice involving a didactic presentation followed by a case presentation, mentoring by hub panel members and group discussion |
| Up-to-date evidence-based information | Related to research and best-practice |
| Relevance | Relevance of the ECHO sessions to practice |
| Multidisciplinary focus | Perspectives of the multidisciplinary panel members, guest presenters and participants from a range of professional disciplines |
| Accessibility | Online learning, no cost and an open group |
| Complex cases | Opportunity to discuss difficult and complex cases |
| Resources | Resources discussed during the ECHO sessions and/or provided after the sessions |

For more information about satisfaction with the content and format; and example quotes from participants; see the main body of the report, **C.3.2.3, Page 34**.

ⁱ The average response rate for the satisfaction surveys over Series 2 was 45% (range 20-63%); and twelve health professionals participated in the online focus group

ⁱⁱ Data from satisfaction surveys (completed after each ECHO session)

A.2.5 Impact on learning, confidence and skills, performance, professional support, and patient benefitsⁱⁱⁱ

Most participants of Project ECHO Series 2 reported that Project ECHO (Persistent Pain) had improved their knowledge, confidence, quality of patient care and professional support (satisfaction and participant outcome surveys and focus group feedback).

Learning

- Most survey respondents reported that they had **'learnt something new'** from the *didactic* and *case presentation* in each of the ECHO sessions (average = 92% for didactic, average= 83% for case presentation) ⁱⁱ
- Most survey respondents reported that they had **'learnt or refreshed something that will be useful in caring for their patients'** in each of the ECHO sessions (average = 93%) ⁱⁱ
- Most survey respondents reported that the session about compensable clients gave them **'a greater understanding of the WorkSafe compensation system'** (77%) and approximately two-thirds of survey respondents reported that the session gave them **'a greater understanding of the TAC compensation system'** (62%) ⁱⁱ
- Most survey respondents reported that participation in Project ECHO **improved their knowledge about best practice chronic pain management** (89%) and **improved their knowledge about non-pharmacological strategies to manage chronic pain** (94%) ^{iv}

"I too only attended a few sessions but after attending these my confidence has increased significantly." Project ECHO participant

Confidence and skills

- Most survey respondents reported that participation in Project ECHO **improved their confidence to manage patients with chronic pain** (78%) and **improved their skills to manage patients with chronic pain** (83%) ^{iv}

"I found the pain education talk given by the GP panellist very relevant and I use his slides with my patients." Project ECHO participant

Perceived change in performance

- Most survey respondents reported that participation in Project ECHO **influenced how they manage patients with chronic pain** (82%) ^{iv}
- Most survey respondents reported that participation in Project ECHO **improved the quality of care of my patients with chronic pain** (78%) ^{iv}
- Two out of the three GPs who completed the survey reported that Project ECHO **increased their referrals to allied health practitioners for chronic pain management** and two out of the three GPs reported that it had **decreased their opioid prescribing** (either amount or frequency) ^{iv}

"I have been regularly challenging my patient's thinking and catastrophising behaviours and language around their pain. I routinely now normalise X-ray and scan findings where appropriate." Project ECHO participant

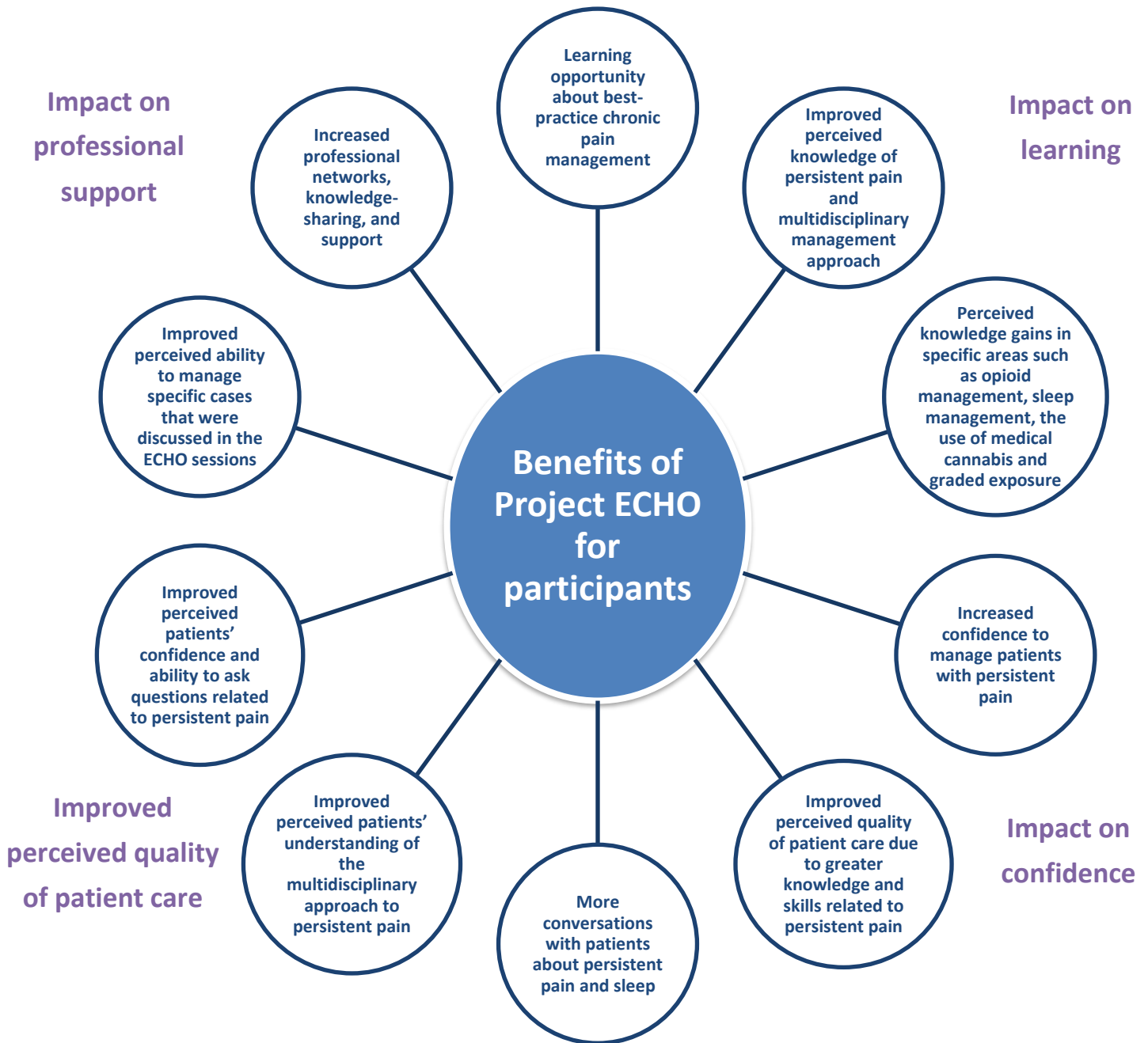
ⁱⁱⁱ Eighteen health professionals completed the participant outcome survey; and twelve health professionals participated in the online focus group

^{iv} Data from participant outcome survey (completed after Series 2)

Professional support

- All survey respondents reported that participation in Project ECHO provided professional support, and “valued participating in a community of practice” ^{iv}
- Most survey respondents reported that participation in Project ECHO reduced their professional isolation (78%) ^{iv}

“Please continue with this project into 2021. I found it extremely helpful and allowed me to connect with clinicians in this field.”
Project ECHO participant



For more information about the impact of the Project ECHO program; and example quotes from participants; see the main body of the report, **C.3.4.3, Page 45**.

A.3 Key learnings

Technology was not a major barrier to implementation of Project ECHO (Persistent Pain). Moreover, the COVID-19 pandemic was an enabling context for implementation of the program and accelerated the interest and confidence of WVPHN and end-users in e-networking and education.

Challenges to implementation

Challenges to implementation informed by the participant and stakeholder consultation (interviews, workshop with WVPHN and partners, participant surveys and participant focus group), included the following:

- **WVPHN staff changes** with the clinical facilitator/project manager/'Project ECHO champion' who had undertaken 'immersion training' no longer working at WVPHN after ECHO Session 4
- **Engaging GPs** to participate in the program
- Engaging primary care providers to give **case presentations**
- Time to **plan the curriculum** and develop learning objectives prior to the series
- Time to provide **guidance to didactic presenters** about format and relevance to practice
- Obtaining **CPD points** for all professional disciplines
- Providing '**back-up**' **Hub panel members** and **limited funds** for reimbursing Hub panel members
- Developing the **systems and processes to ensure efficiency**

Implementation successes and challenges are outlined in the main body of the report, C.5.1, Page 51.

Enablers to implementation

Enablers to implementation of Series 2, informed by the participant and stakeholder consultation (interviews, workshop with WVPHN and partners, participant surveys and participant focus group), included the following:

Commitment of WVPHN, partners and panel members

- ✓ **Enthusiasm and commitment of WVPHN staff and partners** to the Project ECHO model/'Project ECHO champions' within WVPHN and partners
- ✓ **'Buy-in' of WVPHN executive level staff** and alignment to WVPHN values and Strategic Directions (2020-2023)
- ✓ **Additional funding provided by the partners** and the contribution of the partners to the governance of the program
- ✓ **'Pain champions'** within WVPHN, partners and hub panel
- ✓ **Commitment and skills of WVPHN staff** including clinical knowledge of facilitator(s)
- ✓ **Enthusiasm and commitment of hub panel members**
- ✓ **Engagement of guest presenters** who had subject matter expertise, through leveraging established networks of stakeholders of WVPHN, partners and hub panel members

Appropriate to participants

- ✓ **Responding to need** (Learning Needs Analysis and emerging needs)

Governance, planning and co-ordination

- ✓ **Good governance and communication** arrangements

- ✓ **Piloting** of Project ECHO (Persistent Pain) in Series 1
- ✓ Project officer/**coordinator** and **facilitator roles** despite challenges from staff changes

Project ECHO model and ECHO CoP

- ✓ The **Project ECHO ‘implementers’ community of practice (CoP)** including training, resources, branding, and support - US ECHO Institute, QLD ECHO Superhub and Project ECHO Asia-Pacific ECHO Collaborative

Monitoring and evaluation

- ✓ **Good monitoring and feedback** strategies for continuous quality improvement including regular meetings of Project ECHO Hub team, participant feedback through satisfaction surveys and regular meetings of the Strategic Advisory Committee

COVID-19 pandemic enabling context

- ✓ COVID-19 pandemic restrictions **was not a barrier to the implementation of the online Project ECHO community of practice (CoP)**
- ✓ It resulted in **less travel and inconvenience** for Project ECHO Hub team
- ✓ It **accelerated interest and confidence in using technology** for networking and education

For recommendations to improve the Project ECHO program for Series 3 see the main body of the report, **C.5.5, Page 56**. For considerations for WVPHN for planning and implementing Project ECHO programs in other health contexts see the main body of the report, **C.7, Page 57**.

A.4 Recommendations for the future development and implementation of high-quality Project ECHO programs

Recommendations for the future development and implementation of high-quality Project ECHO programs, informed by the participant and stakeholder consultation (interviews, workshop with WVPHN and partners, participant surveys and participant focus group) and the evidence from the peer-reviewed literature, are outlined in the table below.

| Recommendations for the future development and implementation of high-quality Project ECHO programs | |
|---|---|
| Evidence of need | <ul style="list-style-type: none"> ○ Assess the need for greater education and professional support related to the specific health context ○ Conduct a Learning Needs Analysis (LNA) |
| Resources and funding | <ul style="list-style-type: none"> ○ Ensure adequate resources (staff, IT support, remuneration of external facilitators or panel members) and external funding (if needed) to support implementation and sustainability |
| Governance and planning | <ul style="list-style-type: none"> ○ Establish clear goals and target group(s) for the Project ECHO program ○ Identify champions in Project ECHO related to the specific health context ○ Establish governance and communication arrangements ○ Allow time for pre-implementation planning and curriculum development |
| Stakeholder mapping and engagement | <ul style="list-style-type: none"> ○ Conduct stakeholder mapping and engage stakeholders to support Project ECHO curriculum development and implementation e.g. potential hub panel members, guest presenters, facilitator (if external) |

Recommendations for the future development and implementation of high-quality Project ECHO programs

| | |
|--|---|
| Recruitment strategy | <ul style="list-style-type: none"> ○ Develop a recruitment strategy for target group(s) to optimise participation ○ Engage potential partners to promote the program e.g. professional bodies, rural and remote agencies |
| Curriculum development | <ul style="list-style-type: none"> ○ Plan the curriculum prior to implementation ○ Provide core mandatory topics informed by the evidence; specialised topics in response to needs; and allow for unanticipated, emerging topics ○ Develop guidance document and template for didactic presentations related to format, relevance to practice and learning objectives |
| Continuing Professional Development (CPD) | <ul style="list-style-type: none"> ○ Establish CPD points for target group(s) through professional associations (e.g. for participation in an ECHO session, case presentation, completion of evaluation survey and/or e-assessment) |
| Support for case presentations | <ul style="list-style-type: none"> ○ Engage and support target group(s) to deliver case presentations ○ Provide incentives such as CPD points ○ Consider developing a written summary of recommendations (with input from WVPHN staff and hub panel members) |
| Upskilling in Project ECHO | <ul style="list-style-type: none"> ○ Ensure WVPHN staff, external facilitators and panel members understand the key principles and elements of the Project ECHO model and implementation considerations ○ Ensure WVPHN staff have experience implementing a Project ECHO program and/or WVPHN have the resources to upskill staff via ECHO 'immersion training' (QLD ECHO Superhub) ○ At a minimum ensure that WVPHN staff and hub panel members observe other Project ECHO sessions prior to implementation |
| Good communication | <ul style="list-style-type: none"> ○ Ensure good communication between facilitator and project co-ordinator/officer; facilitator and hub panel members/guest presenters; and Project ECHO Hub team and Strategic Advisory Committee |
| Streamline and standardise administration processes | <ul style="list-style-type: none"> ○ Streamline and standardise processes to improve efficiency and ensure privacy is maintained (e.g. template emails to participants) |
| Monitoring and evaluation | <ul style="list-style-type: none"> ○ Develop a monitoring and evaluation framework prior to implementation ○ Establish clear objectives for monitoring and evaluating the Project ECHO program ○ Include stakeholder and participant feedback to support continuous quality improvement of the Project ECHO program and to assess the effectiveness of the program (participant satisfaction and impact) |

Recommendations for the future development and implementation of high-quality Project ECHO programs

Support from Project ECHO 'implementers' community of practice

- Seek the support of the QLD ECHO Superhub and Project ECHO Asia-Pacific ECHO Collaborative in the planning and implementation phases
- Engage and/or collaborate with other institutions implementing Project ECHO programs in Australia especially other Primary Health Networks

A.5 Conclusion

Project ECHO model is a suitable and effective Workforce Learning Platform for WVPHN

The Project ECHO Model is a **suitable** Workforce Learning Platform for WVPHN, perceived by WVPHN as:

- **Appropriate** for primary care providers to improve knowledge, confidence, and professional support in targeted health contexts
- **Aligned** to WVPHN values and Strategic Directions (2020-2023) with the **buy-in of executive staff** at WVPHN and supported by 'Project ECHO champions' in WVPHN
- **Acceptable** in terms of WVPHN understanding the Project ECHO principles and the complexities of implementing the Project ECHO model
- **Feasible** to implement in terms of WVPHN using technology to implement the Project ECHO model, WVPHN leveraging established networks of stakeholders to support Project ECHO curriculum development and implementation, WVPHN having sufficient resources for implementation (staff, IT support, in-kind support from panel members), and WVPHN having the capacity to implement ongoing quality improvement
- **Adaptable** to the local WVPHN context to ensure appropriateness and successful implementation

The Project ECHO model has been shown to be an **effective** Workforce Learning Platform for WVPHN. It has been shown to be:

- **Acceptable** among primary care providers with a high level of satisfaction demonstrated related to the content and format of the Project ECHO program, and attendance in the program meeting the expectations of WVPHN and partners
- **Effective** in terms of improving perceived knowledge, confidence, perceived quality of patient care, and professional support of participants

Overall, Project ECHO (Persistent Pain) Series 2 has met the expectations of WVPHN and partners in terms of attendance and satisfaction with the program and has been shown to be an effective program in terms of improving perceived knowledge, confidence, perceived quality of patient care, and professional support of participants. The evaluation has provided WVPHN and partners with recommendations to improve the Project ECHO program for Series 3, considerations for WVPHN for planning and implementing Project ECHO programs in other health contexts, and recommendations for the future development and implementation of high-quality Project ECHO programs.

Part B. Aims and methods

B.1.1 Project ECHO model

Project Extension for Community Health Outcomes (ECHO) was originally developed by the University of New Mexico's Health Science Centre to build the capacities of primary care providers and to increase access to specialist care in rural and underserved populations.¹

Project ECHO uses a "Hub" and "Spoke" model to promote knowledge exchange (using didactics and case-based telementoring) between a multidisciplinary panel of health professionals, typically located in tertiary hospital settings, ("the hub") and primary care providers (the "spokes").²

Project ECHO expands primary care provider capacity to manage complex diseases by sharing knowledge, disseminating best practices, and building a community of practice. The model has expanded rapidly with over 140 Project ECHO programs established globally (as of 2018).³ Project ECHO has been implemented to address chronic pain management in the USA and Canada.⁴⁻⁹

The Project ECHO model is based on both situational and social cognitive learning theories and enables participating PCPs to identify learning gaps and reflect critically on their learning process.³ It enables problem-centred learning to occur in the clinical context where new knowledge is to be applied; it promotes interprofessional collaboration among participants; it models best-practice care; it supports learners to feel that they are benefiting and improving their self-efficacy; and it allows participants to receive positive feedback and reinforcement from clinical opinion leaders.³

A key feature of Project ECHO is its flexibility, requiring adherence to only a few principles: the initiative must: (1) use technology to leverage scarce resources; (2) use case-based learning to master complexity-learning loops; (3) share best practice to improve knowledge (to increase desired outcomes); and (4) use a web-based database (iECHO) to monitor outcomes.³

Rapid review of the Project ECHO peer-reviewed literature

A rapid review of the Project ECHO peer-reviewed literature was conducted as part of this evaluation to inform the Evaluation Framework for Project ECHO (Persistent Pain), the Program Logic Project ECHO (Persistent Pain), considerations for implementing Project ECHO programs in other health contexts, and recommendations for high quality Project ECHO programs.

The purpose of the rapid review was to identify evidence related to:

1. Implementation and evaluation frameworks for Project ECHO programs
2. The impact of Project ECHO programs (including systematic reviews only)
3. Enablers to implementation, participant satisfaction and impact of Project ECHO programs related to pain management (including systematic reviews, experimental/quasi-experimental studies, and observational studies such as mixed method and qualitative studies)

See **Appendix 7, Page 101** for the rapid review of the Project ECHO peer-reviewed literature.

B.1.2 Project ECHO (Persistent Pain)

Western Victoria Primary Health Network (WVPHN) in partnership with the Transport Accident Commission (TAC) and WorkSafe Victoria ('WorkSafe') implemented Project ECHO (Persistent Pain) Series 1 in February-June 2020 and Series 2 in July-December 2020.

The following **health and service issues related to persistent pain** were identified by WVPHN and partners:

- ✓ High burden of chronic pain on individuals, families, and society
- ✓ Lack of specialist services in western Victoria and long waiting lists for pain specialist services in metropolitan centres
- ✓ High opioid prescribing in western Victoria
- ✓ Lack of confidence and skills among primary care providers to provide a biopsychosocial

approach to chronic pain

- ✓ Delayed recovery and delayed return to work for some injured workers
- ✓ Persistent pain and poor mental health for some people after transport-related major trauma

*For more information about the 'problem' that WVPHN and partners are aiming to address in the Project ECHO program see the Program Logic Project ECHO (Persistent Pain) in **Appendix 2, Page 67**.*

B.1.3 Aims and objectives of Project ECHO (Persistent Pain)

The **aims** of the Project ECHO (Persistent Pain) program are to:

- i. Improve the competencies of primary care clinicians in best practice pain management to improve outcomes of people with chronic pain
- ii. Reduce healthcare disparities in the provision of pain care services between primary and tertiary health care and between metropolitan, rural and regional locations
- iii. Create a 'virtual community of practice' amongst primary care providers from different disciplines to facilitate the provision of co-ordinated, but geographically separated, multidisciplinary or interdisciplinary services.

The specific **objectives** of the Project ECHO (Persistent Pain) program are to:

- i. Improve knowledge, competence and performance of Project ECHO participants related to pain management
- ii. Improve knowledge, competence and performance of Project ECHO participants related to work and transport injuries and compensable settings
- iii. Improve knowledge-sharing and foster a sense of community related to pain management

B.1.4 Evaluation Framework for Project ECHO (Persistent Pain)

The Evaluation Framework for Project ECHO (Persistent Pain) was developed by the evaluation team in collaboration with WVPHN and partners. The Evaluation Framework describes the objectives of the evaluation of Project ECHO (Persistent Pain) Series 2 and the evaluation design.

B.1.4.1 Objectives of the evaluation of Project ECHO (Persistent Pain)

The **primary objectives** of the evaluation are to:

- i. Develop an evaluation framework and program logic that could be applied to other series of Project ECHO (Persistent Pain) and be adapted to other Project ECHO programs.
- ii. Describe the implementation and curriculum of Project ECHO (Persistent Pain)
- iii. Assess participant outcomes of Project ECHO (Persistent Pain)
- iv. Provide opportunities for discussion between WVPHN, partners and the evaluation team during implementation aligned to a continuous improvement model
- v. Highlight key learnings and make recommendations for improvements in the implementation and curriculum of Project ECHO (Persistent Pain)

The **secondary objectives** of the evaluation are to:

- i. Explore whether the Project ECHO model is a suitable and effective Workforce Learning Platform for WVPHN
- ii. Explore how the Project ECHO model could be replicated to other health contexts
- iii. Make recommendations for the future development and implementation of high-quality Project ECHO programs

B.1.4.2 Theoretical frameworks

Two theoretical frameworks informed the evaluation outcomes. The implementation outcomes are informed by the work by Serhal and colleagues in a recent US implementation study of Project ECHO,³ using the validated implemented framework of Damschroder's (2009) Consolidated Framework for Implementation Research (CFIR).¹⁰ The participant outcomes are informed by Moore's Framework - An Outcome Framework for Planning and Assessing Continuing Medical Education (CME) Activities,¹¹ commonly used in the evaluation of Project ECHO programs and applied in a systematic review of the effectiveness of the Project ECHO model.²

B.1.4.3 Outcomes of the evaluation

The outcomes of the evaluation include:

a. Implementation outcomes

- a) Description of governance and communication arrangements
- b) Curriculum development and topics selected
- c) Project ECHO activities
- d) Changes to planned implementation
- e) Implementation successes and challenges
- f) Enablers to implementation
- g) Fidelity to Project ECHO Principles
- h) Feasibility
- i) Resourcing
- j) Perceived acceptability and appropriateness of Project ECHO as a capacity building initiative for WVPHN
- k) Considerations for adapting Project ECHO (Persistent Pain) to other health contexts

b. Participant outcomes

- a) Participation
- b) Satisfaction with the content and format
- c) Perceived knowledge gaps and participant expectations
- d) Self-reported outcomes related to learning, confidence, competence, performance, professional support, and patient benefits

B.1.4.4 Data sources for the evaluation

Data sources for the evaluation include the following:

- i. Rapid review of the implementation and evaluation literature related to Project ECHO with a focus on chronic pain
- ii. Program records and relevant documentation provided by WVPHN
- iii. Stakeholder consultation:
 - a) Online interviews with WVPHN staff and partners (project officer/coordinator, facilitator, partner representative) prior to, and on completion, of the series (N=6 interviews)
 - b) Online interviews with Hub panel members (N=3 interviews including partner representative above^v)
 - c) Online interviews with QLD Superhub representatives (N=1 interview with two representatives)
 - d) Program Logic Project ECHO (Persistent Pain) workshop discussion with WVPHN staff and partners

^v Due to a lack of availability of Hub panel members due to time constraints, only the GP and the partner representative on the panel were able to participate in interviews for the evaluation

- e) Evaluation Framework discussion with WVPHN staff and partners
 - f) Regular communication with WVPHN project officer/coordinator and other WVPHN staff
- iv. Participant consultation and surveys:
- a) Online enrolment survey (prior to attending an ECHO session)
 - b) Online satisfaction surveys (after each ECHO session)
 - c) Online participant outcome survey (on completion of Series 2)
 - d) Online focus group with participants (on completion of Series 2)

Appendix 1, Page 65 outlines the objectives of the evaluation and related methods.

B.1.4.5 Development of evaluation tools

WVPHN and partners developed the enrolment survey and satisfaction survey tools. The evaluation team developed the following evaluation tools with feedback from WVPHN staff and partners: stakeholder interview schedules, focus group interview schedule and participation outcome survey. *The evaluation tools are included in **Appendix 3, Page 74**.*

B.1.4.6 Data collection

- i. Online enrolment survey
 - Potential participants were asked to complete an enrolment survey accessible via the WVPHN website prior to attending an ECHO session
 - WVPHN provided the Excel response data to the evaluation team
- ii. Online satisfaction surveys
 - Participants were sent a link to an online satisfaction survey after each ECHO session
 - WVPHN provided the Excel response data to the evaluation team
- iii. Online participant outcome survey
 - Potential participants were sent an email and information sheet (*see **Appendix 3, Page 95***) prior to the last ECHO session of Series 2 inviting them to participate in the online participant outcome survey
 - Participants were sent a link to the online survey during the last ECHO session of Series 2 and in the follow-up email to all participants (who had attended at least one ECHO session) after the series
 - The survey was administered through REDCap, a secure web platform for building and managing online databases and surveys.¹²
- iv. Online focus group
 - Potential participants were sent an email and information sheet (*see **Appendix 3, Page 95***) prior to the last ECHO session of Series 2 inviting them to participate in the online focus group
 - The online focus group was conducted via ZOOM immediately after the didactic presentation in the last ECHO session of Series 2 to optimise participation in the focus group
 - The focus group was co-facilitated by the evaluation lead (SDM) and another member of the evaluation team (FB), and a third member of the evaluation team (PW) took notes
 - Participants were encouraged to use the Chat function as well as to speak during the discussion
 - The focus group was recorded with the permission of participants and the audio-file was transcribed verbatim
 - Chat data was downloaded at the end of the focus group

B.1.4.7 Data analysis

Data analysis included:

- i. Quantitative analysis:

- Raw data enrolment and satisfaction survey data (provided in Excel spreadsheets) and , participant outcome survey data (downloaded from REDCap)
 - Data cleaning and analysis was conducted using Statistical Analysis System (SAS) 9.4.
 - Descriptive statistics (n, %) were calculated in the areas of interest, for each ECHO session and across Series 2
- ii. Qualitative data:
- Qualitative data included the focus group transcript, Chat data, and notes; and the open questions in the enrolment survey, satisfaction surveys and participant outcome survey
 - Thematic analysis was undertaken for each of the methods and across methods: themes and sub-themes were derived from the data by the evaluation lead (SDM) and reviewed by another member of the evaluation team (PW) for validation, resolving any disagreements by discussion and consensus

*For more information about the Evaluation Framework see **Appendix 1, Page 65.***

Part C. Evaluation results

C.1 Primary objective i: To develop an evaluation framework and program logic that could be applied to other series of Project ECHO (Persistent Pain) and be adapted to other Project ECHO programs

C.1.1 Evaluation Framework for Project ECHO (Persistent Pain)

The Evaluation Framework was developed to inform the evaluation of Project ECHO (Persistent Pain) Series 2. *For more information about the Evaluation Framework see **B.1.4, Page 18** and **Appendix 1, Page 65**.*

C.1.2 Program Logic for Project ECHO (Persistent Pain)

The Program Logic Project ECHO (Persistent Pain) was developed to guide the implementation and evaluation of Project ECHO Series 3; and to inform other Project ECHO programs implemented by WVPHN for other health conditions, for example, Alcohol and Other Drugs (AOD) and mental health.

A logic model is a graphic representation of the theory of change that illustrates the linkages among program resources, activities, outputs, audiences, and short-, intermediate-, and long-term outcomes related to a specific problem or situation.^{vi} In other words, a logic model is a graphic representation of a program showing the intended relationships between investments and results.^{vii}

The Program Logic Project ECHO (Persistent Pain) is informed by:

- i. The aims and objectives of Project ECHO (Persistent Pain) as outlined in the Evaluation Framework
- ii. Evidence related to the implementation and evaluation of Project ECHO programs from the peer-reviewed literature
- iii. Relevant data about local health and services needs related to chronic pain (WVPHN needs assessments, other data)
- iv. Interviews with WVPHN staff and partners (WorkSafe Victoria and the Transport Accident Commission/TAC), hub panel members and QLD ECHO Superhub representatives
- v. A workshop with the external evaluation team, WVPHN staff and partners (WorkSafe and TAC)^{viii}

*For more information about the Program Logic Project ECHO (Persistent Pain) see **Appendix 2, Page 67**.*

^{vi} Project ECHO® Evaluation 101: A practical guide for evaluating your program. (April 2017)

^{vii} Taylor-Powell, E., & Henert, E. (2008) Developing a logic model: Teaching and training guide. Madison, WI: University of Wisconsin Extension, Cooperative Extension, Program Development and Evaluation. <http://www.uwex.edu/ces/pdande>

^{viii} Attendees included the external evaluation team (Dr Simone De Morgan, Professor Fiona Blyth, Dr Carmen Huckel Schneider and Pippy Walker), WVPHN staff (Fiona Quigley, Natalie Love, Haley Remington, Jacqueline Bell, Jemma Missbach and Katrina Martin) and partners (Dr Anne Daly, Matt Pearce and Lyndall McNeil)

C.2 Primary objective ii: To describe the implementation and curriculum of Project ECHO (Persistent Pain)

C.2.1 Background

Western Victoria Primary Health Network (WVPHN) in partnership with the Transport Accident Commission (TAC) and WorkSafe Victoria ('WorkSafe') implemented Project ECHO (Persistent Pain) Series 1 in February 2020. Series 2 commenced in July 2020 in partnership with WorkSafe and TAC.

The Menzies Centre for Health Policy and Economics, University of Sydney was commissioned on 4 September 2020 to undertake the evaluation.

Other Project ECHO programs implemented by WVPHN include:

- *Project ECHO (COVID-19)*: WVPHN initiated Project ECHO COVID-19 sessions to help connect local health practitioners with relevant experts and improve information exchange to support wider efforts to manage the COVID-19 pandemic. Weekly teleECHO sessions are open to all primary care clinicians in the WVPHN catchment region.
- *Project ECHO (Opioid Management)*: Primary Care Connect (primary funding body) and WVPHN has also implemented the Project ECHO (Opioid Management) program prior to Project ECHO (Persistent Pain) Series 1 to address aspects of opioid management in primary care. The specialist hub team is based at St Vincent's Hospital, Melbourne, led by the Department of Addiction Medicine and includes addiction medicine specialists, psychiatrists, specialist nurses and allied health.

C.2.2 Governance of Project ECHO (Persistent Pain)

The Project ECHO (Persistent Pain) program is managed by the Pharmacotherapy Program within the Service and System Integration Directorate, WVPHN. It is overseen by a Strategic Advisory Committee with representation from WVPHN (Pharmacotherapy; Workforce Development) and partner organisations (WorkSafe and TAC).

Good governance and communication arrangements have been demonstrated for Series 2

The Project ECHO Hub Team includes the WVPHN facilitator and project officer/coordinator, and four hub panel members including: 1) a GP; 2) a physiotherapist and advisor to WorkSafe and TAC who has undertaken 'immersion' ECHO training in the USA; 3) a pain medicine specialist; and 4) a psychologist.

A high level of enthusiasm and commitment of WVPHN staff, partners and hub panel members has been demonstrated to the Project ECHO model and Series 2

Project ECHO (Persistent Pain) Series 2 involved 10 x one-hour, approximately fortnightly sessions between July and December 2020. The ECHO session format has two components: firstly, a didactic presentation by either a hub panel member or a guest speaker; and secondly, a case presentation, mentoring by hub panel members and group discussion.

C.2.3 Recruitment strategy

Primary care providers practising in regional areas of western Victoria were the target population for the Project ECHO (Persistent Pain) program. The recruitment strategy was developed over Series 2 and included the following:

- Promotion to Series 1 enrolees
- WVPHN newsletters, WVPHN website and WVPHN Practice Facilitator Communique
- Networks of WorkSafe, TAC and hub panel members

- Agencies such as Australian Medical Association (AMA) Victoria, Royal Australian College of General Practitioners (RACGP), Royal Doctors Association of Victoria, Australian Psychological Society, Australian Physiotherapy Association (APA), and Exercise & Sports Science Australia (ESSA)
- Other Primary Health Networks in Victoria
- Listed on Psychweek website events (late October)
- TAC News (TAC weekly digital staff newsletter)

C.2.4 Curriculum development and didactic presentation planning

Didactic topics were selected in response to the Learning Needs Analysis (LNA) conducted in December 2019, the expert advice of the hub panel members, the interests of the partners (WorkSafe and TAC), and emerging requests of participants

The didactic presentations were developed by hub panel members and/or guest presenters, throughout Series 2 as required. Guest presenters had content matter expertise and were selected from the networks of WVPHN, WorkSafe and TAC. Hub panel members worked with guest presenters to ensure that presentations were aligned to current evidence and best practice.

Continuing Professional Development (CPD) points for participation in Project ECHO (Persistent Pain) were established after ECHO Session 8 [Royal Australian College of General Practitioners (RACGP) and the Australian College of Rural and Remote Medicine (ACRRM)], as incentives for GPs to participate in the program.

The topics for the didactic presentations and the professions and roles of didactic and case presenters are outlined in **Table 1**.

Table 1: Topics for the didactic presentations and the professions and roles of didactic and case presenters

| Series 2, 2020 | | Didactic Topic | Didactic Presenter - Profession | Case Presenter - Profession |
|----------------|--------------|--|--|--|
| 1 | 22 July | Pain Education | Hub panel member - GP with Special Interest in Pain Education and Management | No case |
| 2 | 5 August | Chronic Low Back Pain (Session 1) | Guest presenter - Rheumatologist and clinical epidemiologist | Hub panel member - Physiotherapist and advisor to WorkSafe and TAC |
| 3 | 19 August | Chronic Low Back Pain (Session 2) | Guest presenter - Pain specialist (FFPMANZCA) | Hub panel member - GP with Special Interest in Pain Education and Management |
| 4 | 2 September | Sleep Management | All hub panel members - GP, Pain medicine specialist (Barwon Health), physiotherapist, psychologist | Physiotherapist |
| 5 | 16 September | Graded Exposure | Hub panel member - psychologist | Physiotherapist |
| 6 | 14 October | Compensable Clients - telehealth, new services available, provision of resources | Two guest presenters - TAC / WorkSafe: GP and occupational physician | Fictional case study- vimeo developed by TAC and WorkSafe |
| 7 | 28 October | Pelvic Pain (Session 1) | Two guest presenters - Specialist Women's, Men's & Pelvic Health Physiotherapist and Obstetrician Gynecologist | Physiotherapist |

| Series 2, 2020 | | Didactic Topic | Didactic Presenter - Profession | Case Presenter - Profession |
|----------------|-------------|-------------------------|--|---|
| 8 | 11 November | Pelvic Pain (Session 2) | Guest presenter - Director of Pain Matrix Eastern Head of Pain Service at Royal Women's Hospital Guest hub panel member - Specialist Women's, Men's & Pelvic Health Physiotherapist and Obstetrician Gynecologist | Hub panel member - Pain medicine specialist (Barwon Health) |
| 9 | 25 November | Medical Cannabis | Hub panel member - Pain medicine specialist (Barwon Health) | Physiotherapist |
| 10 | 2 December | Graded Motor Imagery | Hub panel member - Physiotherapist and advisor to WorkSafe and TAC | No case |

C.2.5 Activities

The activities of Project ECHO (Persistent Pain) Series 2 are outlined in **Figure 1**.

| | |
|--|---|
| 10 Project ECHO sessions | •Approximately biweekly (every two weeks) basis |
| 10 didactic presentations | •Didactic presentations were delivered by multidisciplinary hub panel members and guest presenters with subject matter expertise |
| 7 guest presenters for didactics | •Guest presenters delivered (or co-delivered) a didactic presentation |
| 8 case presentations | •One case was presented in each session apart from Session 1 and 10 |
| 4 primary care providers presented cases and received hub panel feedback | •Primary care providers (not including hub panel members) presented cases and received hub panel feedback - all primary care providers were physiotherapists |
| 1 vimeo case presentation | •Vimeo case presentation was developed by WorkSafe and TAC |
| 3 multidisciplinary hub panel members presented cases | •Hub panel members (GP, physiotherapist, pain medicine specialist) presented cases |
| 1 primary care provider who presented a case received a written summary of the recommendations | •WVPHN facilitator who develop summaries no longer working at WVPHN after Session 4 |
| After each session, primary care providers received follow-up information | •Primary care providers (and other participants) received information, a copy of the didactic presentation and links to relevant resources after each session |

Figure 1: Activities of Project ECHO (Persistent Pain) Series 2

C.2.6 What is invested / resources

The costs of implementing Project ECHO (Persistent Pain) Series 2 have not been outlined in this evaluation report. For information about what is invested / resources see the Program Logic Project ECHO (Persistent Pain) in **Appendix 2, Page 67**.

C.3 Primary objective iii: To assess participant outcomes of Project ECHO (Persistent Pain)

C.3.1 Participation in Series 2

C.3.1.1 Participant profile

- Eight-seven health professionals participated in at least one ECHO session in Series 2.
- The vast majority of health professionals who participated in Series 2 were primary care providers (94%; 82/87) from a range of professional disciplines including: General practitioners, physiotherapists, exercise physiologists, occupational therapists, osteopaths, psychologists, nurses or nurse practitioners, and pharmacists.

Completion of enrolment survey

- The majority of participants (health professionals excluding observers) who attended at least one ECHO session, completed the enrolment survey (n=74; 85%). Some participants did not complete the enrolment survey if they received the invitation via a colleague (although WVPHN staff encouraged all attendees to complete an enrolment survey). The WVPHN project officer/coordinator was able to obtain information for most participants related to professional discipline.

Types of health professionals

- Approximately one third of participants were physiotherapists (n=26; 33%) and fifteen percent were general practitioners (n=12; 15%). See **Figure 2** for the range of health professionals included in Series 2.
- Forty-one percent of participants who completed the enrolment survey did not attend an ECHO session, with GPs having the highest non-attendance rate with almost half not attending after enrolment (n=11; 49% of GPs who enrolled). See **Figure 3**.

Patient cases

- Of participants that attended at least one ECHO session, approximately one third managed 10-30 patients with persistent pain (n=27; 36%); one-third managed greater than 30 patients (n=25; 33%); with the remainder managing less than 10 patients (n=22; 30%).
- Enrolees into the Project ECHO program from ECHO Sessions 6 onwards were asked whether they had treated any WorkSafe, or TAC clients in the past 12 months. Of the thirty-one participants who *enrolled* from this time, nine participants (29%) reported they had treated WorkSafe clients and eight participants (26%) reported they had treated TAC clients in the past 12 months.

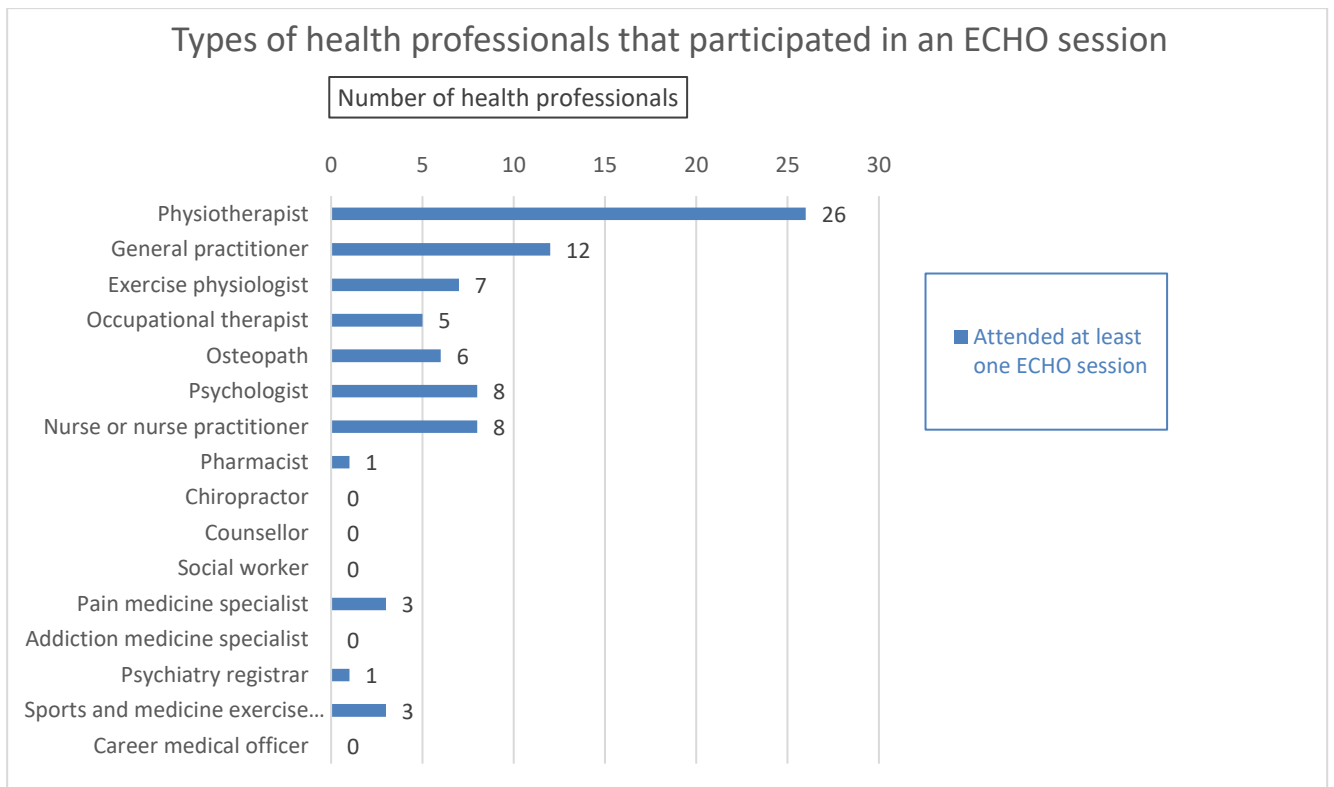


Figure 2: Types of health professionals that participated in an ECHO session in Series 2

Note: Seven participants did not respond to the question related to type of health profession.

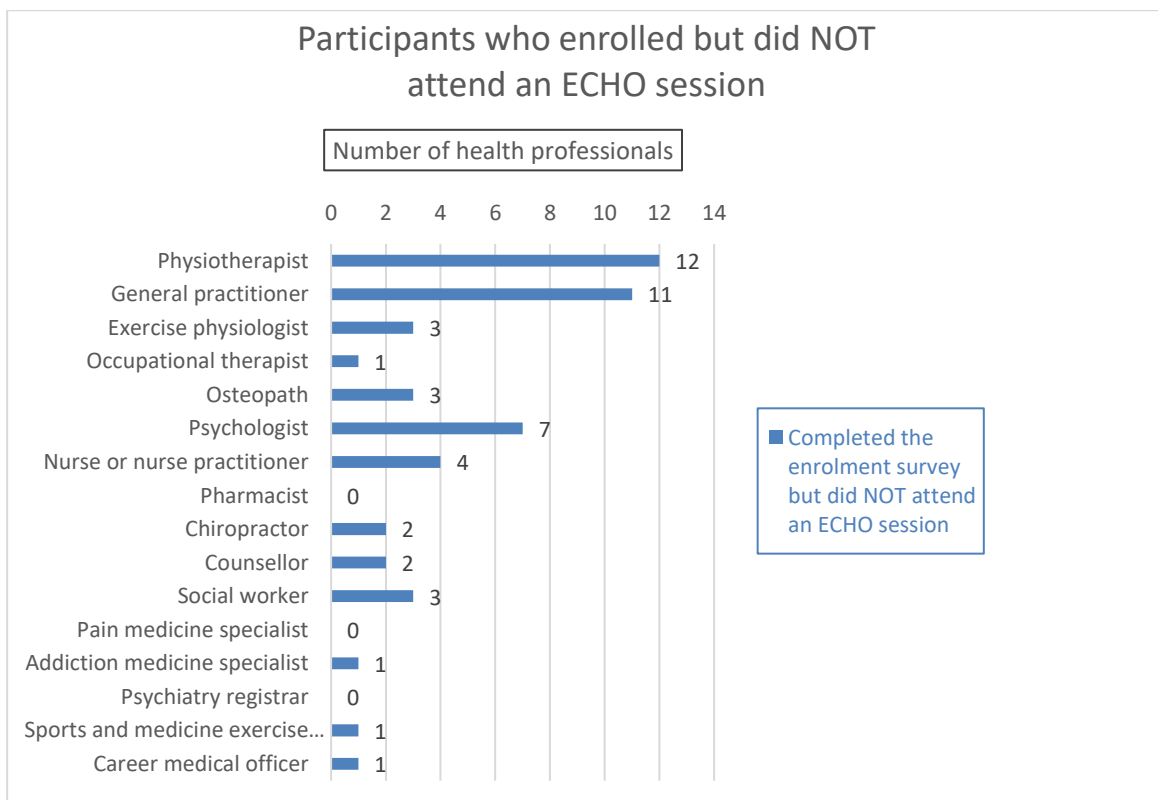


Figure 3: Participants who enrolled but did NOT attend an ECHO session in Series 2

Work location

- All participants worked in Victoria, except one participant who worked in the Albury area in New South Wales, one participant who worked in Perth and two participants who worked in northern Tasmania.
- More than half of participants worked in the Western Victoria PHN catchment (n=48; 58%); twenty-five percent (n=21) worked in Melbourne; and twelve percent (n=10) worked in other parts of Victoria (including Bendigo, Swan Hill, Mildura, Central Northern Victoria including Wodonga, and South Eastern Victoria).
- Approximately two thirds of participants who worked in western Victoria (n=48), worked in the City of Greater Geelong (n=32; 67%). See **Table 2** for more information about location of participants in western Victoria.

Note: total number of participants for postcode data analysis is 83 as six participants did not respond to the question about postcode and two participants provided two postcodes each.

Table 2: WVPHN regions represented by participants that attended at least one ECHO session (n=48)

| WVPHN Shire* | Number of participants (workplace postcode) |
|--------------------|---|
| Ararat | - |
| Ballarat* | 1 (3350) |
| Central Goldfields | - |
| Colac-Otway | 1 (3249) |
| Corangamite | - |
| Glenelg | - |
| Golden Plains | - |
| Greater Geelong* | 32 in total = 18 (3220), 3 (3216), 4 (3212), 3 (3215), 1 (3214), 2 (3219), 1(3224) |
| Hepburn | 1 (3461) |
| Hindmarsh | 3 (3418) |
| Horsham* | - |
| Moorabool | - |
| Moyne | 2 (3284) |
| Northern Grampians | 4 (3380) |
| Pyrenees | - |
| Queenscliffe | - |
| Southern Grampians | - |
| Surf Coast | 2 (3228) |
| Warranambool* | 2 (3280) |
| West Wimmera | - |
| Yarriambiack | - |

*Regional centres of Western Victoria PHN



Figure 1: Western Victoria PHN Regional Centres

See **Appendix 4, Page 97** for the location maps of participants.

C.3.1.2 Participation in Series 2

- The number of participants attending each ECHO session steadily increased over Series 2, beginning with eighteen participants in Session 1 and increasing to the maximum of forty participants at Session 7, with a decrease in participation in Session 8-10 with twenty-six participants at Session 8 and dropping to twenty participants at Session 10. See **Figure 4**.

- The average number of participants per ECHO session was thirty participants across Series 2.
- Over Series 2, there were in total 303 attendees, noting many were repeat participants. See **Figure 4**.
- On average, seventy-seven percent of participants were repeat participants (i.e. participant had attended at least one previous ECHO session) across the series. See **Figure 5**.
- Eight-seven health professionals participated in at least one ECHO session in Series 2.
- The average number of ECHO sessions attended by participants was 3.5 ECHO sessions. See **Figure 6**.
- Only two percent (n=2) of participants attended all 10 ECHO sessions. See **Figure 6**.

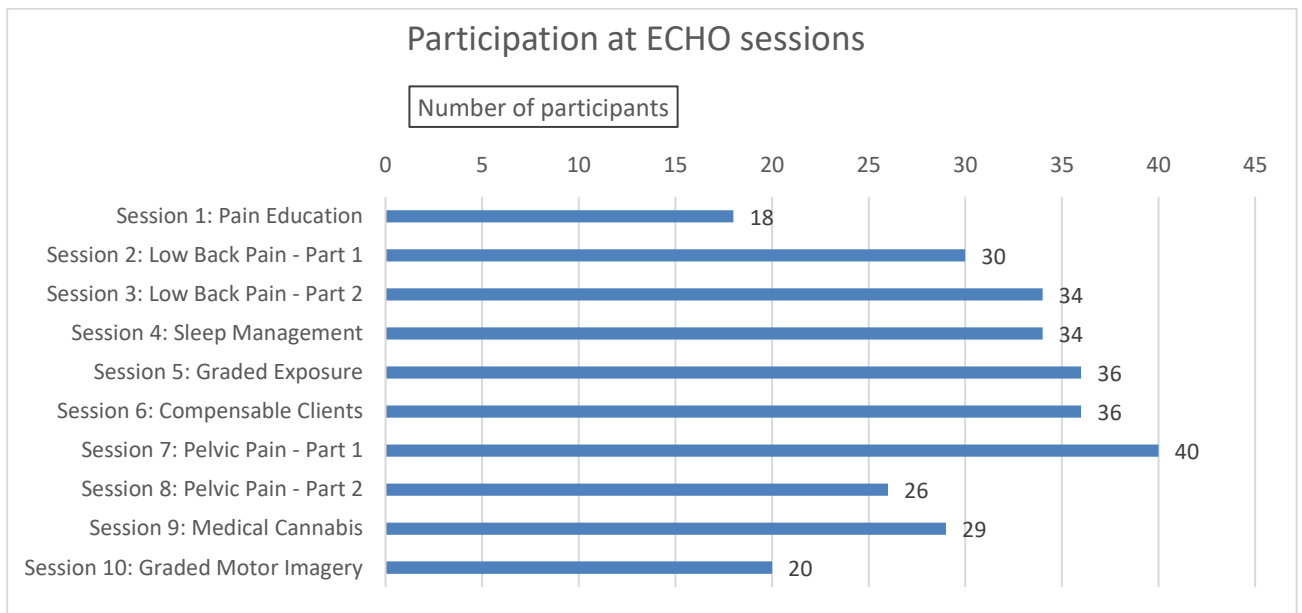


Figure 4: Number of participants in each ECHO session in Series 2

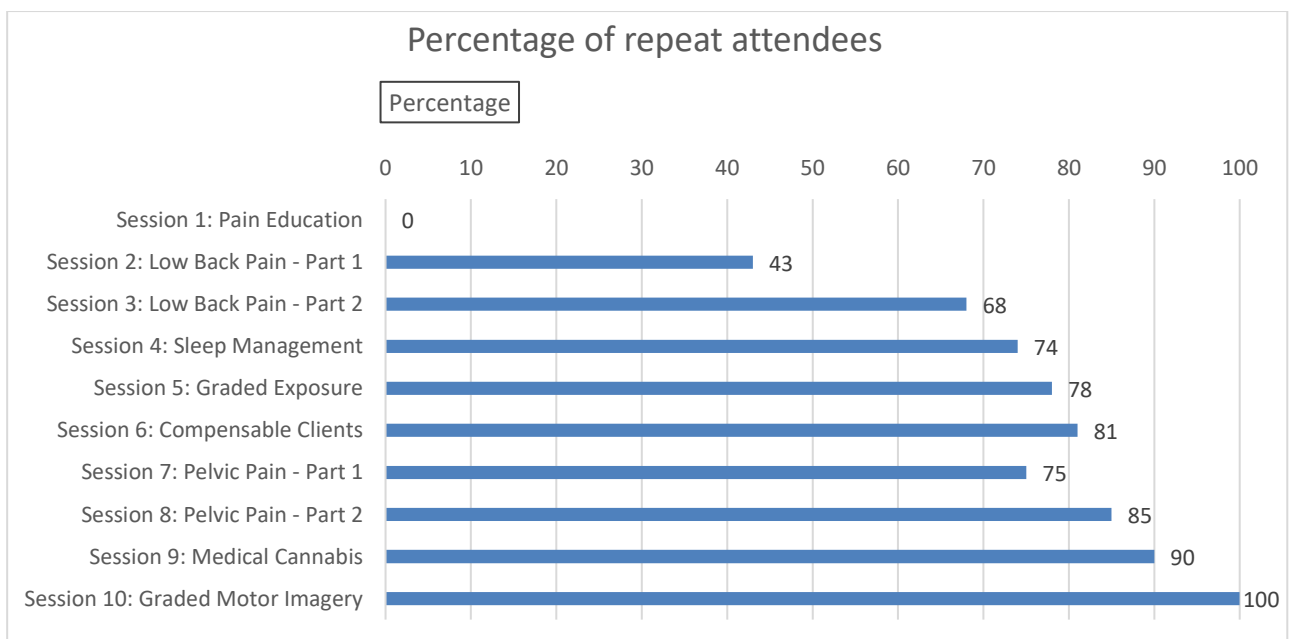


Figure 5: Repeat attendance at ECHO sessions in Series 2

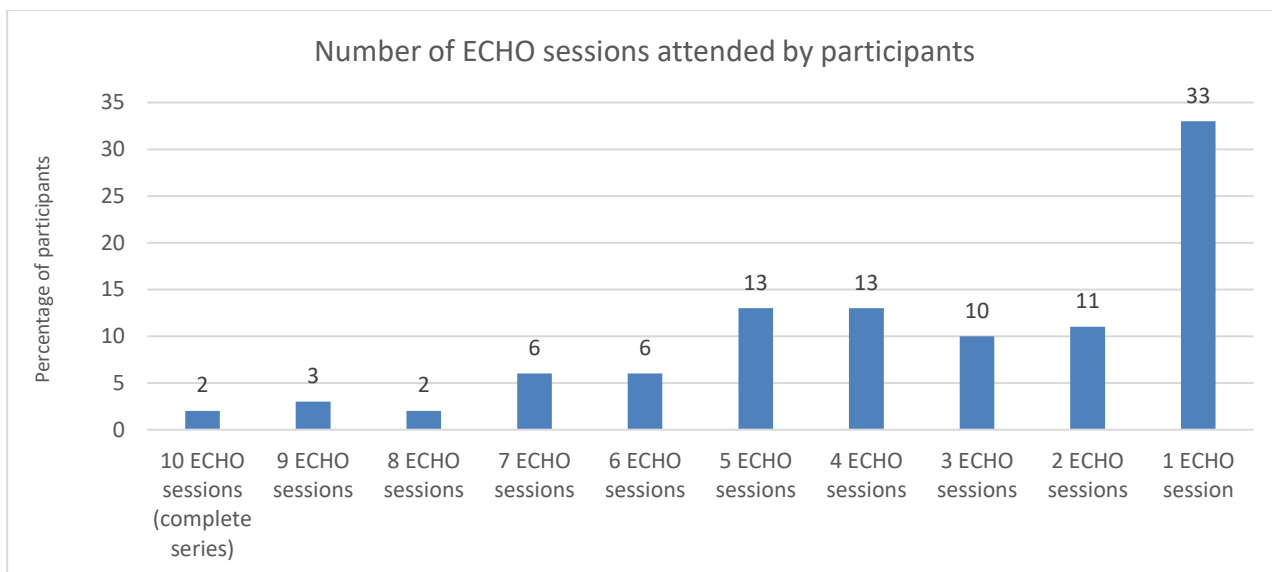


Figure 6: Number of ECHO sessions attended by participants in Series 2

C.3.2 Satisfaction in Series 2

A high level of satisfaction with Project ECHO Series 2 has been demonstrated (*satisfaction surveys and focus group feedback*).

C.3.2.1 Key findings from the satisfaction surveys

- The satisfaction survey tools were developed by WVPHN and partners.
- The average response rate for the satisfaction surveys over Series 2 was 45% (range 20-63%) as outlined in the **Table 3**.

Table 3: Response rate for satisfaction surveys

| ECHO session | Response rate |
|-----------------------------------|---------------|
| Session 1: Pain Education | 11/18 = 61% |
| Session 2: Low Back Pain - Part 1 | 19/30 = 63% |
| Session 3: Low Back Pain - Part 2 | 18/34 = 53% |
| Session 4: Sleep Management | 21/34 = 62% |
| Session 5: Graded Exposure | 18/36 = 50% |
| Session 6: Compensable Clients | 13/36 = 36% |
| Session 7: Pelvic Pain - Part 1 | 9/40 = 23% |
| Session 8: Pelvic Pain - Part 2 | 11/26 = 42% |
| Session 9: Medical Cannabis | 11/29 = 38% |
| Session 10: Graded Motor Imagery | 4/20 = 20% |
| Average response rate | 45% |

Satisfaction with the content

- The majority of survey respondents reported that each of the ECHO sessions delivered were 'excellent' or 'very good' in terms of balanced and objective, evidence-based content (average = 85%). The sessions that had the highest percentage of positive responses were Session 10 (Graded Motor Imagery) while noting a low response rate of only 4 survey respondents (n=4;

100%); Session 2 (Low Back Pain - Part 1) (n=18; 95%); and Session 1 (Pain Education) (n=10; 91%). See **Figure 7**.

- Almost all survey respondents reported that the **didactic** in each of the ECHO sessions was 'relevant' or 'partly relevant' to their work, apart from Session 7 (Pelvic Pain – Part 2) (n=7; 78%), (average = 98%). See **Figure 7**.
- Almost all survey respondents reported that the **case presentation** in each of the ECHO sessions was 'relevant' or 'partly relevant' to their work, apart from Session 7 (Pelvic Pain – Part 2) (n=7; 89%), (average = 97%). See **Figure 7**.

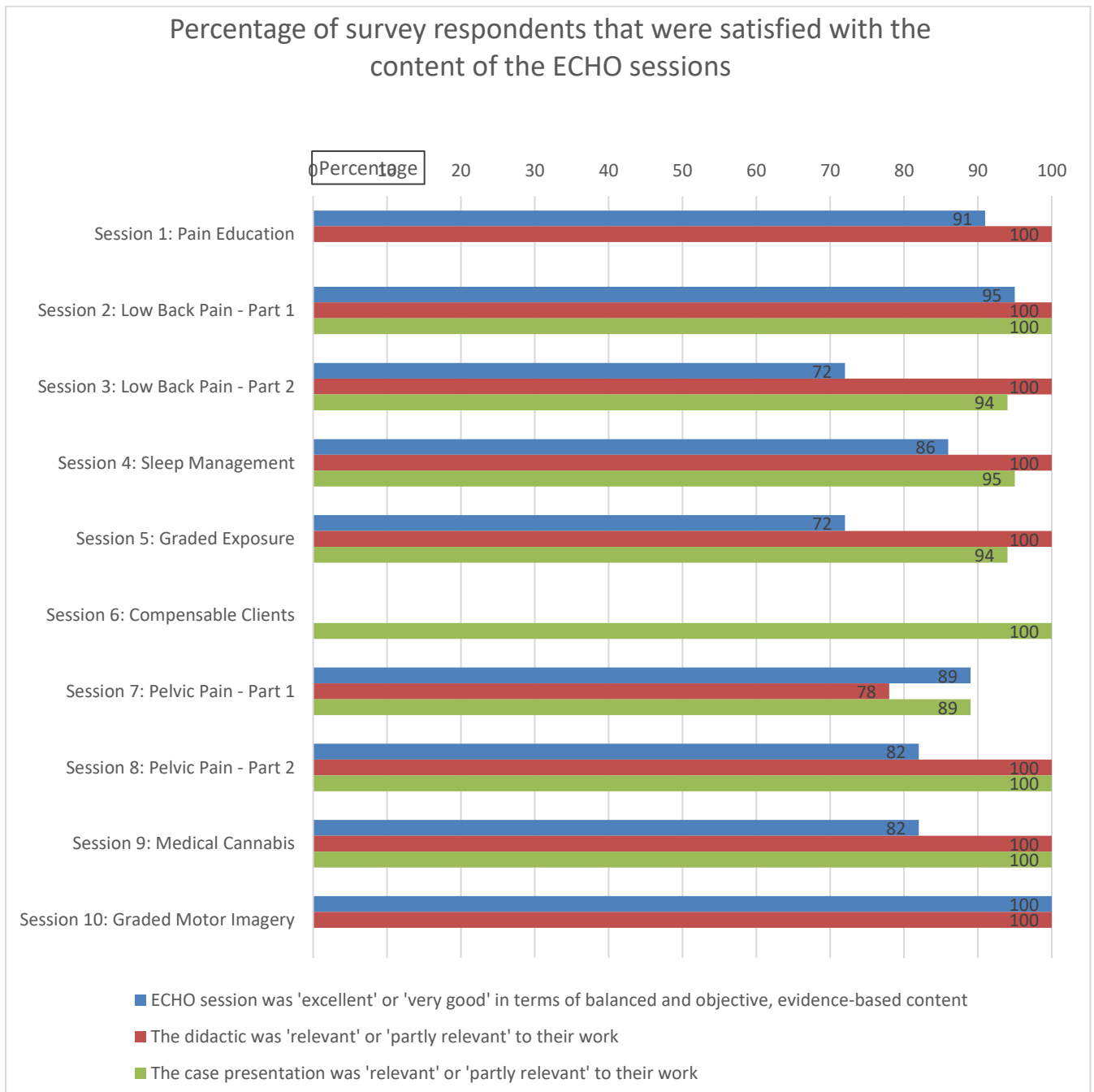


Figure 7: Satisfaction with the content of the ECHO sessions in Series 2

[Note, Session 6 was a fictional case study (vimeo) developed by TAC and WorkSafe.]

Satisfaction with the format

- The majority of survey respondents reported that each of the ECHO sessions were 'excellent' or 'very good' in terms of opportunities to ask questions (average = 80%). The sessions that had the highest percentage of positive responses were Session 2 (Low Back Pain - Part 1) (n=18; 95%); and Session 9 (Medical Cannabis) (n=10; 91%). The session that had the lowest percentage of positive responses was Session 8 (Pelvic Pain - Part 2) (n=7; 64%). See **Figure 8**.
- Approximately two-thirds of survey respondents reported that each of the ECHO sessions were 'excellent' or 'very good' in terms of the pace of the ECHO session (average = 64%). The sessions that had the highest percentage of positive responses were Session 2 (Low Back Pain - Part 1) (n=16; 84%) and Session 5 (Graded Exposure) (n=14; 78%). The session that had the lowest percentage of positive responses was Session 7 (Pelvic Pain – Part 1) while noting a low response rate of only 4 survey respondents (n=2; 22%). See **Figure 8**.
- The majority of survey respondents reported that each of the ECHO sessions were 'excellent' or 'very good' in terms of the presenter's ability to clearly communicate (average = 78%). The sessions that had the highest percentage of positive responses were Session 4 (Sleep Management) (n=21, 100%) and Session 2 (Low Back Pain - Part 1) (n=18; 95%). The session that had the lowest percentage of positive responses was Session 3 (Low Back Pain - Part 2) (n=7; 39%). See **Figure 8**.

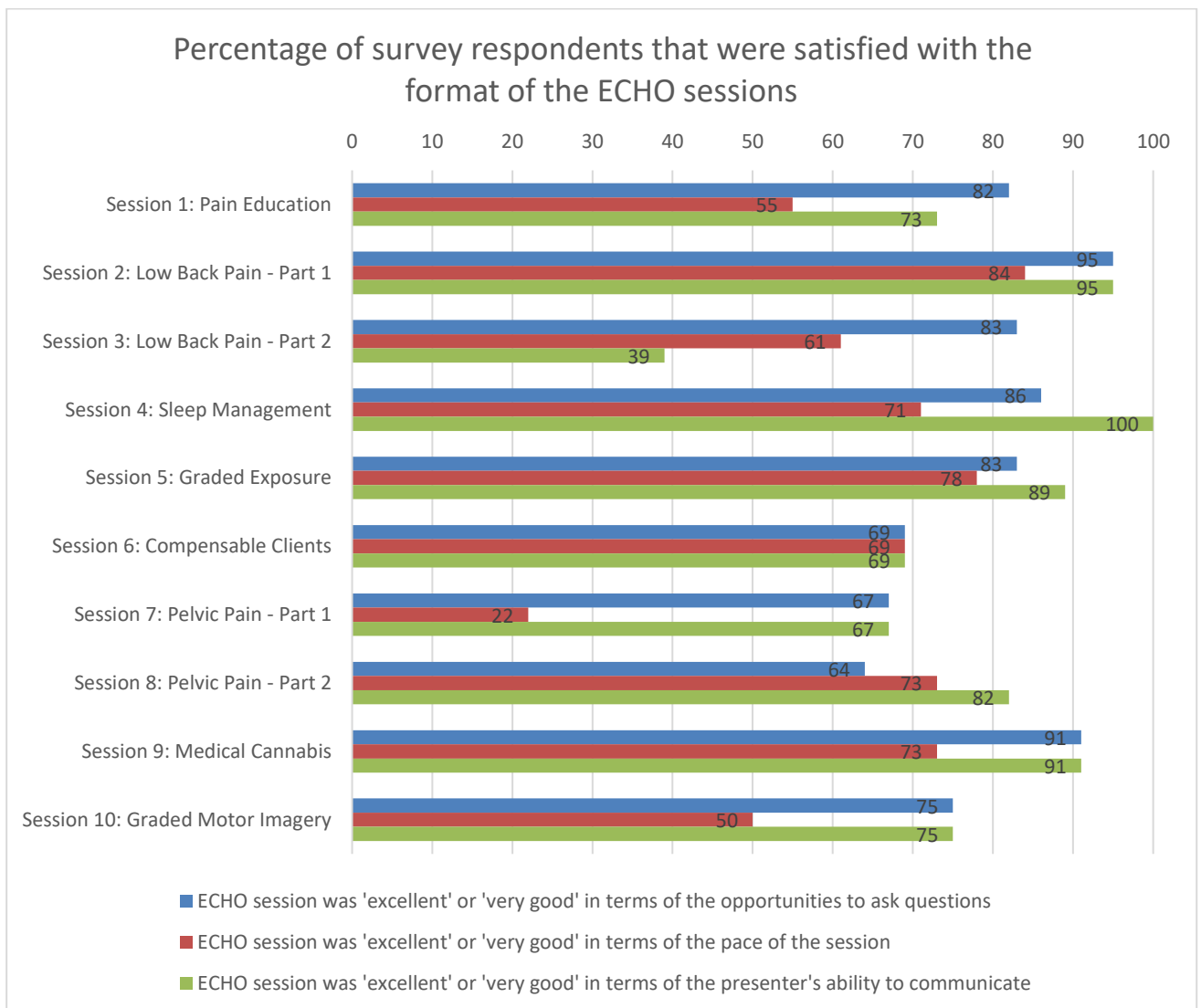


Figure 8: Satisfaction with the format of the ECHO sessions in Series 2

C.3.2.2 Participation in the online focus group

Twelve health professionals participated in the online focus group: four GPs, six physiotherapists, one registered nurse who is a pain rehabilitation coordinator and one specialist pain medicine physician.

C.3.2.3 Key qualitative findings from the online focus group and satisfaction surveys related to satisfaction

The key themes from the online focus group and the open questions in the satisfaction survey, related to satisfaction with the content and format of the Project ECHO series are outlined in **Figure 9**.

| | |
|--|--|
| Project ECHO format | Online community of practice involving a didactic presentation followed by a case presentation, mentoring by hub panel members and group discussion |
| Up-to-date evidence-based information | Related to research and best-practice |
| Relevance | Relevance of the ECHO sessions to practice |
| Multidisciplinary focus | Perspectives of the multidisciplinary panel members, guest presenters and participants from a range of professional disciplines |
| Accessibility | Online learning, no cost and an open group |
| Complex cases | Opportunity to discuss difficult and complex cases |
| Resources | Resources discussed during the ECHO sessions and/or provided after the sessions |

Figure 9: Key themes related to the satisfaction with the content and format of the Project ECHO series

The key themes and **supporting quotes** from the online focus group and the open questions in the satisfaction survey, related to satisfaction with the content and format of the Project ECHO series are outlined in **Table 4**.

Table 4: Key themes and supporting quotes from participants about their satisfaction with the content and format of the Project ECHO series

| Example quotes from participants from the online focus group | Example quotes from participants from the open questions in the satisfaction surveys ^{ix} |
|--|--|
| <p>Theme 1: Participants valued the Project ECHO format of an online community of practice involving a didactic presentation followed by a case presentation, mentoring by hub panel members and group discussion</p> | |
| <p><i>"I think the Echo format works really well." [Project ECHO participant, physiotherapist]</i></p> <p><i>"I think it's good to have that combination of opportunities to have the didactic and also have the discussion following that, I think that's very useful." [Project ECHO participant, GP]</i></p> <p><i>"I feel that ECHO is quite a bit more practical and interactive than most seminars due to the case discussions." [Project ECHO participant, physiotherapist]</i></p> <p><i>"I think those people who want to say something like using the chat function if they're less inclined to speak is really good. And I think certainly, my impression was there was ample opportunity for people who wanted to make a contribution or to say something did have that opportunity really in most of those meetings." [Project ECHO participant, GP]</i></p> <p><i>"I found it helpful- particularly after discussing a patient at the ECHO- I felt I had a more nuanced understanding of treatment options for the patient." [Project ECHO participant, physiotherapist]</i></p> | <p><i>"Well structured, good presentation, good case, well moderated"</i></p> <p><i>"Great to go through cases to compare and reflect on options for approach to care. Thorough, professional, with a genuine focus on positive client outcomes."</i></p> <p><i>"Useful case example with collaborative discussion. Very useful for daily practice."</i></p> <p><i>"[I liked] the expert panel opinions on case presentation."</i></p> <p><i>"The moderator is wonderful at holding it all together, including everyone, encouraging discussion"</i></p> <p><i>"Providing good structure and content."</i></p> <p><i>"I love how succinct and well-paced the sessions have been throughout."</i></p> |
| <p>Theme 2: Participants valued the multidisciplinary focus of the ECHO sessions including the perspectives of the multidisciplinary panel members, guest presenters and participants from a range of professional disciplines</p> | |
| <p><i>"I also feel that I know where treatment could go even if I don't have the skills to it carry out myself." [Project ECHO participant, registered nurse/pain rehabilitation coordinator]</i></p> | <p><i>"[I liked] the panel offering suggestions for management / assessment / involvement. Multidisciplinary with good case study."</i></p> <p><i>"[I liked] Listening to the different approaches available from members from different disciplines - for example, the role of medications, psychological techniques."</i></p> <p><i>"[I liked] hearing the different professional perspectives in chronic pain management. I don't have access to a multidisciplinary team (MDT) so to learn some of the psychology-based skills that can be delivered by physios is very helpful."</i></p> |

^{ix} Type of health professional not identified

| Example quotes from participants from the online focus group | Example quotes from participants from the open questions in the satisfaction surveys ^{ix} |
|--|--|
| | <p><i>"[I liked] having a panel of experts to provide input, education and resources."</i></p> <p><i>"[I liked] the range of professionals that are providing information."</i></p> <p><i>"[I liked] the multidisciplinary input."</i></p> <p><i>"[I liked] the variety of presenters and participants."</i></p> |
| <p>Theme 3: Participants valued the relevance of the ECHO sessions to practice and the honest approach of the panel members and presenters</p> | |
| <p><i>"For the sessions I have attended the knowledge and skills have been clinically relevant." [Project ECHO participant, physiotherapist]</i></p> <p><i>"I feel it's been fairly practical." [Project ECHO participant, registered nurse/pain rehabilitation coordinator]</i></p> <p><i>"It has been good having some practical things to help patients such as the sleep session gave me good ideas to help patients improve their sleep." [Project ECHO participant, physiotherapist]</i></p> <p><i>"The last session had a fascinating discussion re medicinal cannabis as I had seen a patient requesting the same on that day." [Project ECHO participant, GP]</i></p> | <p><i>"[It is] incredibly refreshing to get such an honest approach including comments re value (or lack thereof) of procedures/ interventions."</i></p> <p><i>"Panel responses are fantastic!! they make me think and help me learn."</i></p> <p><i>"[I liked] the practical application of pain education and the resources."</i></p> <p><i>"[I liked] the emphasis on minimal medical intervention was surprising and refreshing, it helps to empower me in communicating to patients with back pain."</i></p> <p><i>"[I liked] the practical useful advice."</i></p> <p><i>"[I liked] "The quality of the information. I love handouts!"</i></p> <p><i>"There were lots of practical tips in the didactic that I will be able to use with patients."</i></p> <p><i>"Enjoying practical focus and techniques can use."</i></p> <p><i>"This topic was fantastic! Really relevant to my practice and very informative."</i></p> |
| <p>Theme 4: Participants valued the quality and up-to-date information related to research and best-practice</p> | |
| <p><i>"It's been great to come across evidence I would have otherwise missed out on." [Project ECHO participant, physiotherapist]</i></p> <p><i>"I feel more up to date with current knowledge as it's been a good way to hear what is happening around the traps." [Project ECHO participant, registered nurse/pain rehabilitation coordinator]</i></p> <p><i>"I feel more up to date with current knowledge as it's been a good way to hear what is happening around the traps...and feel that I'm reasonably on track with current evidence and practices." [Project ECHO participant, registered nurse/pain rehabilitation coordinator]</i></p> | <p><i>"New information outside the sphere I work in (mostly public health)."</i></p> <p><i>"I liked the topic and the quality of training."</i></p> <p><i>"Great to hear a Doctor presenting the evidence on what does and does not work for back pain without any bias or political agenda."</i></p> <p><i>"World leading expert."</i></p> <p><i>"Great quality information."</i></p> |

| Example quotes from participants from the online focus group | Example quotes from participants from the open questions in the satisfaction surveys ^{ix} |
|--|--|
| Theme 5: Participants valued the accessibility of the Project ECHO model with online learning, no cost, and an open group | |
| <p><i>"I think it's been a very accessible platform - no cost to clinicians, easy to attend as discussed." [Project ECHO participant, physiotherapist]</i></p> <p><i>"Having more online sessions, I think it's been really good because really is hard to find probably what amounts to two hours of time to get to a meeting, attend the meeting and then get home after the meeting. I think this format has been really good for that. As much as it's nice to meet people face-to-face it also has allowed me to attend much more of these sessions than I otherwise would have." [Project ECHO participant, GP]</i></p> <p><i>"I think open groups are more accessible and inclusive." [Project ECHO participant, physiotherapist]</i></p> | <p>Questions related to accessibility were not asked in the satisfaction survey.</p> |
| Theme 6: Participants valued the opportunity to discuss difficult and complex cases | |
| <p><i>"A great opportunity to present difficult cases." [Project ECHO participant, GP]</i></p> | <p><i>"[I liked] complex client presentations and information on medicinal cannabis."</i></p> |
| Theme 7: Participants valued the resources discussed during the ECHO sessions and/or provided after the sessions | |
| <p><i>"I've also gathered more resources from these sessions." [Project ECHO participant, registered nurse/pain rehabilitation coordinator]</i></p> <p><i>"Having the resources emailed after the session has been great." [Project ECHO participant, physiotherapist]</i></p> | <p><i>"Loved the handouts."</i></p> <p><i>"[I liked] The resources to help explain pain."</i></p> |

Interest in case presentation

- Session 4 satisfaction survey asked participants whether they would consider presenting a case for discussion. Approximately one-third of survey respondents indicated in the Session 4 satisfaction survey that they were interested in presenting a case for discussion (n=8; 38%).
- Barriers to case presentation reported by survey respondents were a lack of appropriate patients for the case study, *"currently don't have any appropriate patients"* and the need to get more details from patients, *"I would need to get much more detail from the patient"* and a lack of interest, *"I do not want to do this"*.

Open or closed group format preferences

In response to whether participants would prefer a closed or open group, most participants preferred an open group due to the need for flexibility to accommodate their competing priorities.

"It'd be nice to have time to be able to say, yes, I can commit to all those sessions, but I think that's unrealistic for me from a general practice point of view. I'm sure other practitioners, physios and other practitioners might also find the same, there are so much demands on their time to start being didactic about whether you can or can't come."
[Project ECHO participant, GP]

"Please keep it open!" [Project ECHO participant, physiotherapist]

Participants also reported that they felt that an open group did not prevent opportunities for comment despite a potentially larger group:

"I would agree with X about the ample opportunities to comment." [Project ECHO participant, physiotherapist]

"I've done both sessions and think both group sessions worked fine. There were plenty of opportunities for people to speak. I think open sessions would be good as some people are only interested in a couple of topics." [Project ECHO participant, physiotherapist]

Participants acknowledged the benefits of a closed group but thought this approach would not be suitable for health professionals and would exclude potential participants:

"I think it'd be ideal to go to all those meetings so that the themes can develop further, but I think it's impractical when you exclude people who have the chance of learning something if you start limiting things." [Project ECHO participant, GP]

"Pros and cons, I think there are definite benefits to a closed format, where the group's knowledge grows together. But limiting access is always a hard call." [Project ECHO participant, physiotherapist]

Suggestions for improvements

Suggestions for improvements included:

➤ Record sessions:

"Recording sessions would be very helpful to allow those who missed sessions to watch them in their own time." [Project ECHO participant, physiotherapist]

➤ Better promotion of the Project ECHO series:

"I just think it works quite well if the PHN can contact the practice managers, and then they just send a message to all the GPs, so the GPs know what's happening. That works really well." [Project ECHO participant, physiotherapist]

"Use local service directories to find relative parties e.g. physios etc to advertise the program." [Project ECHO participant, registered nurse/pain rehabilitation coordinator]

"[Use] professional bodies (Australian Physio Association)" [Project ECHO participant, physiotherapist]

➤ Promote ECHO session topics schedule in advance:

"I think it's good to let people know in advance so we can plan. Example, to know I've got five webinars on right now." [Project ECHO participant, GP]

➤ Case discussion summaries:

"Perhaps a quick summary of the case study discussion - discussing possible mechanisms (how to test for this and how to target treatment to them)" (mentioned only by one participant)

➤ Useful topics suggested for next series included:

- Case formulation
- Dealing with difficult patients
- Addressing psychosocial factors
- Pain Education
- Chronic low back pain
- Pacing
- Community-based chronic pain programs

C.3.3 Perceived knowledge gaps and need for greater professional support prior to Series 2

C.3.3.1 Key findings from the enrolment survey

The enrolment survey asked potential participants 'what would you like to gain' from the program (n=125 completed the enrolment survey).

Perceived knowledge gaps

Potential participants highlighted the following knowledge gaps:

- Current best practice approaches and the latest evidence about the management of persistent pain
- Understanding the range of multi-disciplinary practitioners' approaches, methods, referral networks and experiences of managing people with persistent pain
- How to tailor different management options to different patients
- Psychological strategies for managing pain and how to conduct psychotherapy
- Mental health and persistent pain
- Educating patients about pain and teaching patients about self-management strategies
- Improving communication skills for working with people with persistent pain
- The neuroscience of pain
- Workcover and TAC clients and how best to manage these clients
- Identification of persistent pain and early diagnosis
- Effective use of medications
- Opioid management and helping patients on long-term opioids who are reluctant to reduce their use
- Medical cannabis and its use for persistent pain
- Managing people with persistent pain with complex needs and comorbidities such as the elderly, and people with mood disorders and substance abuse problems
- Consumer resources for patients with persistent pain
- Sleep management
- Pelvic pain
- Case examples in real settings

Professional support

Potential participants highlighted the need for "a community of practice", "peer support and networking", "developing networks to support local referrals" and "creating connections with like-minded practitioners for support and knowledge sharing".

C.3.4 Impact on learning, confidence and skills, performance, professional support and patient benefits in Series 2

Most participants of Project ECHO Series 2 reported that Project ECHO (Persistent Pain) had improved their knowledge, confidence, quality of patient care and professional support (satisfaction and participant outcome surveys and focus group feedback).

C.3.4.1 Key findings from the satisfaction surveys

- The vast majority of survey respondents reported that they had 'learnt something new' from the didactic in each of the ECHO sessions (average = 92%). The sessions that had highest percentage of positive responses were Session 3 (Low Back Pain – Part 2) (n=18; 100%); Session 4 (Sleep Management) (n=21; 100%); and Session 7 (Pelvic Pain – Part 1) (n=9; 100%).

See **Figure 10**.

- The vast majority of survey respondents reported that they had ‘*learnt or refreshed something that will be useful in caring for their patients*’ in each of the ECHO sessions (average = 93%). The sessions that had highest percentage of positive responses were Session 5 (Graded Exposure) (n=18; 100%); Session 6 (Compensable clients) (n=13; 100%); Session 8 (Pelvic Pain - Part 2)(n=11; 100%); Session 9 (Medicine Cannabis) (n=11; 100%); and Session 10 (Graded Motor Imagery) (n=4; 100%). See **Figure 10**.
- The majority of survey respondents reported that they had ‘*learnt something new from the case presentation*’ in each of the ECHO sessions, although the average percentage across the sessions was less than for the didactic presentation (average = 83%). The sessions that had highest percentage of positive responses were Session 8 (Pelvic Pain - Part 2) (n=11; 100%); Session 4 (Sleep Management) (n=20; 95%); and Session 7 (Pelvic Pain - Part 1) (n=8; 89%). See **Figure 10**.

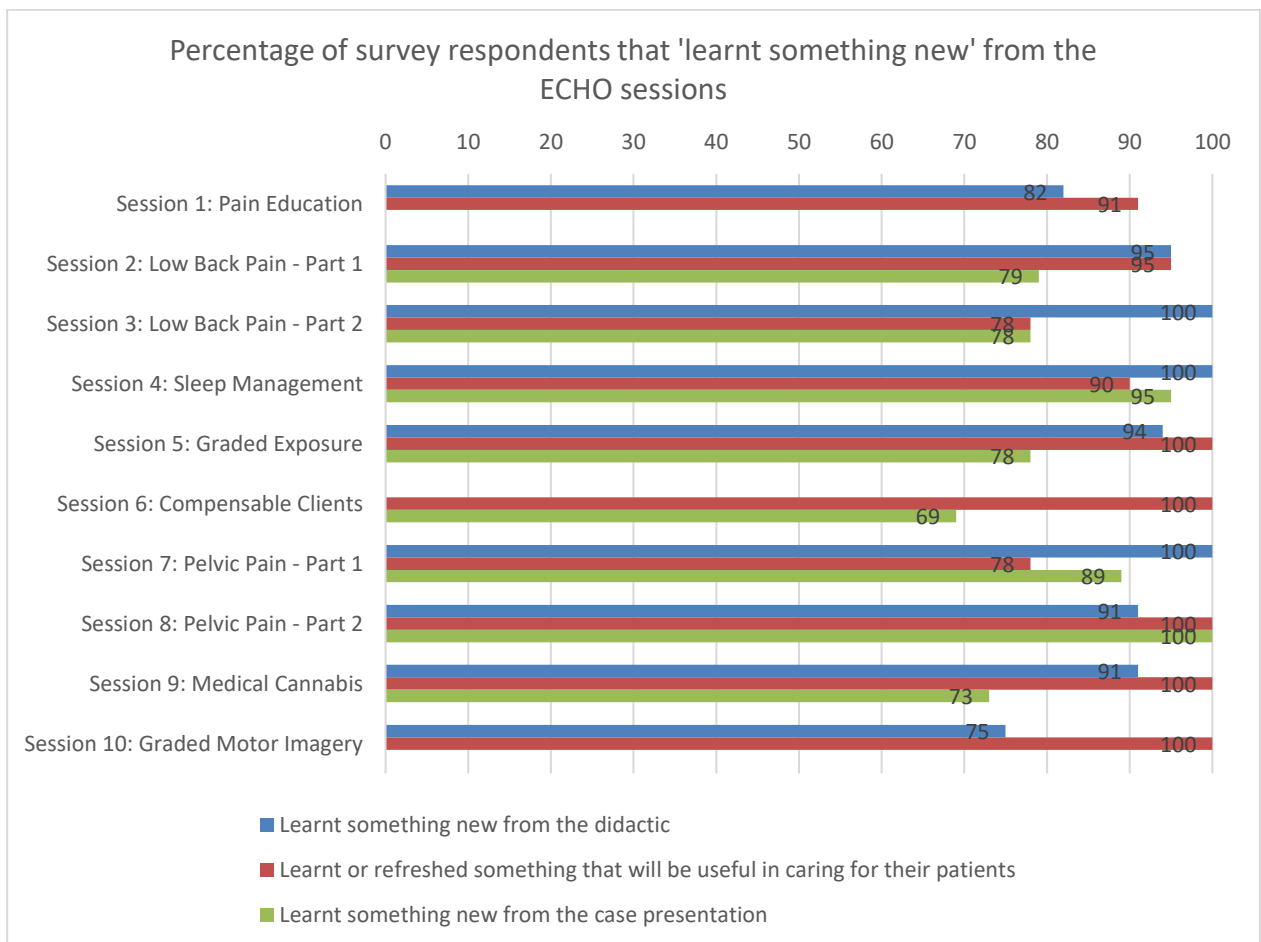


Figure 10: ‘Learnt something new’ from the ECHO sessions in Series 2

Learnings related to specific ECHO sessions (see Figure 11)

Session 1 (Pain Education)

- All survey respondents reported that they had ‘*become aware of educational resources to facilitate pain education for people living with persistent pain*’ (n=11; 100%).
- Almost all survey respondents reported that they had ‘*learnt new strategies for educating people living with non-cancer persistent pain*’ (n=10; 91%).

Session 2 (Low Back Pain - Part 1)

- All survey respondents reported that they had 'learnt something new about the limitations and adverse effects of spinal cord stimulation' (n=18; 100%).
- Almost all survey respondents reported that they had 'learnt something new about the role of spinal cord stimulation in back pain' (n= 17; 94%).
- Almost all survey respondents reported that they had 'learnt something new about the suitable conditions for spinal cord stimulation' (n= 17; 94%).

Session 6 (Compensable Clients)

- The majority of survey respondents reported that the session gave them 'a greater understanding of the WorkSafe compensation system' (n=10; 77%).
- Approximately two-thirds of survey respondents reported that the session gave them 'a greater understanding of the TAC compensation system' (n=8; 62%).

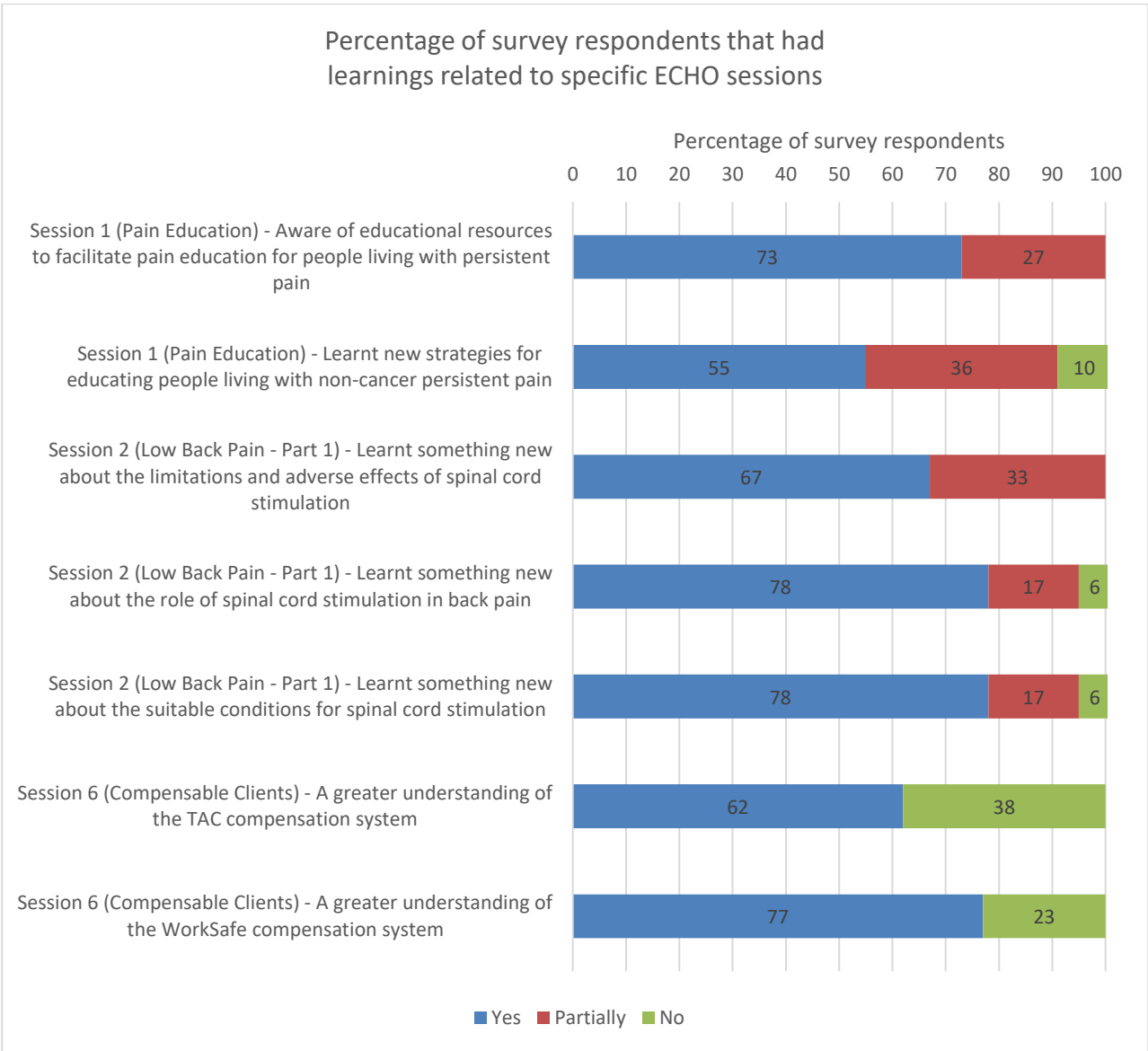


Figure 11: Learnings related to specific ECHO sessions in Series 2

The interest of Session 6 (Compensable Clients) survey respondents in WorkSafe and TAC related topics are outlined in **Figure 12**, with the highest interest for *new programs that are being trialled or*

launched for clients with specific needs and clinical services that do and don't need approval prior to a client accessing them.

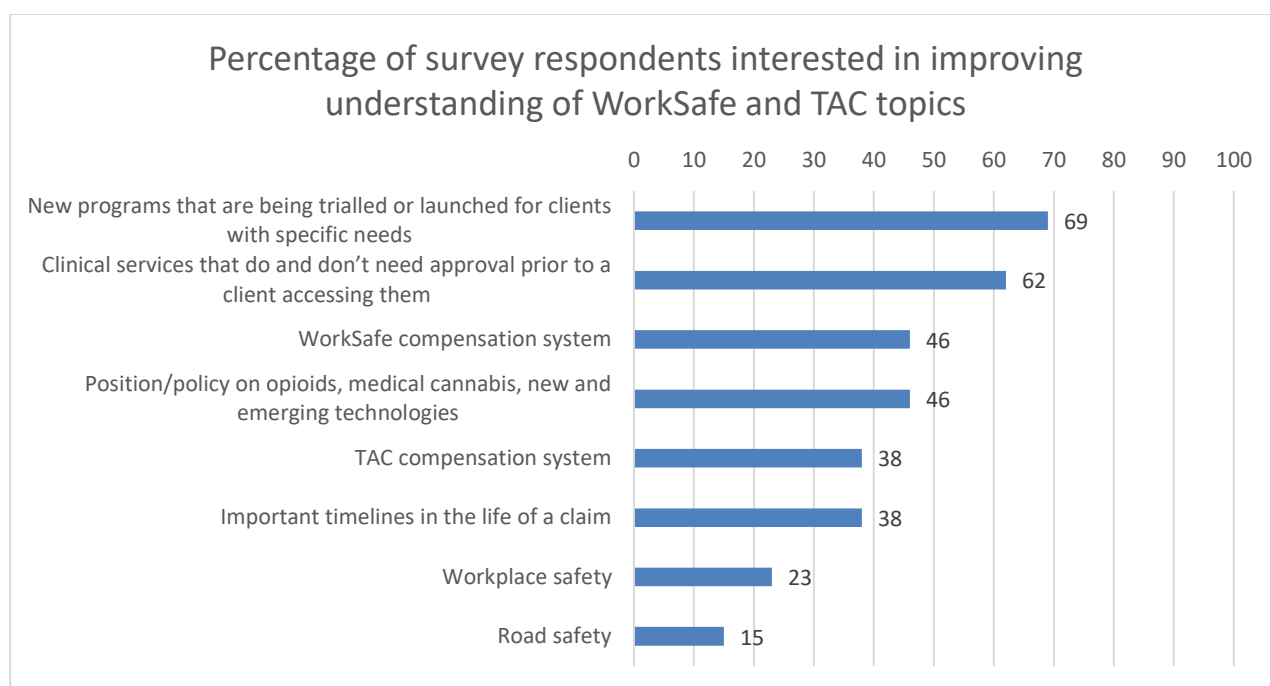


Figure 12: Interest among participants in Series 2 in improving understanding of WorkSafe and TAC topics

C.3.4.2 Key findings from the participant outcome survey

Survey respondent profile

- Eighteen participants completed the participant outcome survey including: seven physiotherapists, three GPs, three pain medicine specialists, two psychologists, two nurse or nurse practitioners and one occupational therapist
- Two thirds of survey respondents (n=12) had over ten years' experience in practice
- Forty-four percent of survey respondents (n=8) worked in the Western Victoria PHN catchment, twenty-two percent worked in Melbourne (n=4), twenty-seven percent worked in the rest of Victoria and one survey respondent worked in Perth.
- The ECHO sessions that survey respondents attended are outlined in the **Table 5**.

Table 5: ECHO sessions attended by outcome survey respondents

| ECHO session | Date | Topic | Number that attended (Total survey respondents n=18) |
|--------------|--------------|-----------------------------------|--|
| 1 | 22 July | Pain Education | 8 (44%) |
| 2 | 5 August | Chronic Low Back Pain (Session 1) | 8 (44%) |
| 3 | 19 August | Chronic Low Back Pain (Session 2) | 12 (67%) |
| 4 | 2 September | Sleep Management | 10 (56%) |
| 5 | 16 September | Graded Exposure | 12 (67%) |
| 6 | 14 October | Compensable Clients | 11 (61%) |
| 7 | 28 October | Pelvic Pain (Session 1) | 13 (72%) |
| 8 | 11 November | Pelvic Pain (Session 2) | 11 (61%) |
| 9 | 25 November | Medical Cannabis | 14 (78%) |
| 10 | 2 December | Graded Motor Imagery | 11 (61%) |

Learning

- Most survey respondents reported that participation in Project ECHO **improved their knowledge about best practice chronic pain management** (n=16; 89%) and **improved their knowledge about non-pharmacological strategies to manage chronic pain** (n=17; 94%). See **Figure 13**.
- Two thirds of survey respondents reported that participation in Project ECHO **helped them to understand gaps in my knowledge that they didn't recognise before** (=12; 67%). See **Figure 13**.

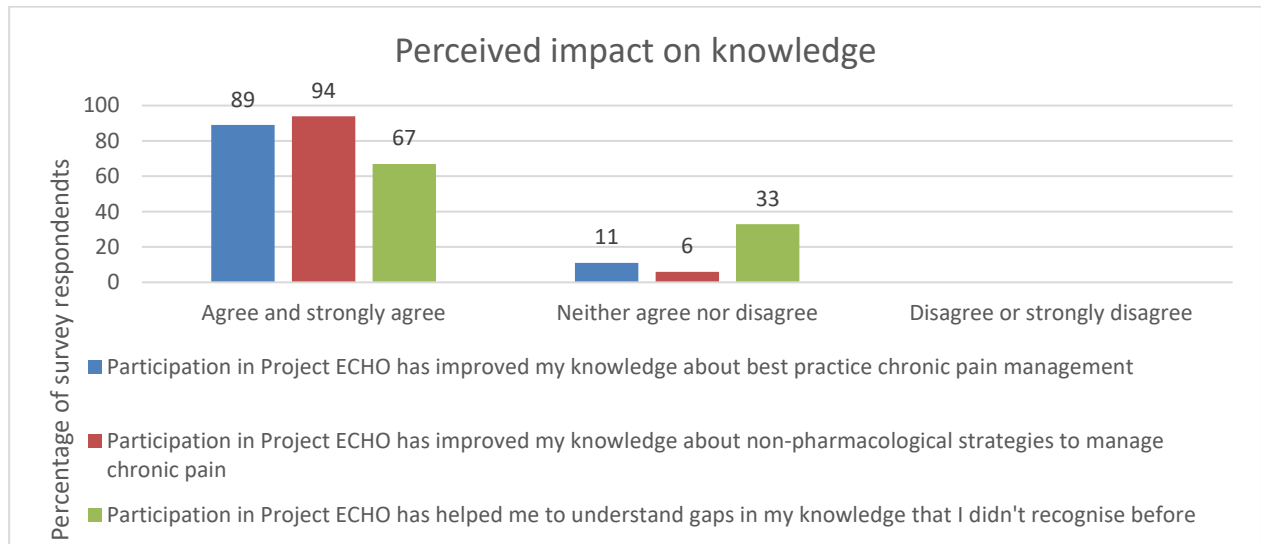


Figure 13: Perceived impact of Project ECHO on knowledge

Confidence and skills

- Most survey respondents reported that participation in Project ECHO **improved their confidence to manage patients with chronic pain** (n=14; 78%) and **improved their skills to manage patients with chronic pain** (n=15; 83%). See **Figure 14**.

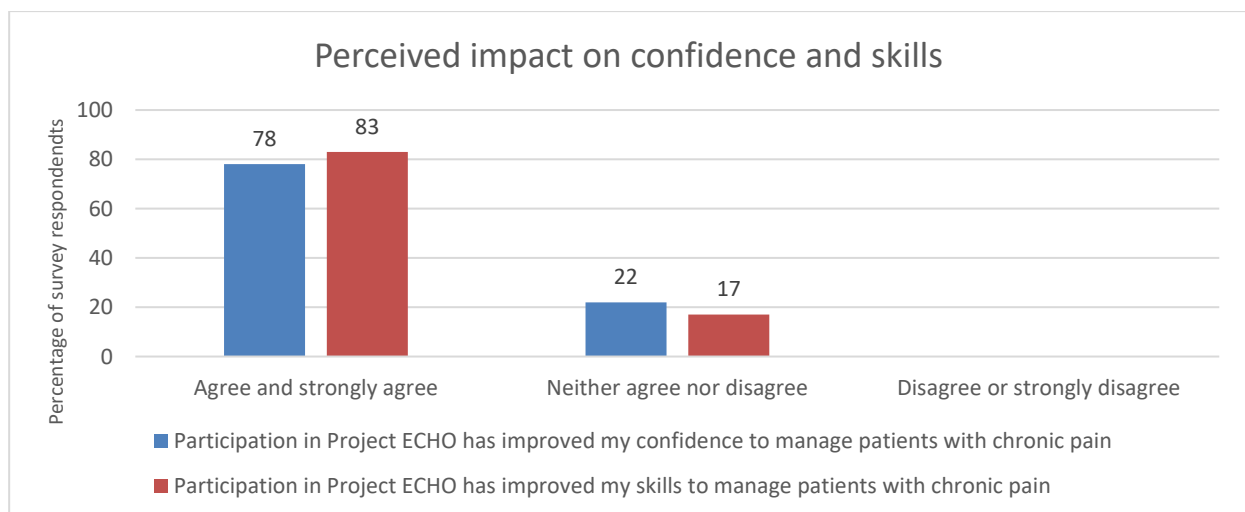


Figure 14: Perceived impact of Project ECHO on confidence and skills

Perceived change in performance

- Most survey respondents reported that participation in Project ECHO **influenced how they manage patients with chronic pain** (n=14; 82%) with only one respondent disagreeing (and one respondent not answering this question). See **Figure 15**.
- Most survey respondents reported that participation in Project ECHO **improved the quality of care of my patients with chronic pain** (n=14; 78%) with only one respondent disagreeing. See **Figure 15**.
- Two out of the three GPs who completed the survey reported that Project ECHO **increased their referrals to allied health practitioners for chronic pain management** and two out of the three GPs reported that it had **decreased their opioid prescribing** (either amount or frequency).

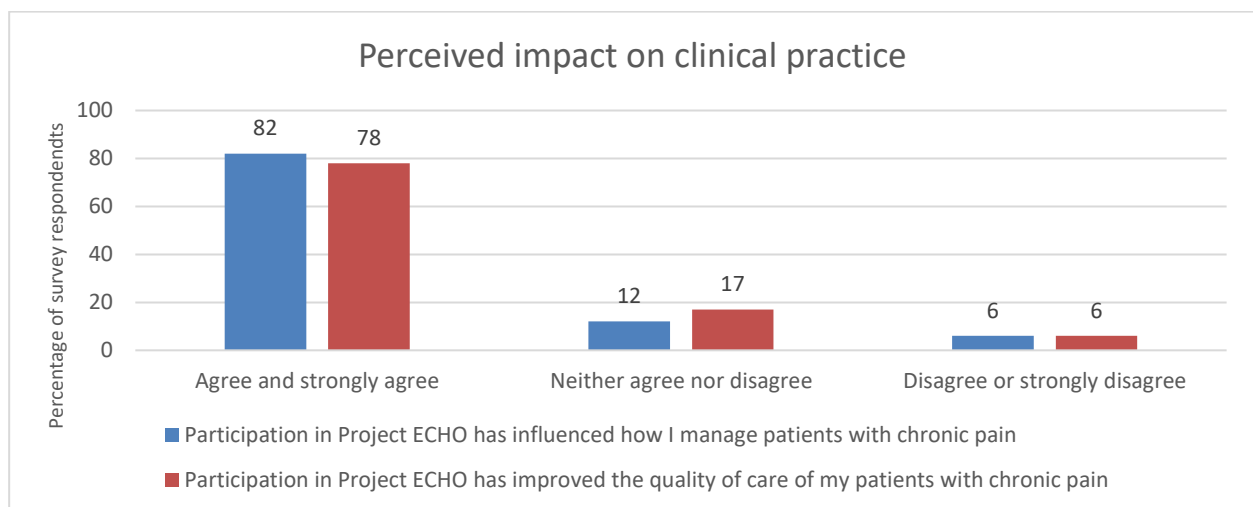


Figure 15: Perceived impact of Project ECHO on clinical practice

Professional support

- All survey respondents reported that participation in Project ECHO **provided professional support**, and **"valued participating in a community of practice"** (n=18; 100%). See **Figure 16**.
- Most survey respondents reported that participation in Project ECHO **reduced their professional isolation** (n=14; 78%) although twenty-two percent neither agree nor disagreed (n=4). See **Figure 16**.

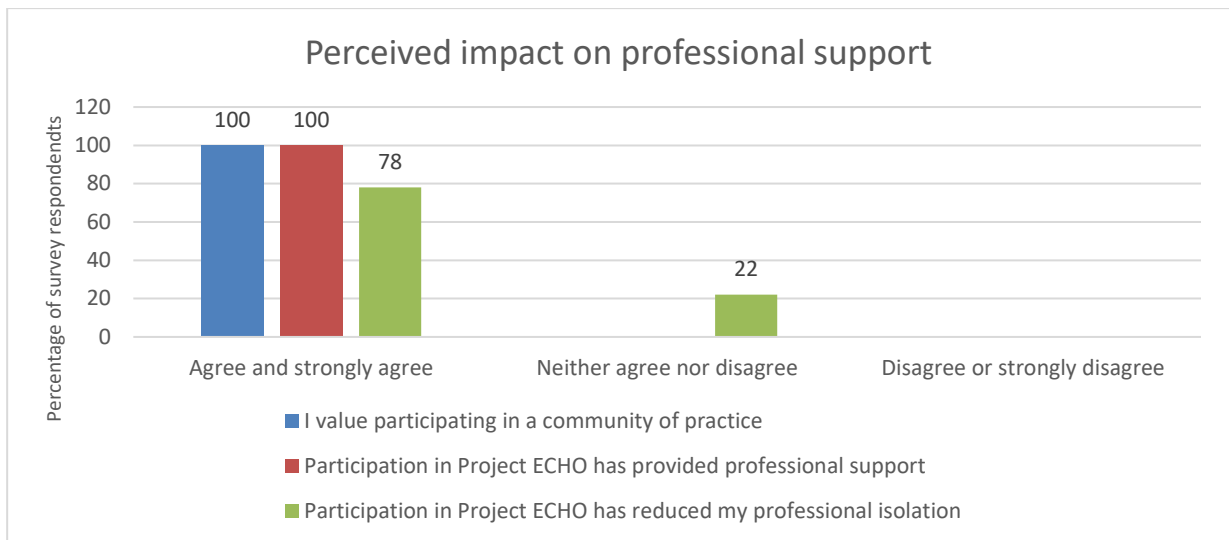


Figure 16: Perceived impact of Project ECHO on professional support

C.3.4.3 Key qualitative findings from the online focus group and participant outcome survey related to impact

The key themes about the impact of the Project ECHO series, from the online focus group and the participant outcome survey feedback, are outlined in **Figure 17**.

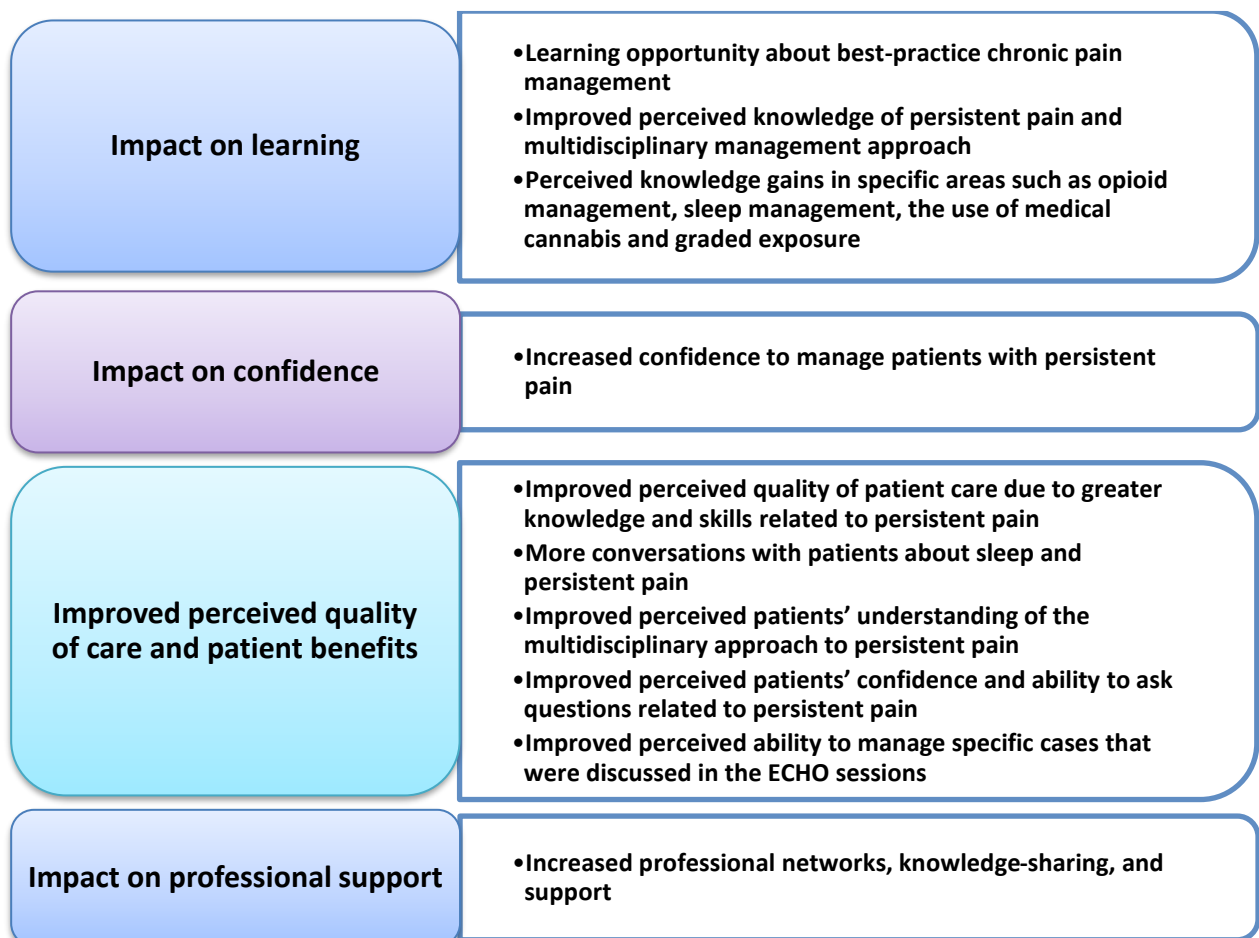


Figure 17: Key themes related to the impact of the Project ECHO series

The key themes and supporting quotations from participants about the impact of the Project ECHO program are outlined in **Table 6**.

Table 6: Key themes and supporting quotes from participants about the impact of the Project ECHO program

| Subthemes | | Example quotes from participants from the online focus group | Example quotes from participants from the open questions in the impact survey ^x |
|------------------------------------|--|--|--|
| Theme 1: Impact on learning | | | |
| A | Learning opportunity about best-practice chronic pain management | <p><i>"I have a number of persistent pain clients at present and I have not had much experience with such. Learning more about persistent pain in general has been fantastic." [Project ECHO participant, physiotherapist]</i></p> <p><i>"I enjoyed the discussions differentiating the different types of pain and treatments." [Project ECHO participant, GP]</i></p> <p><i>"It's been great to come across evidence I would have otherwise missed out on." [Project ECHO participant, physiotherapist]</i></p> | <p><i>"I found the case studies most interesting and particularly hearing from the panellists."</i></p> <p><i>"Having the scientific evidence gives me a firm foundation for the strategies I use for treatment."</i></p> |
| B | Improved perceived knowledge of persistent pain and multidisciplinary management approach | <p><i>"I also feel that I know where treatment could go even if I don't have the skills to it carry out myself." [Project ECHO participant, registered nurse/pain rehabilitation coordinator]</i></p> <p><i>"I've had clients go to see pain specialists in X and after doing these sessions, I had a sense of who they had seen and what approach they had. Very helpful." [Project ECHO participant, registered nurse/pain rehabilitation coordinator]</i></p> | <p><i>"[I have] a greater understanding of pain in a variety of presentations."</i></p> <p><i>"[A key learning is] that physio is essential for pelvic pain."</i></p> <p><i>[A key learning is] to monitor pain."</i></p> |
| C | Perceived knowledge gains in specific areas such as opioid management, sleep management, the use of medical cannabis and graded exposure | <p><i>"I work as a GP and I guess the most common condition, I would say people with chronic back pain or a little bit of sort of post-surgical or discharge from the ED [emergency department] with opiate painkillers. So it's been very helpful to have an idea really about putting limits on the use of opiates to be able to discuss with patients that the pain will settle down and give a timeframe and be more encouraging, so it's been helpful for that." [Project ECHO participant, GP]</i></p> <p><i>"It has been good having some practical</i></p> | <p><i>"[A key learning is] to avoid opiates for acute back pain - if possible."</i></p> <p><i>"[A key learning is that] graded exposure is more complex than I had known, particularly asking questions of the client and encouraging them to talk about their thoughts and feelings as they perform and activity/exposure and to challenge those thoughts."</i></p> |

^x Type of health professional not identified

| Subthemes | | Example quotes from participants from the online focus group | Example quotes from participants from the open questions in the impact survey ^x |
|--|--|---|--|
| | | <p><i>things to help patients such as the sleep session gave me good ideas to help patients improve their sleep.” [Project ECHO participant, physiotherapist]</i></p> <p><i>“The last session had a fascinating discussion re medicinal cannabis as I had seen a patient requesting the same on that day.” [Project ECHO participant, GP]</i></p> | |
| Theme 2: Impact on confidence | | | |
| A | Increased confidence to manage patients with persistent pain | <p><i>“I’m probably more confident in that I feel more up to date with current knowledge as it’s been a good way to hear what is happening around the traps...and feel that I’m reasonably on track with current evidence and practices.” [Project ECHO participant, registered nurse/pain rehabilitation coordinator]</i></p> <p><i>“I too only attended a few sessions but after attending these my confidence has increased significantly.” [Project ECHO participant, physiotherapist]</i></p> <p><i>“We’re getting a lot of people saying it’s built on my confidence, I think that that’s a really exciting point because then they might actually start being more willing to have those conversations [with patients] because they were probably on the right money to start off with, but they actually need us to take that next step. It’s been really good to see that the confidence has grown across the group, and I would certainly second that I think it’s always helpful to have those conversations with a broader group.” [Project ECHO participant, physiotherapist]</i></p> <p><i>“I now feel much more comfortable starting educating patients with chronic pain.” [Project ECHO participant, registered nurse/pain rehabilitation coordinator]</i></p> | <p><i>“It has, through repetition of common principles and practices, embedded some things I already knew but lacked confidence in.”</i></p> <p><i>“I am on the right track, just be confident about it.”</i></p> <p><i>“[It] reinforced the pain education messages that I have been using with my patients.”</i></p> <p><i>“[It] confirmed my current knowledge and know-how to help my patients</i></p> |
| Theme 3: Perceived change in performance and patient benefits | | | |
| A | Improved perceived quality of | <i>“Some of the skills have been very practical, e.g. I have used the sleep hygiene fact sheet a number of times</i> | <i>“I found the pain education talk given by the GP panellist very relevant and I use his slides with my patients.”</i> |

| Subthemes | Example quotes from participants from the online focus group | Example quotes from participants from the open questions in the impact survey ^x |
|---|--|--|
| <p>patient care due to perceived greater knowledge and skills related to persistent pain</p> | <p><i>[with my patients]. [Project ECHO participant, physiotherapist]</i></p> | <p><i>"[A key learning] is teamwork with my patients and setting goals that are achievable and timely i.e. individually tailored care and treatment."</i></p> <p><i>"I have developed a strategy to set limits prior to opiate prescribing, having evidence for other treatments."</i></p> <p><i>"I have been regularly challenging my patient's thinking and catastrophising behaviours and language around their pain. I routinely now normalise X-ray and scan findings where appropriate."</i></p> |
| <p>B More conversations with patients about persistent pain and sleep</p> | | <p><i>"I now spend a lot more attention on the sleep hygiene management and incorporate it into my patient's care."</i></p> <p><i>"[A key learning] is sleep hygiene - I started asking my clients how they were sleeping, and it opened up a lengthy discussion. I have now included it as a question in my general initial assessment of all clients as poor sleep has a huge impact on a person's ability to function."</i></p> <p><i>"I most enjoyed hearing about the practical tips (such as the tips given in the sleep session) as these are easy things for me to pass onto my patients and I can see how these will help my practice."</i></p> |
| <p>C Improved perceived patients' understanding of the multidisciplinary approach to persistent pain</p> | <p><i>"It helps them understand that they may need to tackle different aspects with different people or add to their 'team' if needed." [Project ECHO participant, registered nurse/pain rehabilitation coordinator]</i></p> | |
| <p>D Improved perceived patients' confidence and ability to ask questions related to persistent pain</p> | <p><i>"I definitely find from the patient perspective, increasing confidence can be a really big part because if the provider doesn't feel confident, then they're not going to necessarily breach the topics." [Project ECHO participant, physiotherapist]</i></p> <p><i>"I think it helps patients feel that I will have some idea of where they might need to go or what they may need to</i></p> | |

| Subthemes | | Example quotes from participants from the online focus group | Example quotes from participants from the open questions in the impact survey ^x |
|--|--|--|--|
| | | <i>follow up.</i> [Project ECHO participant, registered nurse/pain rehabilitation coordinator] | |
| E | Improved perceived ability to manage specific cases that were discussed in the ECHO sessions | <i>"I found it helpful- particularly after discussing a patient at the ECHO- I felt I had a more nuanced understanding of treatment options for the patient."</i> [Project ECHO participant, physiotherapist] | |
| Theme 4: Impact on professional support | | | |
| A | Increased professional networks, knowledge-sharing, and support | <p><i>"We've got a multidisciplinary pain team and we've been running for quite a few years and we're very well-resourced and we'd be happy to share those resources with Project ECHO, and you can distribute them."</i> [Project ECHO participant, registered nurse/pain rehabilitation coordinator]</p> <p>Participant 1: <i>"Is there any free apps for graded motor imagery?"</i> Participant 2: <i>"If you have the app, you can test the patient to see if they would benefit from it."</i> Participant 3: <i>"I think there is an app called orientate that is free on Android, not as user friendly as Noi I've found."</i></p> | <p><i>"It has allowed me to put a face and background on community-based colleagues, knowing the person you are working with cannot be understated."</i></p> <p><i>"This has provided me with exposure to peers and moreover primary care community-based colleagues and their knowledge needs / needs assessments. It also allows more direct communications and engagements with respect to these needs."</i></p> <p><i>"As a specialist pain medicine physician, it allows me to check in on my practice with respect to my community-based colleagues needs assessments."</i></p> <p><i>"Please continue with this project into 2021. I found it extremely helpful and allowed me to connect with clinicians in this field."</i></p> |

C.4 Primary objective iv: To provide opportunities for discussion between WVPHN, partners and the evaluation team during implementation aligned to a continuous improvement model

Good monitoring and feedback strategies have been demonstrated for Series 2 to enable continuous quality improvement including regular meetings of Project ECHO Hub team, participant feedback through satisfaction surveys and regular meetings of the Strategic Advisory Committee

C.4.1 WVPHN and partners

- Regular meetings of the **Project ECHO Hub team** prior to, and immediately after, ECHO sessions to provide feedback, plan and propose solutions to any challenges
- Regular **participant feedback** through satisfaction surveys (sent to participants after each ECHO session) related to their satisfaction with the content and format of the session and suggestions for improvement. Participant feedback was collated by the WVPHN project officer/coordinator after each ECHO session.
- Regular meetings of the **Strategic Advisory Committee meetings** (and email communication) to discuss feedback from participants and the Project ECHO Hub team and to propose solutions to any challenges. The WVPHN project officer/coordinator developed action points including any decisions about implementation changes after the Strategic Advisory between Committee meetings

C.4.2 Evaluation team

- Regular meetings (and email communication) between the **evaluation lead (SDM) and the WVPHN project officer/coordinator**
- The **Program Logic Workshop with WVPHN and partners** and the **evaluation team**, and **interviews with WVPHN, partners and hub panel members** as part of the evaluation, provided opportunities to discuss implementation successes and challenges
- The **preliminary findings report** developed by the evaluation team (30 November 2020) provided a synthesis of program participation, implementation successes and challenges, and participant satisfaction. It also provided recommendations for WVPHN and partners to assist in the planning of Series 3.

C.5 Primary objective v: To highlight key learnings and make recommendations for improvements in the implementation and curriculum of Project ECHO (Persistent Pain)

C.5.1 Implementation successes and challenges

Technology was not a major barrier to implementation of Project ECHO (Persistent Pain). Moreover, the COVID-19 pandemic was an enabling context for implementation of the program and accelerated the interest and confidence of WVPHN and end-users in e-networking and education.

Challenges to implementation

Key challenges to implementation included:

- **WVPHN staff changes**
- **Engaging GPs** to participate in the program
- Engaging primary care providers to give **case presentations**
- Time to **plan the curriculum** and develop learning objectives prior to the series
- Time to provide **guidance to didactic presenters** about format and relevance to practice
- Obtaining **CPD points** for all professional disciplines
- Providing '**back-up**' **Hub panel members** and **limited funds** for reimbursing Hub panel members
- Developing the **systems and processes to ensure efficiency**

See **Table 7** for what worked well and the challenges to implementation, informed by the participant and stakeholder consultation (interviews, workshop with WVPHN and partners, participant surveys and participant focus group).

Table 7: Implementation successes and challenges - Project ECHO (Persistent Pain) Series 2

| Key implementation activities of Project ECHO (Persistent Pain) | | What is working well | Challenges |
|---|---|---|---|
| 1. | Engagement of multidisciplinary hub panel members (including a pain medicine specialist, GP, psychologist, and physiotherapist/ adviser to WorkSafe and TAC) | <ul style="list-style-type: none"> • Commitment of hub panel members • Recruitment of clinicians to form the hub panel from a regional hospital (Barwon Health, University Hospital Geelong) and primary care was perceived by WVPHN and partners as beneficial in terms of providing context relevance as well as content expertise • Multidisciplinary focus was perceived as beneficial by participants, WVPHN and partners | <ul style="list-style-type: none"> • Amount of in-kind time required from hub panel members and lack of back-up support |
| 2. | Co-ordination of Series 2, facilitation of ECHO sessions, and IT support | <ul style="list-style-type: none"> • Commitment of WVPHN staff to the Project ECHO model and Series 2 • Overall good management and coordination of the Series 2 • WVPHN staff accessed support and resources from QLD ECHO Superhub | <ul style="list-style-type: none"> • Staff turnover with the clinical facilitator/ project manager who had undertaken 'immersion' ECHO training no longer working at WVPHN after Session 4 |

| Key implementation activities of Project ECHO (Persistent Pain) | What is working well | Challenges |
|---|---|---|
| | <ul style="list-style-type: none"> • Some WVPHN staff had undertaken 'immersion' training through the QLD ECHO Superhub • WVPHN staff and partners participated in the Project ECHO Asia-Pacific ECHO Collaborative • Partnership between Project office/coordinator and facilitator (changed after Session 4 due to facilitator no longer working at WVPHN) • Clinical knowledge of the facilitator(s) perceived as important to successful facilitation • Good processes related to follow-up email after the ECHO session and reminders before each ECHO session • Overall, not many IT problems encountered and people familiar with Zoom | <ul style="list-style-type: none"> • High administrative workload for project officer/ coordinator • Lack of external IT support |
| 3. Governance and communication arrangements and feedback mechanisms | <ul style="list-style-type: none"> • Good governance and communication arrangements with regular Strategic Advisory Committee meetings (and email updates) to feedback participant satisfaction data, hub panel members' feedback and to problem solve challenges • Hub panel members met prior to ECHO sessions and after ECHO sessions to plan and debrief • Responsive program enabling continuous quality improvement | N/A |
| 4. Recruitment strategy | <ul style="list-style-type: none"> • Good overall participation in Series 2 has met WVPHN and partners expectations and good repeat attendance • Uncapping of participant numbers prior to Session 4 did not have a major impact on participant numbers • Positive feedback from participants (in the surveys and focus group), the QLD ECHO Superhub and a hub panel member about implementing the program using an 'uncapped' open group model • Promotion of the Project ECHO program as a series not as a number of webinars, and encouraging commitment to the whole series if possible, within personal and professional commitments | <ul style="list-style-type: none"> • GPs had the highest non-attendance rate with almost half not attending after enrolment • Managing a larger number of participants in Series 2 compared to Series 1 resulted in the need for modifications such as introductions in the 'chat' • CPD points were not established from the beginning of Series 2 for GPs and other primary care providers |
| 5. Curriculum development and didactic presentation planning | <ul style="list-style-type: none"> • The didactic topics were selected in response to the Learning Needs Analysis (LNA) conducted in December 2019, the expert advice of the hub panel members, the interests of the partners (WorkSafe and TAC), and emerging needs of participants. | <ul style="list-style-type: none"> • Curriculum was developed throughout the series and required substantial in-kind time from hub panel members and guest presenters • Learning objectives were not |

| Key implementation activities of Project ECHO (Persistent Pain) | What is working well | Challenges |
|---|---|--|
| | <ul style="list-style-type: none"> The didactic presentations were developed by hub panel members and/or guest presenters, throughout Series 2 as required. Guest presenters had content matter expertise and were selected from the networks of WVPHN, WorkSafe and TAC. Hub panel members worked with guest presenters to ensure that presentations were aligned to current evidence and best practice. There was a range of topics included in Series 2 and the majority of survey respondents reported that they had learnt something new from the didactic and case presentation in each of the ECHO sessions | <p>established for Series 2</p> <ul style="list-style-type: none"> Some topics were perceived in Series 2 to be too specialised and may have limited applicability to primary care providers Lack of guidance for guest presenters to ensure the presentations kept to time and that information could be applied by primary care providers in their practice IT challenges were experienced in recording the didactic presentation only for availability on the WVPH website for participants who had missed an ECHO session or wanted to hear the session again |
| <p>6. Engaging and supporting primary care providers to deliver case presentations</p> | <ul style="list-style-type: none"> The majority of survey respondents reported that they had learnt something new from the case presentation in each of the ECHO sessions | <ul style="list-style-type: none"> Only four case presentations were conducted by primary care providers over Series 2 and all presenters were physiotherapists |
| <p>7. Summary of recommendations from case presentations</p> | <ul style="list-style-type: none"> Primary care providers who presented cases received a written summary of the recommendations up to Session 3 | <ul style="list-style-type: none"> Only one primary care provider presented a case up to Session 4 and received a written summary of the recommendation Developing a summary of recommendations from case presentations was a task performed by the facilitator no longer working at WVPHN after Session 3 |
| <p>8. Participant feedback-satisfaction surveys</p> | <ul style="list-style-type: none"> Participants were encouraged to complete a satisfaction survey after each session The average response rate for the satisfaction surveys over Series 2 was 45% (range 20-63%) | <ul style="list-style-type: none"> Likert scales chosen for some of the survey questions were not optimal and made the results difficult to interpret Adding questions or changing questions over Series 2 resulted in an incomplete dataset for the whole series |

C.5.2 Major changes to implementation during Series 2

Major changes to implementation during Series 2 included:

- a) **Staff turnover** with the clinical facilitator/project manager who had undertaken 'immersion' ECHO training no longer working at WVPHN after Session 3.

Impact:

- Increased workload for the project officer/coordinator, however, other WVPHN staff members and the 'fill-in' facilitator from the hub panel provided support to the project officer/coordinator during this time
- Case presentation summary recommendations were unable to be developed after Session 3 as this task was performed by the facilitator no longer working at WVPHN
- The WVPHN co-ordinator of the Project ECHO (COVID-19) program also facilitated the ECHO sessions during Series 2 from Session 8 onwards

- b) **The decision by the Strategic Advisory Committee to 'uncap' participant numbers** prior to Session 4 to enable an open group and enrolments throughout Series 2.

Impact:

- Interviews with WVPHN staff and the discussion during the Program Logic Workshop highlighted a concern that an open group with a potentially larger number of participants would decrease participants' sense of belonging to a community of practice and would reduce retention, opportunities for referrals, and confidence among primary care providers to present cases
- Our analysis indicated that the decision to 'uncap' participant numbers did not have a major impact on overall participant numbers
- A greater number of participants in Series 2 compared to Series 1 resulted in participant 'introductions' in the ECHO session occurring in the 'chat' rather than verbally due to time constraints
- Positive feedback from participants (in the surveys and focus group), the QLD ECHO Superhub and a hub panel member about implementing the program using an 'uncapped' open group model

- c) **Data collection** - additional questions and question modifications to satisfaction surveys through Series 2.

Impact:

- The changes allowed for greater data collection; however, it impacted on completeness of the dataset for the whole series and this limited data analysis across the whole series. See **Appendix 5** for suggested changes to the satisfaction surveys for Series 3.

- d) **Due to the COVID-19 pandemic** individual hub panel members and WVPHN staff participated in the ECHO sessions online at their place of residence rather than together in one room.

Impact:

- This change was reported by hub panel members and WVPHN staff as not having a significant impact on the delivery of the ECHO sessions as they were accustomed to online discussions and using Zoom and the online Project ECHO program was well suited to the pandemic restrictions
- It resulted in less travel and inconvenience for hub panel members and WVPHN staff

C.5.3 Fidelity

A key feature of Project ECHO is its flexibility, requiring adherence to only four principles³:

The program must: 1) Use technology to leverage scarce resources; 2) Use case-based learning to master complexity-learning loops; 3) Share best practice to improve knowledge (to increase desired outcomes); and 4) Use a web-based database (iECHO) to monitor outcomes

Series 2 adheres to the Project ECHO Principles while adapting the model to the local WVPHN context to ensure appropriateness and successful implementation

C.5.4 Enablers to implementation of Project ECHO (Persistent Pain) Series 2

Enablers to implementation

Enablers to implementation of Series 2, informed by the participant and stakeholder consultation (interviews, workshop with WVPHN and partners, participant surveys and participant focus group), included the following:

Commitment of WVPHN, partners and panel members

- ✓ **Enthusiasm and commitment of WVPHN staff and partners** to the Project ECHO model/ 'Project ECHO champions' within WVPHN and partners
- ✓ **'Buy-in' of WVPHN executive level staff** and alignment to WVPHN values and Strategic Directions (2020-2023)
- ✓ **Additional funding provided by the partners** and the contribution of the partners to the governance of the program
- ✓ **'Pain champions'** within WVPHN, partners and hub panel
- ✓ **Commitment and skills of WVPHN staff** including clinical knowledge of facilitator(s)
- ✓ **Enthusiasm and commitment of hub panel members**
- ✓ **Engagement of guest presenters** who had subject matter expertise, through leveraging established networks of stakeholders of WVPHN, partners and hub panel members

Appropriate to participants

- ✓ **Responding to need** (Learning Needs Analysis and emerging needs)

Governance, planning and co-ordination

- ✓ **Good governance and communication** arrangements
- ✓ **Piloting** of Project ECHO (Persistent Pain) in Series 1
- ✓ Project officer/**coordinator** and **facilitator roles** despite challenges from staff changes

Project ECHO model and ECHO CoP

- ✓ The **Project ECHO 'implementers' community of practice (CoP)** including training, resources, branding, and support - US ECHO Institute, QLD ECHO Superhub and Project ECHO Asia-Pacific ECHO Collaborative

Monitoring and evaluation

- ✓ **Good monitoring and feedback** strategies for continuous quality improvement including regular meetings of Project ECHO Hub team, participant feedback through satisfaction surveys and regular meetings of the Strategic Advisory Committee

COVID-19 pandemic enabling context

- ✓ COVID-19 pandemic restrictions **was not a barrier to the implementation of the online Project ECHO community of practice (CoP)**
- ✓ It resulted in **less travel and inconvenience** for Project ECHO Hub team
- ✓ It **accelerated interest and confidence in using technology** for networking and education

C.5.5 Recommendations to improve Project ECHO (Persistent Pain)

Key focus areas to improve the program, informed by the participant and stakeholder consultation (interviews, workshop with WVPHN and partners, participant surveys and participant focus group) and the evidence from the peer-reviewed literature, are outlined in **Figure 18**.



Figure 18: Key focus areas to improve Project ECHO (Persistent Pain)

C.6 Secondary objective i: To explore whether the Project ECHO model is a suitable and effective Workforce Learning Platform for WVPHN

Project ECHO model is a suitable and effective Workforce Learning Platform for WVPHN

The Project ECHO Model is a **suitable** Workforce Learning Platform for WVPHN, perceived by WVPHN as:

- **Appropriate** for primary care providers to improve knowledge, confidence, and professional support in targeted health contexts
- **Aligned** to WVPHN values and Strategic Directions (2020-2023) with the **buy-in of executive staff** at WVPHN and supported by 'Project ECHO champions' in WVPHN
- **Acceptable** in terms of WVPHN understanding the Project ECHO principles and the complexities of implementing the Project ECHO model
- **Feasible** to implement in terms of WVPHN using technology to implement the Project ECHO model, WVPHN leveraging established networks of stakeholders to support Project ECHO curriculum development and implementation, WVPHN having sufficient resources for implementation (staff, IT support, in-kind support from panel members), and WVPHN having the capacity to implement ongoing quality improvement
- **Adaptable** to the local WVPHN context to ensure appropriateness and successful implementation

The Project ECHO model has been shown to be an **effective** Workforce Learning Platform for WVPHN. It has been shown to be:

- **Acceptable** among primary care providers with a high level of satisfaction demonstrated related to the content and format of the Project ECHO program, and attendance in the program meeting the expectations of WVPHN and partners
- **Effective** in terms of improving perceived knowledge, confidence, perceived quality of patient care, and professional support of participants

C.7 Secondary objective ii: To explore how the Project ECHO model could be replicated to other health contexts

C.7.1 Project ECHO programs across different health contexts

A systematic review of Project ECHO programs found the model to be effective across a number of health contexts with improved patient outcomes; improved knowledge, self-efficacy and provider behaviour of primary care providers; and cost effectiveness.²

The Project ECHO model has expanded rapidly with 960 Project ECHO programs, 436 Hubs across 45 countries addressing over 100 conditions. <https://hsc.unm.edu/echo/>

Project ECHO programs in Australia

There are currently 14 Project ECHO hubs and 28 programs in Australia as seen in **Figure 19**.

| Hub | Focus | Website | Email | Hub City | Hub St./Pr./Reg. | Hub Country |
|--|---|-------------------------|-----------------------|----------------|------------------|-------------|
| Children's Health Queensland Hospital and Health Service | Behavioral/Mental Health, COVID-19, Infectious Disease, Pediatrics, Social Welfare, Palliative Care, Autism, Nutrition & Metabolic Diseases, Chronic Pain, Refugee Health | Website | | Brisbane | Queensland | Australia |
| Goulburn Valley Health | Behavioral/Mental Health, Substance Use Disorders | | | Shepparton | Victoria | Australia |
| Health and Wellbeing Queensland | Nutrition & Metabolic Diseases, Pediatrics | Website | Email | North Ward | Milton QLD | Australia |
| Health Consumers Queensland Ltd | Business, Primary Care | Website | | Brisbane | Queensland | Australia |
| Liverpool Hospital | Hepatitis C, Infectious Disease | Website | | Liverpool | New South Wales | Australia |
| Royal Australian College of General Practice | Primary Care, Substance Use Disorders | Website | | East Melbourne | Victoria | Australia |
| St. Vincent's Hospital, Melbourne | Substance Use Disorders | | | Fitzroy | Victoria | Australia |
| State of Tasmania (Tasmanian Health Service) | Chronic Pain, Business | Website | | Hobart | Tasmania | Australia |
| The Royal Women's Hospital | Domestic Violence, Maternal & Fetal Health, Substance Use Disorders | Website | | Parkville | Victoria | Australia |
| The University of Melbourne | Behavioral/Mental Health, Pediatrics, Cancer Treatment, Chronic Disease, Nephrology, Quality Improvement | Website | | Carlton | Victoria | Australia |
| Thorne Harbour Health | Behavioral/Mental Health, LGBT Health | Website | | | Melbourne | Australia |
| Townsville Hospital and Health Service | Chronic Pain | Website | | | | Australia |
| VCS Foundation Ltd. | Cancer Prevention & Risk Reduction, Cancer Screening, Cancer Treatment | Website | | Carlton South | Victoria | Australia |
| Western Victoria Primary Health Network | Chronic Pain, COVID-19, Infectious Disease, Public Health | | | | Victoria | Australia |

Figure 19: Project ECHO programs in Australia

C.7.2 Considerations for planning and implementing Project ECHO programs in other health contexts

Considerations for WVPHN for planning and implementing Project ECHO programs in other health contexts are outlined in **Figure 20**. Considerations are posed as a series of questions to be used as a checklist.

Needs assessment(s) of primary care providers

- Is there sufficient evidence to support the need for greater education and professional support in the proposed health context(s)?
- Does WVPHN have the resources to conduct a Learning Needs Analysis (LNA) in the proposed health context(s)?

Stakeholder engagement

- Does WVPHN have established networks of stakeholders to support Project ECHO curriculum development and implementation in the proposed health context(s)?
- e.g. to identify and engage hub panel members and guest presenters, to engage a facilitator (if external) and to engage a range of primary care providers to participate in the Project ECHO program

Project ECHO implementation knowledge

- Do WVPHN staff involved in the Project ECHO program in the proposed health context(s) understand the key principles and elements of the Project ECHO model and implementation considerations?
- Do WVPHN staff have experience implementing a Project ECHO program and/or does WVPHN have the resources to upskill staff via ECHO 'immersion training' (QLD ECHO Superhub)?

Resources and funding

- Does WVPHN have the resources (staff, IT support, remuneration of external facilitators or panel members) and external funding (if needed) to support implementation and sustainability of the Project ECHO program?

Governance and planning

- Have WVPHN champions in Project ECHO and/or proposed health context(s) been identified and good governance and communication arrangements for the program been established?
- Does WVPHN have the resources to support pre-implementation planning and curriculum development?

Monitoring and evaluation

- Does WVPHN have the resources to support the development of a monitoring and evaluation framework to support continuous quality improvement of the program and to examine the effectiveness of the program (participant satisfaction and impact)?

Support from Project ECHO 'implementers' community of practice

- Can WVPHN seek the support of the QLD ECHO Superhub and Project ECHO Asia-Pacific ECHO Collaborative in the planning and implementation phases?
- Can WVPHN engage and/or collaborate with other institutions implementing Project ECHO programs in Australia particularly if the program focuses on the targeted health context(s)?

Core Project ECHO working group across WVPHN Project ECHO programs

- Can WVPHN establish a core Project ECHO working group across WVPHN Project ECHO programs to enable knowledge and resource-sharing and improve program efficiencies?

Figure 20: Considerations for WVPHN for planning and implementing Project ECHO programs in other health contexts

See **Figure 21** for an approach to organisational readiness for Project ECHO programs from Serhal and colleagues adapted from the *Consolidated Framework for Implementation Research (CFIR)*.³



Figure 21: An approach to organisational readiness for Project ECHO programs adapted from the *Consolidated Framework for Implementation Research (CFIR)*.

C.7.3 Program Logic Project ECHO (Persistent Pain)

The Program Logic Project ECHO (Persistent Pain) was developed to guide the implementation and evaluation of Project ECHO Series 3; and to inform other Project ECHO programs implemented by WVPHN for other health conditions, for example, Alcohol and Other Drugs (AOD) and mental health. For more information about the Program Logic Project ECHO (Persistent Pain) see **Appendix 2, Page 67**.

C.8 Secondary objective iii: To make recommendations for the future development and implementation of high-quality Project ECHO programs

Recommendations for the future development and implementation of high-quality Project ECHO programs, informed by the participant and stakeholder consultation (interviews, workshop with WVPHN and partners, participant surveys and participant focus group) and the evidence from the peer-reviewed literature, are outlined in **Table 8**.

Table 8: Recommendations for the future development and implementation of high-quality Project ECHO programs

| Recommendations for the future development and implementation of high-quality Project ECHO programs | |
|--|--|
| Evidence of need | <ul style="list-style-type: none"> ○ Assess the need for greater education and professional support related to the specific health context ○ Conduct a Learning Needs Analysis (LNA) |
| Resources and funding | <ul style="list-style-type: none"> ○ Ensure adequate resources (staff, IT support, remuneration of external facilitators or panel members) and external funding (if needed) to support implementation and sustainability |
| Governance and planning | <ul style="list-style-type: none"> ○ Establish clear goals and target group(s) for the Project ECHO program ○ Identify champions in Project ECHO related to the specific health context ○ Establish governance and communication arrangements ○ Allow time for pre-implementation planning and curriculum development |
| Stakeholder mapping and engagement | <ul style="list-style-type: none"> ○ Conduct stakeholder mapping and engage stakeholders to support Project ECHO curriculum development and implementation e.g. potential hub panel members, guest presenters, facilitator (if external) |
| Recruitment strategy | <ul style="list-style-type: none"> ○ Develop a recruitment strategy for target group(s) to optimise participation ○ Engage potential partners to promote the program e.g. professional bodies, rural and remote agencies |
| Curriculum development | <ul style="list-style-type: none"> ○ Plan the curriculum prior to implementation ○ Provide core mandatory topics informed by the evidence; specialised topics in response to needs; and allow for unanticipated, emerging topics ○ Develop guidance document and template for didactic presentations related to format, relevance to practice and learning objectives |
| Continuing Professional Development (CPD) | <ul style="list-style-type: none"> ○ Establish CPD points for target group(s) through professional associations (e.g. for participation in an ECHO session, case presentation, completion of evaluation survey and/or e-assessment) |

Recommendations for the future development and implementation of high-quality Project ECHO programs

| | |
|---|---|
| Support for case presentations | <ul style="list-style-type: none"> ○ Engage and support target group(s) to deliver case presentations ○ Provide incentives such as CPD points ○ Consider developing a written summary of recommendations (with input from WVPHN staff and hub panel members) |
| Upskilling in Project ECHO | <ul style="list-style-type: none"> ○ Ensure WVPHN staff, external facilitators and panel members understand the key principles and elements of the Project ECHO model and implementation considerations ○ Ensure WVPHN staff have experience implementing a Project ECHO program and/or WVPHN have the resources to upskill staff via ECHO 'immersion training' (QLD ECHO Superhub) ○ At a minimum ensure that WVPHN staff and hub panel members observe other Project ECHO sessions prior to implementation |
| Good communication | <ul style="list-style-type: none"> ○ Ensure good communication between facilitator and project co-ordinator/officer; facilitator and hub panel members/guest presenters; and Project ECHO Hub team and Strategic Advisory Committee |
| Streamline and standardise administration processes | <ul style="list-style-type: none"> ○ Streamline and standardise processes to improve efficiency and ensure privacy is maintained (e.g. template emails to participants) |
| Monitoring and evaluation | <ul style="list-style-type: none"> ○ Develop a monitoring and evaluation framework prior to implementation ○ Establish clear objectives for monitoring and evaluating the Project ECHO program ○ Include stakeholder and participant feedback to support continuous quality improvement of the Project ECHO program and to assess the effectiveness of the program (participant satisfaction and impact) |
| Support from Project ECHO 'implementers' community of practice | <ul style="list-style-type: none"> ○ Seek the support of the QLD ECHO Superhub and Project ECHO Asia-Pacific ECHO Collaborative in the planning and implementation phases ○ Engage and/or collaborate with other institutions implementing Project ECHO programs in Australia especially other Primary Health Networks |

References for Final Evaluation Report

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Part D. Appendices

D.1 Appendix 1: Evaluation Framework for Project ECHO (Persistent Pain)

The Evaluation Framework was developed by the evaluation team in collaboration with WVPHN and partners. The Evaluation Framework describes the objectives of the evaluation of Project ECHO (Persistent Pain) Series 2 and the evaluation design.

See also: De Morgan S, Blyth F, Huckel Schneider C. *Evaluation of Project ECHO Persistent Pain Pilot: Evaluation Framework*. Menzies Centre for Health Policy, Faculty of Medicine and Health, The University of Sydney, October 2020.

Objectives of the evaluation of Project ECHO (Persistent Pain) Pilot

The **primary objectives** of the evaluation are to:

- i. Develop an evaluation framework and program logic that could be applied to other series of Project ECHO (Persistent Pain) and be adapted to other Project ECHO programs
- ii. Describe the implementation and curriculum of Project ECHO (Persistent Pain)
- iii. Assess participant outcomes of Project ECHO (Persistent Pain)
- iv. Provide opportunities for discussion between WVPHN, partners and the evaluation team during implementation aligned to a continuous improvement model
- v. Highlight key learnings and make recommendations for improvements in the implementation and curriculum of Project ECHO (Persistent Pain)

The **secondary objectives** of the evaluation are to:

- i. Explore whether the Project ECHO model is a suitable and effective Workforce Learning Platform for WVPHN
- ii. Explore how the Project ECHO model could be replicated to other health contexts
- iii. Make recommendations for the future development and implementation of high-quality Project ECHO programs

Evaluation outcomes

Two theoretical frameworks informed the outcomes of this evaluation: *Consolidated Framework for Implementation Research (CFIR)* developed by Damschroder and colleagues (2009) and the *Moore's Framework - An Outcome Framework for Planning and Assessing Continuing Medical Education (CME) Activities*, commonly used to evaluate Project ECHO programs.

The outcomes of the evaluation include:

- c. **Implementation outcomes:** description of governance and communication arrangements; curriculum development and topics selected; activities; changes to planned implementation; implementation successes and challenges; enablers to implementation; fidelity to Project ECHO Principles; feasibility; resourcing; perceived acceptability and appropriateness of Project ECHO as a capacity building initiative for WVPHN; and considerations for adapting Project ECHO (Persistent Pain) to other health conditions.
- d. **Participant outcomes:** participation; satisfaction with the content and format; perceived knowledge gaps and participant expectations; and self-reported outcomes related to learning, confidence, competence, performance, professional support, and patient benefits.

Table 9: Evaluation design of Project ECHO (Persistent Pain)

| Evaluation Objectives | | A | B | C | D | E | | F | | | G |
|-----------------------|--|---|----------------------------------|--|--|--|---|---|---|---|---|
| | | Rapid review | Evaluation framework development | Program Logic development | Program records | Stakeholder consultation | | Participant consultation and surveys | | | Translation activity |
| | | Rapid review of the literature about Project ECHO | Evaluation framework development | Online workshop to develop the Program Logic | Program records including participant enrolment and participation data, program activities and program costs | Online interviews/ regular meetings with Project ECHO Hub Team | Online interviews/ communication with Project ECHO 'Superhub' QLD | Participant online enrolment surveys and online satisfaction surveys (after each session) | Participant online outcome surveys (after the Series) | Online focus group of Project ECHO participants | Online presentation of the key findings of the evaluation |
| 1i | To develop an Evaluation Framework and Program Logic that could be applied to other series of Project ECHO (Persistent Pain) and be adapted to other Project ECHO programs | X | X | X | | | | | | | |
| 1ii | To describe the implementation and curriculum of Project ECHO (Persistent Pain) | | | | X | X | | | | | |
| 1iii | To assess participant outcomes of Project ECHO (Persistent Pain) | | | | X | X | X | X | X | X | |
| 1iv | To provide opportunities for feedback during implementation aligned to a continuous improvement model | | | | | X | | | | | |
| 1v | To highlight key learnings and make recommendations for improvements in the implementation and curriculum of Project ECHO (Persistent Pain) | X | X | X | X | X | X | X | X | X | X |
| 2i | To explore whether the Project ECHO model is a suitable and effective Workforce Learning Platform for WVPHN | X | | | X | X | | | X | X | |
| 2ii | To explore how the Project ECHO model could be replicated to other health contexts | X | | | | X | X | | | X | |
| 2iii | To make recommendations for the future development and implementation of high-quality Project ECHO programs | X | X | X | X | X | X | X | X | X | X |

D.2 Appendix 2: Program Logic Project ECHO (Persistent Pain) - Western Victoria Primary Health Network

The **overall objectives** of the Project ECHO (Persistent Pain) program are:

- i. To improve the competencies of primary care clinicians in best practice pain management to improve outcomes of people with chronic pain
- ii. To reduce healthcare disparities in the provision of pain care services between primary and tertiary health care and between metropolitan, rural and regional locations
- iii. To create a 'virtual community of practice' amongst primary care providers from different disciplines to facilitate the provision of co-ordinated, but geographically separated, multidisciplinary or interdisciplinary services.

The **specific aims** of the Project ECHO (Persistent Pain) program are:

- i. To improve knowledge, competence and performance of Project ECHO participants related to pain management
- ii. To improve knowledge, competence and performance of Project ECHO participants related to work and transport injuries and compensable settings
- iii. To improve knowledge-sharing and foster a sense of community related to pain management

Reference: De Morgan S, Blyth F, Huckel Schneider C, Walker P. *Program Logic Project ECHO (Persistent Pain)*. Menzies Centre for Health Policy, Faculty of Medicine and Health, The University of Sydney, November 2020.

| The Problem | Process evaluation | | | | Outcome evaluation | | |
|-----------------------------|---|--|--|---|---|--|--|
| | | | | | Post design/ Pre-post project design | Pre-post/ experimental project designs e.g. RCT/ data linkage to administrative datasets | |
| | INPUTS | OUTPUTS | | | OUTCOMES | | |
| What is invested /resources | Activities - <i>planning, engaging, executing, reflecting, and evaluating</i> | Activities - <i>Project ECHO session</i> | <i>Participation; Satisfaction; and Fidelity</i> | Short term <i>Learning (declarative, procedural); confidence; competence; self-reported performance; professional support; professional satisfaction; and sustainable cost</i> | Medium term <i>Performance (actual provider behaviour change; quality of care)</i> | Long term <i>Patient health / community health/ economic evaluation</i> | |

Program context - other education and training provided about chronic pain; COVID-19 pandemic; other health, economic, social, and political factors in which the Project ECHO program operates that impact positively or negatively on the implementation of Project ECHO (local, Statewide, Australian wide, world factors)

The Problem

Chronic Pain

- Chronic pain is debilitating. Approximately one in five Australians live with it, and more than two-thirds of those with chronic pain are of working age, so it has major economic consequences as well as causing individual disability, unemployment and loss of income, poorer quality of life, depression and anxiety.¹⁻³ (Australia's Health 2018, AIHW)

Long waitlists for specialist pain services

- The problem in Australia, as elsewhere, is accessing the few specialist pain services available, causing long waiting lists and limited reach to regional and remote areas.⁴
- In Australia, the median waiting time from referral receipt to initial clinical assessment for publicly funded outpatient adult pain management service was 150 days.⁵

Knowledge, skills, and confidence among primary care providers (PCPs) to deliver best-practice chronic pain management

- A large evidence base supports a biopsychosocial (BPS) approach, in which patients are engaged in, for example, active self-management, goal setting, cognitive behavioural therapies, and graded exercise.^{6,7} Most PCPs lack the skills and the confidence to deliver care aligned with the BPS model^{8,9} While health professionals are generally aware of the need to minimise or avoid prescribing opioids for chronic pain, most are unable to deliver proven non-pharmacological therapies.⁶

Opioid prescribing

- High opioid prescribing in Western Victoria PHN - All SA3s (Statistical Areas) within Western Victoria PHN have higher opioid prescription rates than Victoria (55,414 per 100,000) and Australia (55,126 per 100,000)
- High reliance on opioids triggering/exacerbating a cascade of comorbidities (WVPHN Needs Assessment Report 2019)
- Service provider consultations in the Grampians region identified there was a lack of support services for pain management, which can result in prescription misuse. (WVPHN Needs assessment Report 2017-18)
- Transport Accident Commission (TAC) clients and opioids: There are currently 2979 TAC clients that are active users of schedule 8 (and some schedule 4) medication. Of these, 90 clients are identified as currently exceeding 100mg on the oMEDD scale and would therefore present to GPs/pharmacists as a 'red notification' under SafeScript. Furthermore, these clients would require a Schedule 8 permit for the ongoing prescribing of these drugs. (TAC, Vic - data collection)

Work-related injuries

- Soft tissue (musculoskeletal) injuries are the most common work-related injuries, estimated at 57.1% of all work-related injury/illness in Australia in 2018.¹⁰
- The vast majority (92.7%) of all workers surveyed in 2018 reported having returned to work at any time since their work-related injury or illness. However, one-in-five workers (19.6%) reported making more than one attempt to return to work, consequently having to take additional time off since returning to work, due to their work-related injury or illness).¹⁰

The Problem

- Around three-in-eight (37.6%) workers who had returned to work reported that they worked reduced hours upon their return. Those who experienced mental illness were the most likely to work reduced hours upon returning to work (53.7%). Around three-in-eight (38.4%) workers who had returned to work reported that they were performing slightly different/modified duties upon their return to work, while 19.0% reported performing completely different duties.¹⁰
- While little time is lost from work for most cases, a small proportion have delayed recovery and delayed return to work. If a worker is absent from work for 3 months or more following injury, the outlook becomes significantly more negative.¹¹
- The longer an injured worker remains absent from work the greater is their risk of never returning to work; longer term ill-health and financial insecurity; and costs to the community.^{12 13}
20 days, the chance of ever getting back to work is 70% (WorkSafe Victoria)
45 days, the chance of ever getting back to work is 50% (“)
70 days, the chance of ever getting back to work is 35% (“)

Transport injuries

- A report¹⁴ examined the prevalence of problems with pain and mental health after transport-related major trauma using cases registered to the Victorian State Trauma Registry (VSTR). The report analysed 5,922 adult major trauma cases with transport-related injuries from 2008 to 2014 and survived to two years, 4,362 of whom had a confirmed Transport Accident Commission (TAC) claim. Findings:
 - 13-22% had clinically poor trajectories for pain and mental health outcomes
 - 57% reported persistent or worsening problems with pain
 - Only 20% reported full resolution of pain by 24 months
 - 11.4% of people with persistent pain did not receive treatment within 24 months
 - Western and North Western PHN have the highest prevalence of TAC clients with mental health or persistent pain
 - Most clients experience mental health and persistent pain together, much fewer experience one or the other
 - A client experiencing mental health and persistent pain is more likely to be female; middle aged; have a lower education level; have a mild-severe disability; have higher neighbourhood disadvantage; be unemployed at time of injury; or pre-existing substance use

Information sources: Regional data used where available

- Peer reviewed literature (*see Reference list*)
- WVPHN Needs Assessment Report 2019
- WVPHN Needs Assessment Report 2017-18
- Report: Giummarra M, Gabbe B. Persistent pain & mental health conditions after transport-related major trauma. 2017
- Transport Accident Commission (TAC), Victoria - data collection
- Australian Government. National Strategic Action Plan for Pain Management: Department of Health, 2019.¹⁵

| Process evaluation | | | |
|--|--|--|---|
| INPUTS | OUTPUTS | | |
| What is invested /resources | Activities - <i>planning, engaging, executing, reflecting, and evaluating</i> | Activities - <i>Project ECHO session</i> | <i>Participation; satisfaction; and fidelity</i> |
| <ul style="list-style-type: none"> Executive/senior leader buy-in: WVPHN and partners (WorkSafe/TAC) Funding <ul style="list-style-type: none"> WVPHN partners (WorkSafe/TAC) WVPHN staff: Project coordinator, facilitator/oversight, senior management Governance – Strategic Advisory Committee 'Pain champions' or 'Project ECHO champions' – WVPHN and/or partners Panel of multidisciplinary educators Guest presenters/ opinion leaders on particular topics Networks of primary care providers and 'pain' experts <ul style="list-style-type: none"> WVPHN networks Hub panel educators' networks Partners (WorkSafe/TAC) networks IT infrastructure /IT platform/IT support Training, resources, and support (ECHO community of practice) from QLD ECHO Superhub and Project ECHO Asia-Pacific ECHO Collaborative Project ECHO branding Evidence-base for Project ECHO (implementation and effectiveness) External evaluation team HR/contracts- new staff and commissioning evaluation team | <ul style="list-style-type: none"> Developing implementation strategy Establishing governance and communication arrangements Conducting regular Strategic Advisory Committee meetings Developing communication/ recruitment/ retention strategy to engage primary care providers, with targeted strategies for specific professional groups Establishing incentives for primary care providers e.g. CPD points from a range of professional associations Engaging hub panel educators from a range of disciplines Recruiting and enrolling primary care providers Conducting Learning Needs Analysis (LNA) Developing best-practice curriculum core topics and additional topics (in response to LNA, emerging local needs) Engaging presenters (hub panel educators and guest presenters) from a range of disciplines Confirming presenters for each session didactic and providing guidance about format, audience, and content Providing support for spoke case presentations including reassurance and guidance about format and content Providing information and links to relevant resources to primary care providers after each session Engaging with QLD ECHO Superhub and Project ECHO Asia-Pacific ECHO Collaborative Developing evaluation framework and evaluation tools Ongoing quality improvement debriefs based on hub experience, spoke feedback and data Process and outcome evaluation e.g. disseminate surveys, conduct interviews and focus groups, collate program records | <ul style="list-style-type: none"> Conducting Project ECHO sessions on a biweekly (every two weeks) basis Conducting didactic presentations Primary care providers present cases and receive expert feedback Primary care providers who present cases receive a written summary of the recommendations | <ul style="list-style-type: none"> Participation of primary care providers in Project ECHO sessions Profile of participants – profession type, patient caseload, geographical location, WorkSafe clients, TAC clients Satisfaction – content/ format/ technology/ interest in case presentation/ how Project ECHO compares to other models of education Fidelity- extent of adherence to the Project ECHO Principles and core components, and rationale for adaptations |

| Outcome evaluation | | |
|--|---|--|
| Post design/ Pre-post project design | Pre-post/ experimental project design e.g. RCT/ data linkage to administrative datasets | |
| OUTCOMES | | |
| Short term | Medium term | Long term |
| <i>Learning (declarative, procedural); confidence; competence; self-reported performance; professional support; professional satisfaction; and sustainable cost</i> | <i>Performance (actual provider behaviour change; quality of care)</i> | <i>Patient health / community health/ economic evaluation</i> |
| <p>Participant outcomes</p> <p><u>Learning</u> (self-report; demonstrated in the education setting)</p> <ul style="list-style-type: none"> Knowledge gain of participants about best-practice chronic pain management underpinned by the biopsychosocial model of pain management (declarative knowledge, procedural learning) e.g. knows what, knows how Knowledge gain of participants about work and transport injuries and compensable settings <p><u>Confidence</u> (self-report)</p> <ul style="list-style-type: none"> Improved confidence/self-efficacy <p><u>Competence</u> (self-report; demonstrated in the education setting)</p> <ul style="list-style-type: none"> Improved skills/ competency <p><u>Performance</u> (self-report)</p> <ul style="list-style-type: none"> Perceived provider behaviour change/perceived improved quality of care/perceived impact on patients <p><u>Professional support</u> (self-report)</p> <ul style="list-style-type: none"> Reduced perceptions of professional isolation (increased sense of belonging to a community of practice') <p><u>Professional satisfaction</u>¹¹ (self-report)</p> <ul style="list-style-type: none"> Improve provider experience <p><u>Sustainable cost</u>¹²</p> <ul style="list-style-type: none"> Efficient use of resources, feasible to implement | <p>Participant outcomes</p> <p><u>Performance</u> (actual)</p> <ul style="list-style-type: none"> Provider behaviour change e.g. opioid prescribing, referral to allied health for physical and behavioural health therapy, reduced referrals to specialists in the tertiary setting Improved quality of care <p><u>Professional support</u> (actual) and <u>referral pathways</u></p> <ul style="list-style-type: none"> Increased knowledge-sharing among spokes outside ECHO sessions Increased knowledge-sharing between hub experts and spokes outside ECHO sessions Increased referrals (bidirectional) between spokes and between spokes and hub experts/ guest presenters (related to patient pain severity/functioning, capacity, expertise, and location) | <p>Patient outcomes</p> <p><u>Patient experience of care</u>¹³</p> <ul style="list-style-type: none"> Improved patient experience of care <p><u>Patient health outcomes</u>¹⁴</p> <ul style="list-style-type: none"> Improved patient self-efficacy Reduced pain severity and interference with activities Improved psychological functioning Reduced pain catastrophising Improved physical functioning Improved work productivity Reduced hospitalisations Reduced stress, including financial stress, for patients and families due to reduced travel, cost, and work absence for specialist appointments <p>Health system outcomes</p> <ul style="list-style-type: none"> Improved <u>community health</u>⁴ Reduced <u>healthcare disparities</u> in the provision of pain care services between primary and tertiary health care and between metropolitan, rural, and regional locations Shorter <u>wait times for specialists</u> at the tertiary setting Intended and unintended consequences related to <u>referrals</u> and potentially shifting groups of patients to certain locations or providers with known capacity to manage chronic pain <u>Cost-effective/</u> positive cost-benefit analysis/ positive return on investment e.g. reduced costs related to transportation for health services, reduced health cost due to complications⁴ |

¹¹ Quadruple Aim 3: Improved Provider Satisfaction: a) Increased clinician and staff satisfaction; b) Evidence of leadership and teamwork; c) Quality improvement culture in practice

¹² Quadruple Aim 4: Sustainable Cost: a) Efficiency and effectiveness of services; b) Increased resourcing to primary care; c) Evaluation of commissioning

¹³ Quadruple Aim 1: Patient Experience of Care; a) Safe and effective care; b) Timely and equitable access; c) Patient and family needs met

¹⁴ Quadruple Aim 2: Quality and Population Health: a) Improved health outcomes; b) Reduced disease burden; c) Improvement in individual behavioural and physical health

Program Logic Project ECHO (Persistent Pain) - Western Victoria Primary Health Network (1 page)

| The Problem | Process evaluation | | | | Outcome evaluation | | |
|--|--|--|--|---|--|---|--|
| | | | | | Post design/ Pre-post project design | Pre-post/ experimental project design e.g. RCT/ data linkage to administrative datasets | |
| | INPUTS | OUTPUTS | | | OUTCOMES | | |
| What is invested /resources | Activities - <i>planning, engaging, executing, reflecting, and evaluating</i> | Activities - <i>Project ECHO session</i> | <i>Participation; Satisfaction; and Fidelity</i> | Short term <i>Learning (declarative, procedural); Confidence; Competence; Self-reported performance; Professional support; and Sustainable cost</i> | Medium term <i>Performance (provider behaviour change)</i> | Long term <i>Patient health / Community health/ Economic evaluation</i> | |
| <ul style="list-style-type: none"> The high burden of chronic pain on individuals, families, communities, and society with approximately 1 in 5 people living with chronic pain Long waiting lists for pain specialist services Lack of specialist services in Western Victoria High opioid prescribing in Western Victoria Lack of confidence and skills among primary care providers to deliver best practice chronic pain management aligned with the biopsychosocial model Delayed recovery and delayed return to work for some injured workers Persistent pain and mental health outcomes for some people after transport-related major trauma <p><i>For more information and data sources see the main body of this program logic report.</i></p> | <ul style="list-style-type: none"> Executive/senior leader buy-in: WVPHN and partners (WorkSafe/TAC) Funding <ul style="list-style-type: none"> WVPHN partners (WorkSafe/TAC) WVPHN staff: Project coordinator, facilitator/oversight, senior management Governance – Strategic Advisory Committee 'Pain champions' or 'Project ECHO champions' – WVPHN and/or partners Panel of multidisciplinary educators Guest presenters/ opinion leaders on particular topics Networks of primary care providers and 'pain' experts <ul style="list-style-type: none"> WVPHN networks Hub panel educators' networks Partners (WorkSafe/TAC) networks IT infrastructure /IT platform/IT support Training, resources, and support (ECHO community of practice) from QLD ECHO Superhub and Project ECHO Asia-Pacific ECHO Collaborative Project ECHO branding Evidence-base for Project ECHO (implementation and effectiveness) External evaluation team HR/contracts- new staff and commissioning evaluation team | <ul style="list-style-type: none"> Developing implementation strategy Establishing governance and communication arrangements Conducting regular Strategic Advisory Committee meetings Developing communication/ recruitment/ retention strategy to engage primary care providers, with targeted strategies for specific professional groups Establishing incentives for primary care providers e.g. CPD points from a range of professional associations Engaging hub panel educators from a range of disciplines Recruiting and enrolling primary care providers Conducting Learning Needs Analysis (LNA) Developing best-practice curriculum core topics and additional topics (in response to LNA, emerging local needs) Engaging presenters (hub panel educators and guest presenters) from a range of disciplines Confirming presenters for each session didactic and providing guidance about format, audience, and content Providing support for spoke case presentations including reassurance and guidance about format and content Providing information and links to relevant resources to primary care providers after each session Engaging with QLD ECHO Superhub and Project ECHO Asia-Pacific ECHO Collaborative Developing evaluation framework and evaluation tools Ongoing quality improvement debriefs based on hub experience, spoke feedback and data Process and outcome evaluation e.g. disseminate surveys, conduct interviews and focus groups, collate program records | <ul style="list-style-type: none"> Conducting Project ECHO sessions on a biweekly (every two weeks) basis Conducting didactic presentations Primary care providers present cases and receive expert feedback Primary care providers who present cases receive a written summary of the recommendations | <ul style="list-style-type: none"> Participation of primary care providers in Project ECHO sessions Profile of participants – profession type, patient caseload, geographical location, WorkSafe clients, TAC clients Satisfaction – content/ format/ technology/ interest in case presentation/ how Project ECHO compares to other models of education Fidelity- extent of adherence to the Project ECHO Principles and core components, and rationale for adaptations | <p>Participant outcomes</p> <p><u>Learning</u> (self-report; demonstrated in the education setting)</p> <ul style="list-style-type: none"> Knowledge gain of participants about best-practice chronic pain management underpinned by the biopsychosocial model of pain management (declarative knowledge, procedural learning) e.g. knows what, knows how Knowledge gain of participants about work and transport injuries and compensable settings <p><u>Confidence</u> (self-report)</p> <ul style="list-style-type: none"> Improved confidence/self-efficacy <p><u>Competence</u> (self-report; demonstrated in the education setting)</p> <ul style="list-style-type: none"> Improved skills/ competency <p><u>Performance</u> (self-report)</p> <ul style="list-style-type: none"> Perceived provider behaviour change/perceived improved quality of care <p><u>Professional support</u> (self-report)</p> <ul style="list-style-type: none"> Reduced perceptions of professional isolation (increased sense of belonging to a community of practice¹⁵) Improve provider experience <u>Sustainable cost</u>¹⁶ Efficient use of resources, feasible to implement | <p>Participant outcomes</p> <p><u>Performance</u> (actual)</p> <ul style="list-style-type: none"> Provider behaviour change e.g. opioid prescribing, referral to allied health for physical and behavioural health therapy, reduced referrals to specialists in the tertiary setting Improved quality of care <p><u>Professional support</u> (actual) and <u>referral pathways</u></p> <ul style="list-style-type: none"> Increased knowledge-sharing among spokes outside ECHO sessions Increased knowledge-sharing between hub experts and spokes outside ECHO sessions Increased referrals (bidirectional) between spokes and between spokes and hub experts/ guest presenters (related to patient pain severity/functioning, capacity, expertise, and location) | <p>Patient outcomes</p> <p><u>Patient experience of care</u>¹⁷</p> <ul style="list-style-type: none"> Improved patient experience of care <p><u>Patient health outcomes</u>¹⁸</p> <ul style="list-style-type: none"> Improved patient self-efficacy Reduced pain severity and interference with activities Improved psychological functioning Reduced pain catastrophising Improved physical functioning Improved work productivity Reduced hospitalisations Reduced stress, including financial stress, for patients and families due to reduced travel, cost, and work absence for specialist appointments <p>Health system outcomes</p> <ul style="list-style-type: none"> Improved <u>community health</u>⁴ Reduced <u>healthcare disparities</u> in the provision of pain care services between primary and tertiary health care and between metropolitan, rural, and regional locations Shorter <u>wait times for specialists</u> at the tertiary setting Intended and unintended consequences related to <u>referrals</u> and potentially shifting groups of patients to certain locations or providers with known capacity to manage chronic pain <u>Cost-effective</u>/ positive cost-benefit analysis/ positive return on investment e.g. reduced costs related to transportation for health services, reduced health cost due to complications⁴ |

Program context - other education and training provided about chronic pain; COVID-19 pandemic; other health, economic, social, and political factors in which the Project ECHO program operates that impact positively or negatively on the implementation of Project ECHO (local, Statewide, Australian wide, world factors)

¹⁵ Quadruple Aim 3: Improved Provider Satisfaction: a) Increased clinician and staff satisfaction; b) Evidence of leadership and teamwork; c) Quality improvement culture in practice

¹⁶ Quadruple Aim 4: Sustainable Cost: a) Efficiency and effectiveness of services; b) Increased resourcing to primary care; c) Evaluation of commissioning

¹⁷ Quadruple Aim 1: Patient Experience of Care; a) Safe and effective care; b) Timely and equitable access; c) Patient and family needs met

¹⁸ Quadruple Aim 2: Quality and Population Health: a) Improved health outcomes; b) Reduced disease burden; c) Improvement in individual behavioural and physical health

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D.3 Appendix 3: Project ECHO (Persistent Pain) Series 2
Evaluation tools

Interview schedule for WVPHN staff - Project coordinator/officer and facilitator/manager

Interviewer: I would like to record the interview for note-taking purposes only. No quotes will be used in the final report. Yes/No to recording.

About you

- i. What is your role in WVPHN? How long have you been in this role?
- ii. What is your role in the implementation of Project ECHO Series 2?
- iii. Were you involved in Series 1?

Decision to implement Project ECHO (Persistent Pain) Series 1 and 2

- i. Why did WVPHN decide to implement Project ECHO (Persistent Pain)? What was the role of the partners in this decision? (WorkSafe/TAC)?
- ii. Was Project ECHO seen to be an appropriate program for primary care providers? Was Project ECHO seen to be an appropriate program to address chronic pain?
- iii. Was Project ECHO perceived to be an agreeable or satisfactory education intervention?
- iv. Did Project ECHO align with WVPHN values? Please describe
- v. Was Project ECHO seen to be a feasible program to implement? Did your PHN know about the costs and resources involved in implementing Project ECHO? Please describe.

Pain champions/Project ECHO champions

- i. Do you have any 'Pain champions' and/or 'Project ECHO champions' that helped to drive the decision to implement Project ECHO and to provide guidance about implementation of Project ECHO? If yes, please describe.

WVPHN Project ECHO model

- i. WVPHN engaged a panel of multidisciplinary educators to form the "Hub": Please describe the model you used to form the Hub, who was involved and the type of professional backgrounds of Hub members.
- ii. What were the factors involved in deciding to form this type of Hub in comparison to a traditional multidisciplinary team in a tertiary hospital?
- iii. What do you think are the advantages and disadvantages of using this type of Hub model compared to a tertiary hospital team?
- iv. Did you have any challenges engaging Hub members? Please describe
- v. Did Hub members receive any funding to support their time in Series 2? Please describe.
- vi. (post series) What other Project ECHO programs for other conditions have been implemented during Series 2 or are planned after Series 2?

WVPHN Staffing

- i. Were any new staff (may include yourself) hired to implement Project ECHO? Series 2? Series 1? What FTE?
- ii. Did any existing staff incorporate Project ECHO related activities into their existing role e.g. oversight/facilitator? Please describe their role(s)? Series 2? Series 1?

Project ECHO training, resources and support from QLD ECHO Superhub

- i. Have you received training in Project ECHO? If yes, please describe
- ii. Have any other WVPHN staff or Project ECHO Hub team member received training in Project ECHO? If yes, please describe

- iii. Is training a requirement of the license with Project ECHO? Please describe
- iv. Have you used any Project ECHO resources? If yes, please describe. Have they been helpful?
- v. Have you used received any support from QLD ECHO Superhub? If yes, please describe. Has this been helpful?
- vi. Please describe any suggestions for improvements related to Project ECHO training, resources and support from QLD ECHO Superhub for Series 3.

Governance and leadership structure and communication within the Project ECHO Hub team

- i. Please describe the governance and leadership structure including the members of the Strategic Advisory Committee, the Project ECHO Hub team and any other committees
- ii. Have any members changed since the beginning of Series 2? Has this created any challenges e.g. loss of Project ECHO knowledge etc?
- iii. How often does the Strategic Advisory Committee meet? What is discussed? Are the outcomes recorded? Is the discussion used for quality improvement? If yes, please describe
- iv. Does the Project ECHO Hub team meet regularly? What is discussed? Are the outcomes recorded? Is the discussion used for quality improvement? Does this feedback go the Strategic Advisory Committee? If yes, please describe
- v. How well did the governance arrangements and communication work for Series 2? What worked well and what could be improved for Series 3 related to the governance arrangements or timing or timeliness of meetings or purpose of these meetings?

Monitoring and feedback strategies for continuous improvement

- i. Are there any other strategies that we haven't discussed for monitoring and feedback e.g. spoke feedback and data/satisfaction surveys?
- ii. Please describe any suggestions for improvements for Series 3 related to any other strategies for monitoring and feedback or the satisfaction surveys.

IT Infrastructure, IT platform and support

- i. What IT infrastructure was needed to implement Project ECHO? IT platform? Please describe any new equipment or software?
- ii. Has IT support been readily available and helpful?
- iii. Was support/training provided for IT issues to 'spokes' and 'hub'?
- iv. Were there any challenges to technology use?
- v. Please describe any suggestions for improvements for Series 3.

Communication/recruitment/retention strategy for primary care providers and implementation plan

- i. Who was your intended audience for the Series? Type of primary care provider? Geographical location? Values and priorities?
- ii. How were potential participants identified for Series 2? e.g from Series 1, other
- iii. How were potential participants informed about Series 2? Were there any changes in these processes during Series 2? Please describe
- iv. What were the processes to enrol/onboard participants in the Series? Were there any changes in these processes during Series 2? Please describe
- v. Were participants encouraged to attend all sessions in Series 2? Please describe
- vi. What are the reasons do you think for participants not attending all the sessions?
- vii. What communication during and between sessions was provided about the program to keep participants engaged?
- viii. Were participants informed about the session topics before Series 2 and/or prior to each session?

- ix. Were any other strategies used to maintain attendance (and decrease attrition)?
- x. Did you consider any incentives for primary care providers to complete all sessions (e.g. CPD accreditation, MBS billing items)? If yes, please describe. If not, what were the barriers to implementing incentives?
- xi. What staff and resources were used to implement the communication strategy – e.g. Project Officer, WVPHN comms team, WVPHN primary care provider networks, partners
- xii. Has engagement and retention of primary care providers met expectations? Please describe
- xiii. Overall, what do you think are the barriers for primary care providers participating at all in Project ECHO? Are there any strategies that you could implement to address these barriers?
- xiv. Are participant characteristics (e.g. profession, geographic location) of those that attended sessions consistent with the program objectives?
- xv. Were participants informed that Series 2 would be evaluated and what would be required e.g. satisfaction surveys after each session, outcome survey and focus group after Series 2?
- xvi. Was there a detailed implementation plan developed prior to Series 2? Please describe
- xvii. Please describe any suggestions for improvements for Series 3 related to the communication/recruitment/ retention strategy, and implementation plan

Format and frequency of the sessions

- i. Please describe the format of the session i.e.. didactic followed by case -presentation. Did some sessions vary from this traditional format? If so, please describe and why?
- ii. Please describe the frequency of the sessions i.e. every two weeks and any changes and why?

Curriculum and didactic presentations

- i. Please provide (in a document) a description of the curriculum topics for each session.
- ii. Were the learning objectives defined prior to the Series 2? If yes, please provide documentation. If yes, how were potential participants informed of these learning objectives?
- iii. Please describe how the curriculum was developed? Who was involved in the curriculum development?
- iv. How did you choose the topics? Were there mandated topics and unanticipated, emerging topics? In other words, was the curriculum based on needs assessments and/or emerging local needs? How did you assess for local needs?
- v. Did you use any pre-existing resources?
- vi. Was the curriculum finalised prior to Series 2 or emerging during Series 2?
- vii. Did you seek any academic accreditation for the Series (CPD points) (this may have been discussed earlier) If not, what were the barriers to doing this?
- viii. Please describe any suggestions for improvements for Series 3 related to the curriculum and curriculum development.
- ix. Thinking about the didactic presentations, when did you confirm presenters for each didactic presentation?
- x. Did you experience any challenges recruiting panelists or guest presenters to present the didactics?
- xi. Please describe any suggestions for improvements for Series 3 related to recruitment of presenters for the didactic presentations.

Case presentation

- i. Please describe how participants were recruited to deliver case presentations.
- ii. Did you experience any challenges recruiting participants to deliver case presentations? What do you think are the barriers for participants to deliver case presentations? What do you think are the benefits?
- iii. Please describe the support WVPHN and/or panellists provided to participants to deliver case presentations

- iv. Please provide (in a document) a description of the cases presented (if this data is available)
- v. Please describe any suggestions for improvements for Series 3 related to case presentations.

COVID-19 pandemic

- i. How did COVID-19 pandemic affect implementation of the Project ECHO program?
- ii. What were the challenges?
- iii. Were there any unexpected benefits?

Other context factors

- i. Were there any other factors related to the health, economic, social, and political environment (besides COVID-19 pandemic) in which the Project ECHO program operated that you think impacted positively or negatively on the implementation of Series 2? Factors can be local, statewide or Australian wide.

Comparison to other education and training

- i. How would you compare Project ECHO to other models of education and training provided by WVPHN or others (e.g. webinars, workshops)? What do you perceive as the value-add?

Costs

- i. Could you please provide documentation on direct and indirect costs, start-up and on-going costs for Series 2 (this could be provided at the end of Series 2).
- ii. (post series) How feasible in terms of resources (staff, time, costs) is Project ECHO for WVPHN?
- iii. (post series) What factors help WVPHN to contain costs?

Overall key learnings and recommendations for improvements for Series 3

- i. Overall, what aspects of Series 2 have been successful and what aspects could be improved? This information will help in the planning of Series 3.
- ii. (post series) What advice would you give other PHNs about the key factors to implementing and sustaining a Project ECHO program?

Series 1

- i. If you were involved in Series 1, briefly describe the key learnings

Any other comments?

Thank you for your time

Interview schedule for Partner representative- WorkSafe/TAC; and Panel Hub team member

Interviewer: I would like to record the interview for note-taking purposes only. No quotes will be used in the final report. Yes/No to recording.

About you

- i. What is your role in WorkSafe/TAC? How long have you been in this role?
- ii. What is your role in the implementation of Project ECHO Series 2?
- iii. Were you involved in Series 1?
- iv. What motivated you to become involved in the Project ECHO series?

Decision to implement Project ECHO (Persistent Pain) Series 1 and 2

- i. What was the role of the partners (WorkSafe/TAC) and Barwon Health in WVPHN's decision to implement Project ECHO (Persistent Pain)?
- ii. Did the partners see Project ECHO as an appropriate program for primary care providers? Was Project ECHO seen to be an appropriate program to address chronic pain?
- iii. Was Project ECHO perceived to be an agreeable or satisfactory education intervention?
- iv. Did Project ECHO align with the partners values? Please describe
- v. Was Project ECHO seen to be a feasible program to implement by WVPHN and partners? Did the partners know about the costs and resources involved in implementing Project ECHO? How was the funding amount from the partners decided?

Pain champions/Project ECHO champions

- i. Do the partners have any 'Pain champions' and/or 'Project ECHO champions' (this may be you) that helped to drive the decision to implement Project ECHO and to provide guidance about implementation of Project ECHO? If yes, please describe.

WVPHN Project ECHO model

- i. WVPHN engaged a panel of multidisciplinary educators to form the "Hub": Please describe the model that was used to form the Hub, who was involved and the type of professional backgrounds of Hub members.
- ii. What were the factors involved in deciding to form this type of Hub in comparison to a traditional multidisciplinary team in a tertiary hospital?
- iii. What do you think are the advantages and disadvantages of using this type of Hub model compared to a tertiary hospital team?
- iv. Did you have any challenges engaging Hub members? Please describe

Funding

- i. Did you/do you receive funding for your participation/assistance in Project ECHO by the partner organisation(s) or WVPHN?

Project ECHO training, resources and support from QLD ECHO Superhub

- i. Have you received training in Project ECHO? If yes, please describe
- ii. Have you used any Project ECHO resources? If yes, please describe. Have they been helpful?
- iii. Have you used received any support from QLD ECHO Superhub? If yes, please describe. Has this been helpful?
- iv. Please describe any suggestions for improvements related to Project ECHO training, resources and support from QLD ECHO Superhub for Series 3.

Governance and leadership structure and communication within the Project ECHO Hub team

- i. Please describe the governance and leadership structure including the members of the Strategic Advisory Committee, the Project ECHO Hub team and any other committees
- ii. Have any members changed since the beginning of Series 2? Has this created any challenges e.g. loss of Project ECHO knowledge etc?
- iii. How often does the Strategic Advisory Committee meet? What is discussed? Are the outcomes recorded? Is the discussion used for quality improvement? If yes, please describe
- iv. Does the Project ECHO Hub team meet regularly? What is discussed? Are the outcomes recorded? Is the discussion used for quality improvement? Does this feedback go the Strategic Advisory Committee? If yes, please describe
- v. How well did the governance arrangements and communication work for Series 2? What worked well and what could be improved for Series 3 related to the governance arrangements or timing or timeliness of meetings or purpose of these meetings?

Communication/recruitment/retention strategy for primary care providers

- i. Were participants encouraged to attend all sessions in Series 2? Please describe
- ii. What are the reasons do you think for participants not attending all the sessions?
- iii. What communication during and between sessions was provided about the program to keep participants engaged?
- iv. Were any other strategies used to maintain attendance (and decrease attrition)?
- v. Did you consider any incentives for primary care providers to complete all sessions (e.g. CPD accreditation, MBS billing items)? If yes, please describe. If not, what were the barriers to implementing incentives?
- vi. Has engagement and retention of primary care providers met expectations? Please describe
- vii. Overall, what do you think are the barriers for primary care providers participating at all in Project ECHO? Are there any strategies that could be implemented to address these barriers?
- viii. Are participant characteristics (e.g. profession, geographic location) of those that attended sessions consistent with the program objectives?
- ix. Please describe any suggestions for improvements for Series 3 related to the communication/recruitment/ retention strategy.

Format and frequency of the sessions

- i. Please describe the format of the session i.e.. didactic followed by case -presentation. Did some sessions vary from this traditional format? If so, please describe and why?

Curriculum and didactic presentations

- i. Please describe how the curriculum was developed?
- ii. Was the curriculum finalised prior to Series 2 or emerging during Series 2?
- iii. Did you seek any academic accreditation for the Series (CPD points) (this may have been discussed earlier) If not, what were the barriers to doing this?
- iv. Please describe any suggestions for improvements for Series 3 related to the curriculum and curriculum development.
- v. Thinking about the didactic presentations, when did you confirm presenters for each didactic presentation?
- vi. Did you experience any challenges recruiting panelists or guest presenters to present the didactics?
- vii. Please describe any suggestions for improvements for Series 3 related to recruitment of presenters for the didactic presentations.

Case presentation

- i. Please describe how participants were recruited to deliver case presentations.
- ii. Did you experience any challenges recruiting participants to deliver case presentations? What do you think are the barriers for participants to deliver case presentations? What do you think are the benefits?
- iii. Please describe the support WVPHN and/or panelists provided to participants to deliver case presentations
- iv. Please describe any suggestions for improvements for Series 3 related to case presentations.

COVID-19 pandemic

- i. How did COVID-19 pandemic affect implementation of the Project ECHO program?
- ii. What were the challenges?
- iii. Were there any unexpected benefits?

Other context factors

- i. Were there any other factors related to the health, economic, social, and political environment (besides COVID-19 pandemic) in which the Project ECHO program operated that you think impacted positively or negatively on the implementation of Series 2? Factors can be local, statewide or Australian wide.

Comparison to other education and training

- i. How would you compare Project ECHO to other models of education and training provided by WVPHN or others (e.g. webinars, workshops)? What do you perceive as the value-add?

Overall key learnings and recommendations for improvements for Series 3

- i. Overall, what aspects of Series 2 have been successful and what aspects could be improved? This information will help in the planning of Series 3.

Any other comments?

Thank you for your time

Interview schedule for Project ECHO Hub Team

Interviewer: I would like to record the interview for note-taking purposes only. No quotes will be used in the final report. Yes/No to recording.

About you

- i. What is your professional role and your role in the implementation of Project ECHO Series 2?
- ii. Were you involved in Series 1?
- iii. What motivated you to become involved in the Project ECHO series?

Overall, what aspects of Series 2 have been successful and what aspects could be improved?

WVPHN Project ECHO model

- i. WVPHN engaged a panel of multidisciplinary educators to form the "Hub": Please describe the model that was used to form the Hub
- ii. What were the factors involved in deciding to form this type of Hub in comparison to a traditional multidisciplinary team in a tertiary hospital?
- iii. What do you think are the advantages and disadvantages of using this type of Hub model compared to a tertiary hospital team?

Funding

- i. Did you/do you receive funding for your participation/assistance in Project ECHO by WVPHN?

Project ECHO training, resources and support from QLD ECHO Superhub

- i. Have you received training in Project ECHO? If yes, please describe
- ii. Have you used any Project ECHO resources? If yes, please describe. Have they been helpful?
- iii. Have you used received any support from QLD ECHO Superhub? If yes, please describe. Has this been helpful?
- iv. Please describe any suggestions for improvements related to Project ECHO training, resources and support from QLD ECHO Superhub for Series 3.

Governance and leadership structure and communication within the Project ECHO Hub team

- i. Does the Project ECHO Hub team meet regularly? What is discussed? Are the outcomes recorded? Is the discussion used for quality improvement? Does this feedback go the Strategic Advisory Committee? If yes, please describe
- ii. How well did the governance arrangements and communication work for Series 2? What worked well and what could be improved for Series 3 related to the governance arrangements or timing or timeliness of meetings or purpose of these meetings?

Communication/recruitment/retention strategy for primary care providers

- i. Has engagement and retention of primary care providers met expectations? Please describe
- ii. Overall, what do you think are the barriers for primary care providers participating in Project ECHO? Are there any strategies that could be implemented to address these barriers?
- iii. Are participant characteristics (e.g. profession, geographic location) of those that attended sessions consistent with the program objectives?
- iv. Please describe any suggestions for improvements for Series 3 related to the communication/recruitment/ retention strategy.

Curriculum and didactic presentations

- i. Please describe how the curriculum was developed?
- ii. Please describe any suggestions for improvements for Series 3 related to the curriculum and curriculum development.
- iii. Please describe any suggestions for improvements for Series 3 related to recruitment of presenters for the didactic presentations.

Case presentation

- i. Did you experience any challenges recruiting participants to deliver case presentations? What do you think are the barriers for participants to deliver case presentations? What do you think are the benefits?
- ii. Please describe the support WVPHN and/or panelists provided to participants to deliver case presentations
- iii. Please describe any suggestions for improvements for Series 3 related to case presentations.

COVID-19 pandemic

- i. How did COVID-19 pandemic affect implementation of the Project ECHO program?
- ii. What were the challenges?
- iii. Were there any unexpected benefits?

Other context factors

- i. Were there any other factors related to the health, economic, social, and political environment (apart from COVID-19 pandemic) in which the Project ECHO program operated that you think impacted positively or negatively on the implementation of Series 2? Factors can be local, statewide or Australian wide.

Comparison to other education and training

- i. How would you compare Project ECHO to other models of education and training provided by WVPHN or others (e.g. webinars, workshops)? What do you perceive as the value-add?

Overall key learnings and recommendations for improvements for Series 3

- i. Overall, what aspects of Series 2 have been successful and what aspects could be improved? This information will help in the planning of Series 3.

Any other comments?

Thank you for your time

Interview schedule for Project ECHO 'Superhub' QLD

Interviewer: - I would like to record the interview for note-taking purposes only. No quotes will be used in the final report. Yes/No to recording.

<https://www.childrens.health.qld.gov.au/chq/health-professionals/integrated-care/project-echo/>

About you and the Project ECHO 'Superhub' - Queensland Government-Children's Health Queensland Hospital and Health Service

- i. What is your professional role(s) and your role(s) in the Project ECHO 'Superhub' at the Children's Health Queensland Hospital and Health Service?
- ii. Please describe how the Queensland Government- Children's Health Queensland Hospital and Health Service became the 'Superhub' for Project ECHO.

Support for new Project ECHO programs

- i. How does the Project ECHO 'Superhub' support new Project ECHO programs? Please describe and give examples.

Western Victoria Primary Health Network (WVPHN) Project ECHO model

- i. WVPHN engaged a panel of multidisciplinary educators to form the "Hub". What do you think are the advantages and disadvantages of using this type of Hub model compared to a tertiary hospital team?

Facilitation

- i. Is there any ECHO training available to support facilitators?

Curriculum development

- i. From your experience, how would you recommend the curriculum be developed. Prior to the Series, emerging topics? Both? Using existing resources? Other?
- ii. Is there any ECHO guidelines about to develop didactics- format etc

Case presentations

- i. Are there any ECHO guidelines/resources/training available to support case presentations?

Telementoring

- i. Is there any ECHO training about telementoring, active listening etc

Payment of panellist educators

- i. From your experience, is payment usually needed to engage panellist educators at the Hub and to maintain their commitment to the program?

Key enablers for implementation of Project ECHO

- i. From your experience, what would you say are the key enablers for implementation of Project ECHO?

Key enablers for sustainability of Project ECHO

- i. From your experience, what would you say are the key enablers for sustainability of Project ECHO?
- ii. Do you have any suggestions to overcome the funding barrier e.g. Project ECHO participants use MBS billing items?

Comparison to other education and training

- i. How would you compare Project ECHO to other models of education and training e.g. webinars, workshops? What do you perceive as the value-add?

Adaptation of Project ECHO to other health conditions

- i. Western Victoria Primary Health Network would like to explore how Project ECHO (Persistent Pain) could be adapted to other conditions. What would you say are the key considerations and/or key processes they should be considered to achieve this?

Thank you for your time

Participant enrolment survey

| Label | Question asked | Options |
|---|---|---|
| Registration | Whether participants registered or not | 1 = Registered 2 = Did not register |
| Enrolment type | To distinguish participants from others | 1 = Participant 2 = Unregistered participant (code not used) 3 = Panel 4 = Guest speaker 5 = Facilitator 6 = Observer 7 = WorkSafe/TAC 8 = W/PHN staff |
| Profession | Please identify your profession | 1 = GP 2 = Nurses and Nurse Practitioner 3 = Exercise Physiologist 4 = Occupational Therapist 5 = Osteopath 6 = Pharmacist 7 = Physiotherapist 8 = Psychologist 9 = Other |
| Profession other | If other, please specify | Open ended question |
| Geographic Location (postcode) | Postcode of your workplace | No limit |
| How many patients do you manage? | How many patients with persistent pain do you manage? | 1 = <10 2 = 10-30 3 = >30 |
| Managing WorkSafe clients | Have you treated TAC clients in the past 12 months? | 1 = Yes 2 = No |
| Managing WorkSafe clients number | If Yes, approximately how many? | Open ended response |
| Managing TAC clients | Have you treated WorkSafe clients in the past 12 months? | 1 = Yes 2 = No |
| Managing TAC clients number | If Yes, approximately how many? | Open ended response |
| Expectations | What would you like to gain from participating in Project ECHO Persistent Pain? | Open ended response |

Participant satisfaction surveys

Post session satisfaction survey questions

1. How well did the ECHO deliver balanced and objective, evidence-based content? (Sessions 1-5, 7-10)
 - Poor (1)
 - Fair (2)
 - Good (3)
 - Very good (4)
 - Excellent (5)
2. Opportunities to ask questions were (Sessions 1-10):
 - Poor (1)
 - Fair (2)
 - Good (3)
 - Very good (4)
 - Excellent (5)
3. The pace of the ECHO session was (Sessions 1-10)
 - Poor (1)
 - Fair (2)
 - Good (3)
 - Very good (4)
 - Excellent (5)
4. The presenter's ability to clearly communicate was (Sessions 1-10):
 - Poor (1)
 - Fair (2)
 - Good (3)
 - Very good (4)
 - Excellent (5)
5. Did you learn something new from the didactic? (Sessions 1-5, 7-10)
 - Yes (1)
 - No (2)
 - N/A (3)
6. How relevant was the didactic to your work? (Sessions 1-5, 7-10)
 - Irrelevant (1)
 - Partly Relevant (2)
 - Relevant (3)
 - N/A (4)
7. Did you learn or refresh something that will be useful in caring for your patients? (Sessions 1-10)
 - Yes (1)
 - No (2)
 - N/A (3)
8. Did you learn new strategies for educating people living with non-cancer persistent pain? (Session 1)
 - Yes (1)
 - Partially (2)

- No (3)
9. Have you become aware of educational resources to facilitate pain education for people living with persistent pain? (Session 1)
- Yes (1)
 - Partially (2)
 - No (3)
10. What did you like most about the session? (Sessions 1-10)
11. What would improve future sessions? (Sessions 1-5)
12. Any additional comments? (Sessions 1-6) or Ideas for future topics? Any additional comments? (Sessions 7-10)

New questions in Session 2

Did you learn something new from the case presentation? (Sessions 2-9)

- Yes (1)
- No (2)

How relevant was the case presentation to your work? (Sessions 2-9)

- Irrelevant (1)
- Partly relevant (2)
- Relevant (3)

New questions in Session 3

Did you learn something new about the role of spinal cord stimulation in back pain? (Session 3)

- Yes (1)
- Partially (2)
- No (3)

Did you learn something new about the conditions spinal cord stimulation might be suitable for? (Session 3)

- Yes (1)
- Partially (2)
- No (3)

Did you learn something new about the limitations and adverse effects of spinal cord stimulation? (Session 3)

- Yes (1)
- Partially (2)
- No (3)

New questions in Session 4

Would you consider presenting a case for discussion? (Session 4)

- Yes (1)
- No (2)
- Other (please specify) (3)
 - o open response

How could we support you to present a case for discussion? What are the barriers, if any? (Session 4)

- Open ended question

New questions in Session 5

No new questions

New questions in Session 6

Did tonight's session give you a greater understanding of the WorkSafe compensation system? (Session 6)

- Yes (1)
- No (2)
- Not Sure (3)

Did tonight's session give you a greater understanding of the TAC compensation system? (Session 6)

- Yes (1)
- No (2)
- Not Sure (3)

Would you like to have a greater understanding of any of the following TAC and WorkSafe related topics? (Tick all that apply) (Session 6)

- WorkSafe compensation system (1)
- TAC compensation system (2)
- Important timelines in the life of a claim (3)
- Position/policy on opioids, medical cannabis, new and emerging technologies (4)
- Clinical services that do and don't need approval prior to a client accessing them (5)
- New programs that are being trialled or launched for clients with specific needs (6)
- Workplace safety (7)
- Road safety (8)
- Other (please specify) (9)
 - o Open question

What topics would you like to see included in future ECHO Persistent Pain sessions? (Session 6)

- Open ended question

New questions in session 7

What other aspects of Pelvic Pain would you like covered/discussed in more detail at the next session on November 11? (Session 7)

- Open ended question

No new questions in sessions 8, 9 and 10

Participant outcome survey

SURVEY

This survey aims to understand the impact of Project ECHO (Persistent Pain) on participants and to understand how Project ECHO could be improved for Series 3.

The survey will take 5-10 minutes to complete.

For more information see attached information sheet.

1. Questions about you

a) What is your role in Project ECHO? Please tick one or more boxes.

- Primary care provider participating in Project ECHO
- Other type of health professional participating in Project ECHO (not primary care provider) (Please describe)
- Hub panel educator
- Guest speaker
- Facilitator
- WVPHN coordinator
- WorkSafe/TAC representative
- Other WVPH staff
- Other (Please describe)

b) What is your profession? Please tick one box.

- GP
- Nurse or Nurse Practitioner
- Exercise Physiologist
- Occupational Therapist
- Osteopath
- Pharmacist
- Physiotherapist
- Psychologist
- Social worker
- Sports physician
- Other (please describe)

c) How many years have you been in practice? Please tick one box.

- <2 years
- 2-5 years
- 6-10 years
- >10 years

d) What is the postcode (s) of your WORK location(s)? _____

2. Question about your attendance in Project ECHO series

a) Which ECHO session(s) did you attend? Please tick the boxes of the session(s) that you attended

| Didactic topic | | | Tick |
|----------------|--------------|--|------|
| 1 | 22 July | Pain Education | |
| 2 | 5 August | Chronic Lower Back Pain (Session 1) | |
| 3 | 19 August | Chronic Lower Back Pain (Session 2) | |
| 4 | 2 September | Sleep Management | |
| 5 | 16 September | Graded Exposure | |
| 6 | 14 October | Beyond the Injury – presented by TAC and WorkSafe Victoria | |
| 7 | 28 October | Pelvic Pain – Session One | |
| 8 | 11 November | Pelvic Pain – Session Two | |
| 9 | 25 November | Medical Cannabis | |
| 10 | 2 December | Graded Motor Imagery | |

3. Questions about the value of the Project ECHO program

a) Learning

Please tell us whether you agree or disagree with the following statements:

| | | Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree |
|------|---|-------------------|----------|----------------------------|-------|----------------|
| i. | Participation in Project ECHO has improved my knowledge about best practice chronic pain management | | | | | |
| ii. | Participation in Project ECHO has improved my knowledge about non-pharmacological strategies to manage chronic pain | | | | | |
| iii. | Participation in Project ECHO has helped me to understand gaps in my knowledge that I didn't recognise before | | | | | |

- iv. Please describe **ONE key learning that you have taken away from the Project ECHO session(s) related to best practice chronic pain management** and why you think it is important

b) Confidence and skills

Please tell us whether you agree or disagree with the following statements:

| | | Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree |
|------------|---|--------------------------|-----------------|-----------------------------------|--------------|-----------------------|
| i. | Participation in Project ECHO has improved my confidence to manage patients with chronic pain | | | | | |
| ii. | Participation in Project ECHO has improved my skills to manage patients with chronic pain | | | | | |

iii. Any comments or examples about how Project ECHO has impacted your confidence and/or skills?

c) Performance

Please tell us whether you agree or disagree with the following statements:

| | | Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree |
|------------|---|--------------------------|-----------------|-----------------------------------|--------------|-----------------------|
| i. | Participation in Project ECHO has influenced how I manage patients with chronic pain | | | | | |
| ii. | Participation in Project ECHO has improved the quality of care of my patients with chronic pain | | | | | |

iii. Please describe ONE example of how participating in Project ECHO has influenced your practice and any impacts on your patients)

For GPs only

Please tell us whether you agree or disagree with the following statements:

| | | Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree |
|------------|---|--------------------------|-----------------|-----------------------------------|--------------|-----------------------|
| i. | Participation in Project ECHO has increased my referrals to allied health practitioners for chronic pain management | | | | | |
| ii. | Participation in Project ECHO has decreased my opioid prescribing (either amount or frequency) | | | | | |

d) Project ECHO community of practice

Please tell us whether you agree or disagree with the following statements:

| | | Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree |
|-------------|---|--------------------------|-----------------|-----------------------------------|--------------|-----------------------|
| i. | I value participating in a community of practice | | | | | |
| ii. | Participation in Project ECHO has provided professional support | | | | | |
| iii. | Participation in Project ECHO has reduced my professional isolation | | | | | |

e) Any other comments? _____

Thank you for your time

Online focus group schedule

FOCUS GROUP SCHEDULE

My name is XXX. Thank you for participating in this focus group discussion about Project ECHO.

I would like to record the session. All quotes will be deidentified in the report. Is everyone happy for me to record the session.

Please write your first name and profession in the chat. Please also feel free to write any comments in the chat at any time. We will look at the chat when writing up the results of this discussion.

The purpose of this focus group is to understand the benefits of the Project ECHO model and the impact of the Project ECHO on your practice

Questions

- i. Firstly, what do you like about the Project ECHO model compared to other models of education and training such as webinars, face to face workshops?**

Prompts, community of practice, sharing, online/accessible

- ii. Secondly, has participation in Project ECHO influenced your confidence or how you manage chronic pain patients?**

Please provide an example

Prompt, what do you think are the benefits on your patients of your participation in Project ECHO?

- iii. Lastly, do you have any suggestions for improvements for Project ECHO Series 3?**

Participant Information sheet

Who is conducting the evaluation?

The Menzies Centre for Health Policy at the University of Sydney has been commissioned by Western Victoria Primary Health Network to conduct an evaluation of Project ECHO (Persistent Pain) Pilot, Series 2.

What is the purpose of the evaluation?

The evaluation aims to understand what is working well and not working well about Series 2 of the Project ECHO (Persistent Pain) program and suggestions for improvements. It also aims to understand the benefits for participants in the program. This information will help to inform Series 3 of Project ECHO (Persistent Pain).

What will the evaluation involve for me?

We will ask you to participate in a **short online survey** and an **online focus group**.

1. Short online survey

- You will be sent a link to the online survey **during the last session of Series 2 and in the follow-up email**. The survey will take 5 to 10 minutes to complete. All participants who have attended at least one ECHO session will be asked to complete the online survey.

2. Online discussion during the final session of Series 2 after the didactic presentation on 2nd December

- Dr Simone De Morgan will facilitate an online discussion about the perceived benefits and value of Series 2, and suggestions for improvements. Participants will also be encouraged to use the 'chat' function for comments. The focus group will take approximately 30 minutes.

Questions for the discussion

Firstly, what do you like about the Project ECHO model compared to other models of education and training such as webinars, face to face workshops?

Prompts, community of practice, sharing, online/accessible

Secondly, has participation in Project ECHO influenced your confidence or how you manage chronic pain patients?

Please provide an example

Prompt, what do you think are the benefits on your patients of your participation in Project ECHO?

Lastly, do you have any suggestions for improvements for Project ECHO Series 3?

What if I don't want to or I am unable to participate?

Your involvement in the evaluation is voluntary. It is up to you whether or not you participate.

What if I want to withdraw later?

You can also withdraw from the evaluation at any time and the information you have provided will only be used in the data analysis with your permission.

Are there any risks or costs?

There are no risks or costs associated with participating in this evaluation. There will be no payment to participants for involvement in the evaluation.

How will confidentiality and privacy be protected?

Online survey

The survey will be uploaded onto a secure survey platform that complies with the University of Sydney data management and security processes. Names of participants will not be recorded.

Online focus group discussion

Participants will be asked for their permission to audio-record the focus group. Audio files of the interviews will be transcribed by an external agency, where a confidentiality agreement will be enacted. Names of focus group participants will not be transcribed. Information will be published in a de-identified form. The names of participants will not be published.

Storage and access

Audio-recordings will be deleted from recording devices immediately after they have been downloaded onto a secure computer server with password protection at the University of Sydney. Electronic data from the survey, audio files and transcripts will be stored on a secure computer server with password protection at the University of Sydney. Only the research team will have access to the data from the survey, audio files and transcripts. Information from the project will be deleted 5 years after the project is completed. Electronic files will be securely disposed of following University procedures.

What happens with the results?

The results of the evaluation will also be available in a report provided to Western Victoria Primary Health Network. The findings of the evaluation may also be presented at a conference.

What if I would like further information about the evaluation?

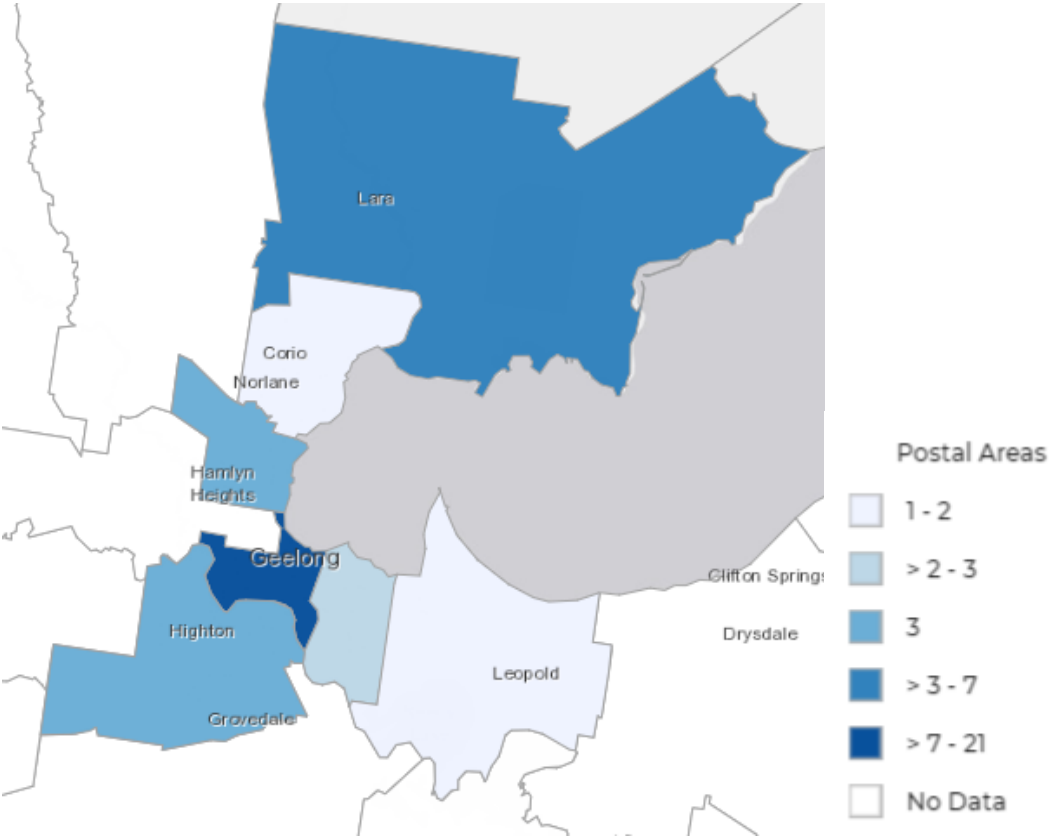
If you would like more information please contact Dr Simone De Morgan, University of Sydney, simone.demorgan@sydney.edu.au.

What if I have a complaint or any concerns about the evaluation?

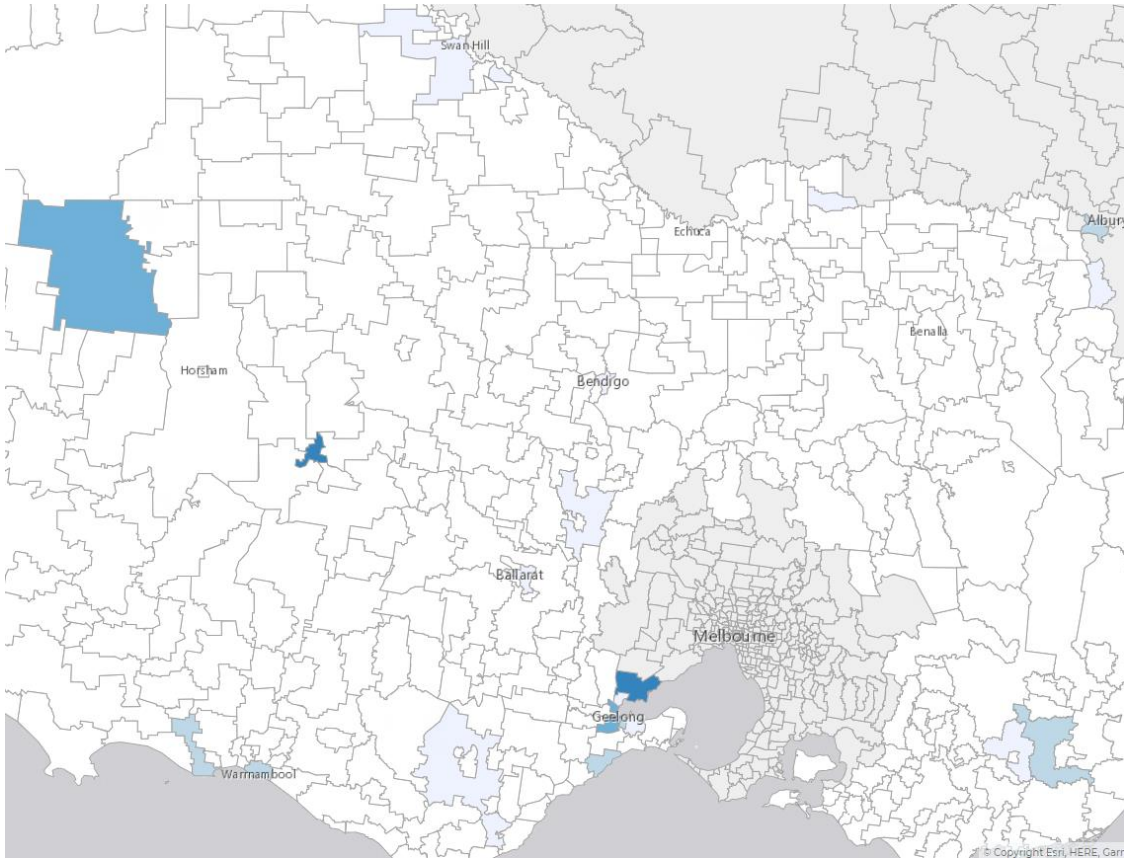
If you are concerned about how this evaluation is being conducted, please contact Natalie Love at Western Victoria Primary Health Network, natalie.love@westvicphn.com.au

Thank you for taking the time to consider participating in this evaluation

D.4 Appendix 4: Location maps of participants



City of Greater Geelong area postcodes of attending participant workplaces (map generated using PHIDU geography atlas for postal areas <https://hub.instantatlas.com/phidu/index.html?view=instructions>)



Victorian postcodes (excl. Melbourne) of attending participant workplaces (map generated using PHIDU geography atlas for postal areas <https://hub.instantatlas.com/phidu/index.html?view=instructions>)



Melbourne postcodes of attending participant workplaces (map generated using PHIDU geography atlas for postal areas <https://hub.instantatlas.com/phidu/index.html?view=instructions>)

D.5 Appendix 5: Suggested changes to enrolment and satisfactions surveys

The following are suggested changes for the satisfaction survey for Series 3:

- Separate participants from observers in the feedback surveys. This could be done by adding a question with these categories for participants to select who they are. Alternatively, only send the survey link to participants and clearly state at the top of the survey that this survey is for participants to complete.
- Insert 'rules' in each survey to only allow for one response and to make all questions mandatory (other than additional comments which will be open-ended questions)
- Consider collecting suburbs in addition to postcodes as this may be more useful and allows participants within and external to the PHN boundary to be established (postcodes cover multiple suburbs and do not align with shire boundaries)
- Keep as many questions the same as possible for all enrolments and sessions (e.g. try not to change or add questions)
- Keep responses as either a *yes/no* or use a Likert scale (at least 4 options). For example, instead of *yes/no/partially* or *yes/no/unsure* either use *yes/no*. A better option would be to use statements like 'this session improved my knowledge on 'x'' and response options *strongly agree/agree/neither agree or disagree/disagree/strongly disagree*.
- It may also be helpful to include a question on 'how did you find out about Project ECHO (Persistent Pain)?' and provide options as per the communication strategy to promote the program. This will help to evaluate the communication strategy.
- Include in the enrolment survey a question about years in practice to allow comparison between the sample who enrol in the program and the sample completing the satisfaction surveys. May also include a question about whether working in a solo practice or a team of providers (may influence the level of professional support and isolation prior to participation in the program)
- Incorporate questions about impact (see Participant outcome survey) into the satisfaction survey if intending to have one participant feedback survey only.

D.6 Appendix 6: Engaging and supporting primary care providers to deliver case presentations

Suggestions from the QLD Superhub for greater engagement and support of primary care providers to deliver case presentations include:

- Frame case presentations as an opportunity to gain advice from multiple professional perspectives, for the best possible patient care and health outcomes and as a key component of the Project ECHO model
- Create a safe and welcome space and reassure case presenters that they do not have to know the answers
- Send a summary of all ECHO session topics for the series to participants prior to the series and encourage participants to sign-up for case presentations in advance. However, also encourage participants to volunteer to present a case at any time and or impromptu in the discussion if time permits
- Develop a guidance document for presenters and revise template for case presentations. The facilitator can go through the case presentation template in the first ECHO session
- Consider broadening case presentations so they do not need to be aligned to specific topics
- Create a more personal environment by encouraging people to turn on their cameras and informing people of the difference between the ECHO model and a series of webinars
- Consider incentives for case presentations e.g. MBS billing, CPD points

D.7 A rapid review of the Project ECHO peer-reviewed literature

A rapid review of the Project ECHO peer-reviewed literature was conducted as part of this evaluation to inform the Evaluation Framework for Project ECHO (Persistent Pain), the Program Logic Project ECHO (Persistent Pain), considerations for implementing Project ECHO programs in other health contexts, and recommendations for high quality Project ECHO programs.

The purpose of the rapid review was to identify evidence related to:

1. Implementation and evaluation frameworks for Project ECHO programs
2. The impact of Project ECHO programs (including systematic reviews only)
3. Enablers to implementation, participant satisfaction and impact of Project ECHO programs related to pain management (including systematic reviews, experimental/quasi-experimental studies, and observational studies such as mixed method and qualitative studies)

The following search strategy was used in the rapid review: a) Medline database search; b) Google Scholar search; c) hand searching of references from relevant papers; and d) key author searches

The rapid review included peer-reviewed publications from Australia and internationally (USA, Canada, UK and NZ) from 2010 to 2020 in the English language.

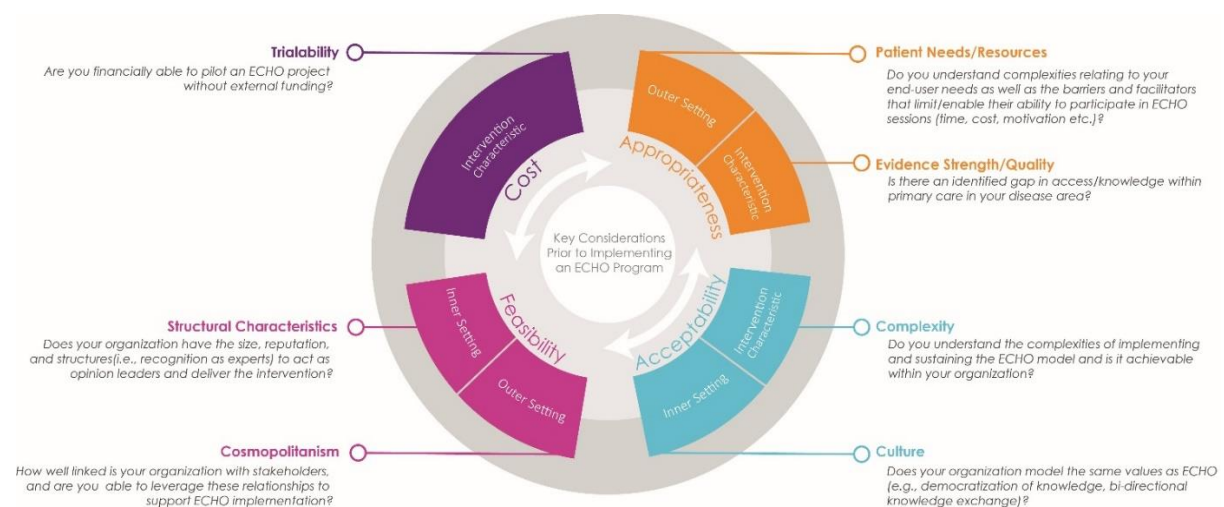
The rapid review did not aim to systematically search for, or synthesise, all the relevant evidence related to the key focus areas.

Table 10 outlines the peer-reviewed publications identified in this rapid review. No Australian study was identified.

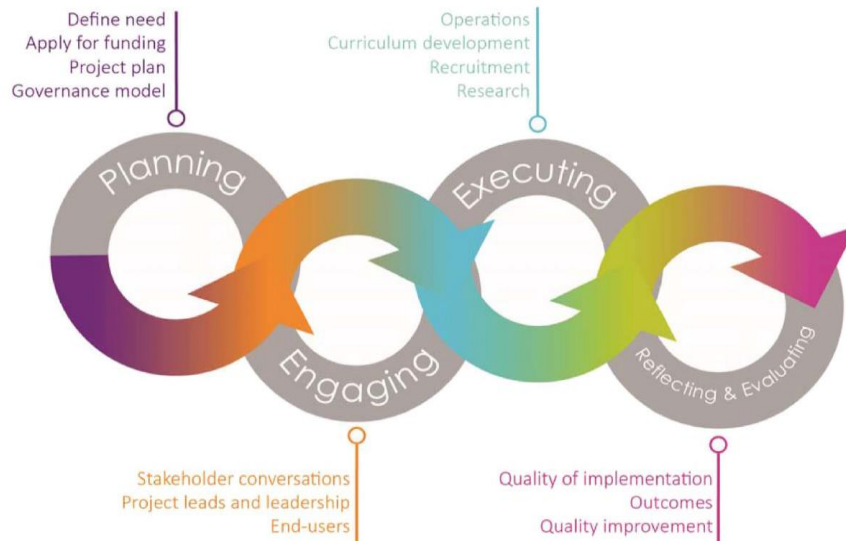
Results

1. Implementation and evaluation frameworks of Project ECHO programs

Only one theoretical framework was identified related to implementation of Project ECHO programs. Serhal and colleagues, in a recent US implementation study of Project ECHO,¹ used the validated implemented framework of **Damschroder's (2009) Consolidated Framework for Implementation Research (CFIR)** to create a set of questions to assess organisational readiness and suitability of the ECHO model and to develop a checklist to support successful implementation.



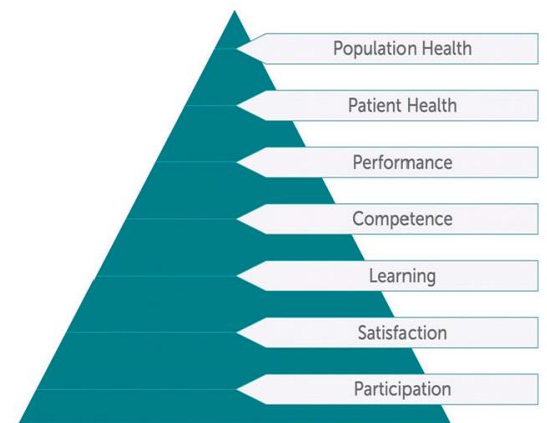
An approach to organisational readiness for Project ECHO programs adapted from the Consolidated Framework for Implementation Research (CFIR).



Implementation process

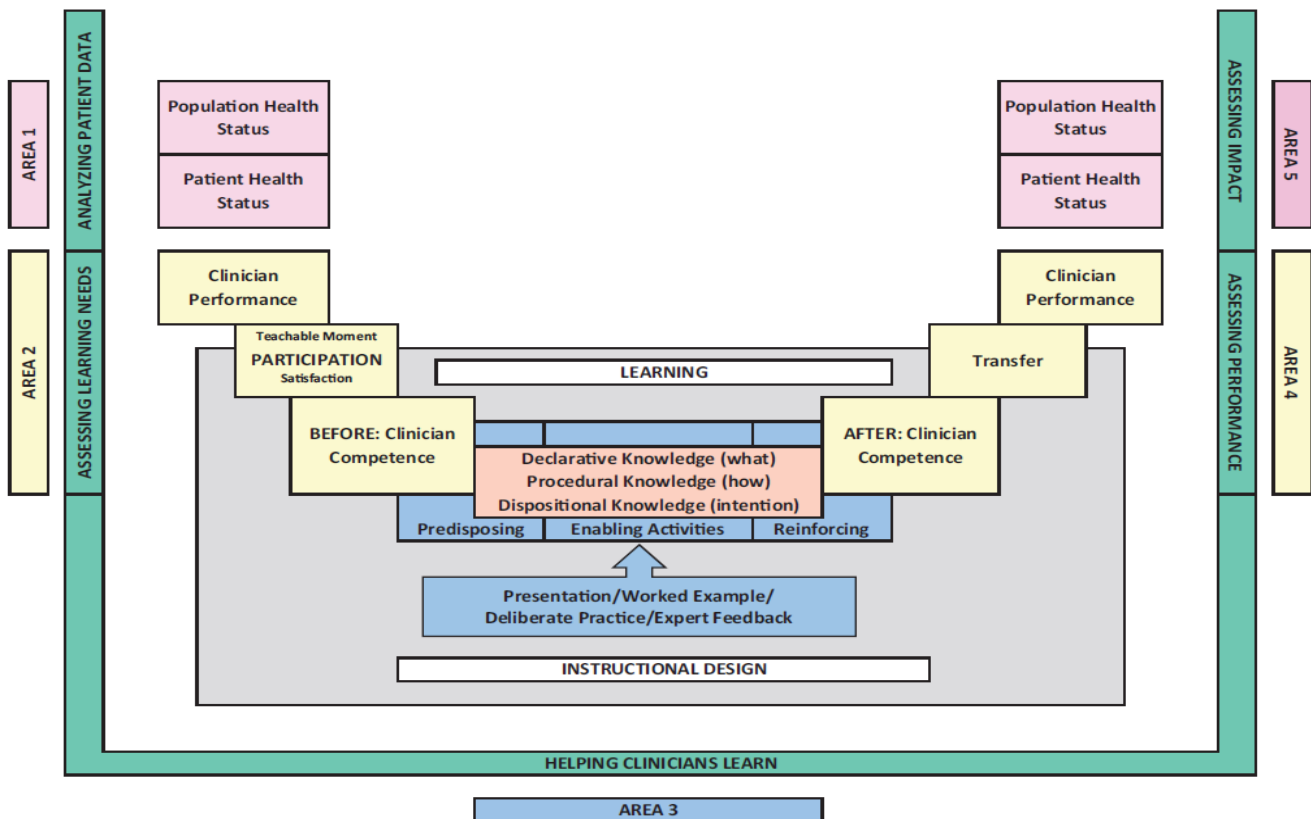
The most commonly used evaluation framework for assessing the impact of Project ECHO programs in the literature is the **Moore’s Framework - An Outcome Framework for Planning and Assessing Continuing Medical Education (CME) Activities**.^{2,3} The original outcomes framework includes seven outcome levels: participation; satisfaction; learning; competence; performance; patient health and community (population health). These levels approximate stages of clinician learning and application of learning in the clinical setting with expected impact on patient health.²

| CME framework | Level | Description |
|------------------|-------|--|
| Participation | 1 | The number of health care professionals who participated in the CME activity or program |
| Satisfaction | 2 | The degree to which the expectations of the participants about the setting and delivery of the CME activity or program were met |
| Learning | 3 | The degree to which participants could demonstrate that they know what the CME activity or program intended them to know (includes both declarative and procedural knowledge) |
| Competence | 4 | The degree to which participants could show in an educational setting how to do what the CME activity or program intended them to be able to do (includes perceived self-efficacy/self-confidence) |
| Performance | 5 | The degree to which participants could do what the CME activity or program intended them to be able to do in their practices |
| Patient health | 6 | The degree to which the health status of patients improved due to changes in the practice behavior of participants |
| Community health | 7 | The degree to which the health status of a community of patients changed due to changes in the practice behavior of participants |



Original Moore’s seven outcome levels (2009)

The updated conceptual framework incorporates an expanded approach to instructional design to be used in planning learning activities and assessing learning in continuing professional development.²



Updated Moore's Conceptual framework for planning learning activities and assessing learning (2018)

2. Impact of Project ECHO programs (systematic reviews)

Two systematic review were identified that assessed the impact of Project ECHO on provider-related and patient-related outcomes.^{4,5}

Zhou et al (2016)⁴ identified 39 studies describing Project ECHO's involvement in addressing 17 medical conditions. The review found that evaluations of Project ECHO programs generally focus on outcomes from Levels 1 to 4 of Moore's framework with the majority of studies focusing on provider outcomes such as provider satisfaction, changes in provider knowledge, changes in provider confidence or self-efficacy, and changes in self-reported provider behaviour or provider behaviour change intent. There was a limited number of studies that focus on competency, performance or actual provider behaviour change, patient health, or cost impacts/cost-effectiveness.

Key findings:

- Participants are highly satisfied with the content and format of Project ECHO and participation in Project ECHO improves knowledge (perceived/actual) and confidence of participants.
- There is some evidence that Project ECHO changes provider practice, for example, frequency of opioid prescriptions among patients managed for chronic pain and frequency of initiating treatment for Hepatitis C Virus (HCV) and leads to better patient health, for example, sustained viral response for HCV and decreased average blood glucose levels (haemoglobin A1c) for diabetes.
- Project ECHO has been shown in one study to be cost-effective and another study to reduce patient costs due to decreased travel to specialists.
- Although the evidence is modest, the impact of Project ECHO on provider practice, patient health and cost has shown positive effects.

McBain et al (2019)⁵ identified 52 peer-reviewed articles evaluating Project ECHO programs. Forty-three studies reported provider-related outcomes and fifteen studies reported patient-related outcomes.

Key findings:

- Studies on provider-related outcomes suggest favourable results across three domains: satisfaction, increased knowledge, and increased clinical confidence. However, the strength of the evidence (SOE) was low, relying primarily on self-reports and surveys with low response rates. One randomised trial has been conducted.
- For patient-related outcomes, 11 of 15 studies incorporated a comparison group; none involved randomisation. Four studies reported care outcomes, while 11 reported changes in care processes.
- Evidence suggested effectiveness at improving outcomes for patients with hepatitis C, chronic pain, dementia, and type 2 diabetes.
- Overall, the authors conclude that evidence to support provider practice change (patient care) and patient health outcomes is generally low-quality, retrospective, non-experimental, and subject to social desirability bias and low survey response rates.

Challenges to conducting high quality evaluations to assess impact

High quality evaluations of the impact of Project ECHO programs on actual provider practice and patient health involve study designs such as experimental and quasi-experimental designs (e.g. stepped wedge experimental design) or pre-post design with a control group or prospective cohort design. However, there are barriers to conducting high quality evaluations of Project ECHO programs to assess these impacts, including obtaining sufficient resources to conduct the evaluation in addition to implementing the program and the time to plan and conduct the evaluation.⁶

3. Project ECHO programs related to pain management

Common Project ECHO programs related to pain management include *Chronic Pain, Paediatric Pain, Palliative Pain, Opioid Stewardship, Medication-Assisted Treatment, Community Health Worker Training in Opioid Management, and Substance Use in the Perinatal Period*.⁶

Project ECHO programs related to pain management have reported high level of participant satisfaction, improved perceived/actual knowledge and skills, improved confidence, improved practice change intention, improved job satisfaction, improved perceived patient quality of care, reduced professional isolation and improved perceived communication with specialists (see **Table 10**).

Participation in Project ECHO programs related to pain management have also changed provider practice and improved patient care. One high quality study⁷ found that providers who attended ECHO were more likely to use formal assessment tools and opioid agreements and refer to behavioural health and physical therapy compared with control providers. Opioid prescribing also decreased significantly more among providers in the intervention compared with those in the control group. Another high quality study⁸ found that providers who participated in ECHO Pain had greater percent declines than the comparison group in (a) annual opioid prescriptions per patient (b) average morphine milligram equivalents (MME) prescribed per patient/year (c) days of co-prescribed opioid and benzodiazepine per opioid user per year and (d) the number of opioid users.

Enablers to implementation reported in the studies identified in this rapid review included: relevant content, engaging discussions, workplace support, easy adoption of technology, Continuing Professional Development (CPD) points, scheduling training during lunch breaks and other times when participants were more likely to be available, supportive administrative and technical staff, developing guidelines and tool kits about Project ECHO, regular surveys to reflect on and inform program adjustment, greater support and incentives for case presentations and short didactics.

Implementation challenges reported in the studies identified in this rapid review included: lack of time for providers to participate in Project ECHO sessions, promoting the program and engaging providers, lack of provider confidence or insufficient time to develop case presentations and technology barriers.

For more information about the individual studies identified in this review see **Table 10**.

Table 10: Peer-reviewed publications related to Project ECHO programs for chronic pain management

| Year, author, country, title | Name of Project ECHO | Study objectives | Type of study, target group | Implementation outcomes ¹ | Participant, patient, and health system outcomes ² |
|--|---|--|---|--|---|
| 2020 Ball et al ⁹ USA <i>A Qualitative Evaluation of the Pain Management VA-ECHO Program Using the RE-AIM Framework: The Participant's Perspective</i> | 'Veterans' health administration (VA)-ECHO' | Qualitative evaluation of the VA-ECHO program using the RE-AIM framework (reach, effectiveness, adoption, implementation, maintenance) but excluding the reach component | Observation – post Participants – 26 out of 527 contacted providers were interviewed <i>Target:</i> Veteran affairs | <ul style="list-style-type: none"> • Time was reported as a barrier to participation • Support from supervisors and institutions was reported to mitigate this barrier e.g. blocking schedules during ECHO sessions • Some participants reported that content focused too heavily on opioid prescribing practices • Participation increased by CPD points and/or scheduling training during lunch breaks and other times when participants were more likely to be available • Sustainability was a potential challenge - only some of the participants stayed connected to the network after the one-year program | <ul style="list-style-type: none"> • Improved perceived knowledge and skills in pain management • Improved sense of empowerment and confidence • Perceived better communication with specialists, and perceived better and quicker referrals • Improved job satisfaction • Greater professional networks • Perceived reductions in opioid prescribing |
| 2020 Damian et al ¹⁰ USA <i>A mixed methods evaluation of the feasibility, acceptability, and impact of a pilot project ECHO for community health workers (CHWs)</i> | 'CHW-Project ECHO' | Mixed methods evaluation of community healthcare worker capacity to address social determinants of health using Project ECHO – assessing self-efficacy, behaviour change intent, knowledge (not specifically pain related) | Observation – pre-post <i>Target:</i> Community healthcare workers | <ul style="list-style-type: none"> • Participants – 120 providers enrolled in ECHO, with 119 completing the pre-survey, 50 the mid-survey, and 51 the post-survey • Attendance was reasonably high with over three-quarters attending at least half the sessions • Over 90% satisfied with all components of the program (e.g. didactics, engagement with other participants, topics, duration) | <ul style="list-style-type: none"> • Statistically significant improvement in self-efficacy to perform job and address social determinants of health • Perceived value related to availability of training and resources, learning from other participants' caseloads, improved perceived team integration, and improved perceived shared decision-making with patients • Improvement in knowledge: average 10% increase in participant knowledge • 3/5 endorsed changing their behaviour/ practice following participation (behaviour change intent) |
| 2020 Eaton et al ¹¹ USA <i>Telementoring for improving primary care provider knowledge and competence in managing chronic</i> | 'TelePain' | Quantitative evaluation of knowledge and perceived confidence in pain management | Experimental – RCT <i>Target:</i> Primary care providers | <ul style="list-style-type: none"> • Participants – 23 providers attended ECHO sessions (control group n=18) • 89% attended at least one session (on average participants attended 12.5 sessions across the year) • 78% of intervention participants presented at least one case study. | <ul style="list-style-type: none"> • No significant change in knowledge scores or confidence in treating chronic pain between intervention and control group. Authors suggest this may be due to lower average attendances (12 per year) compared to other studies (37 per year), or because participants may reflect on what they don't know rather than what they have now learnt |

| Year, author, country, title | Name of Project ECHO | Study objectives | Type of study, target group | Implementation outcomes ¹ | Participant, patient, and health system outcomes ² |
|---|---|---|---|--|--|
| <i>pain: A randomised controlled trial</i> | | | | | |
| 2020 Flynn et al ¹² USA <i>Pain Management Telementoring, Long-term Opioid Prescribing, and Patient-Reported Outcomes</i> | 'TelePain' | Impact of telementoring participation on within-patient long-term opioid therapy (LOT) morphine equivalent daily dose (MEDD), and proportion of patients who discontinued LOT | Experimental – non-randomised control trial <i>Target:</i> Primary care providers & their patients | <ul style="list-style-type: none"> Participants – 25 providers (12 intervention & 13 control group) and 396 patients (238 intervention & 158 control). | <ul style="list-style-type: none"> No significant differences in provider age, discipline, years of practice, number of patients on LOT, baseline LOT MEDD prescriptions, or months of observation between control and intervention group LOT dosages decreased over time for both intervention and control group with no significant difference Proportion of patients who discontinued LOT during the study was higher in the intervention group No significant change was found for MEDD between intervention and control group, however, for level of participation there were higher reductions in actively participating intervention groups compared to low participating intervention groups |
| 2019 McBain et al ⁵ USA <i>Impact of Project ECHO Models of Medical Tele-Education: a Systematic Review</i> | 'Project ECHO'- Systematic Review | Synthesis of evidence of impact of Project ECHO programs on provider-related and patient-related outcomes | Systematic review <i>Target:</i> Primary care providers | <ul style="list-style-type: none"> 52 peer-reviewed articles. Forty-three reported provider-related outcomes; 15 reported patient-related outcomes. Studies on provider-related outcomes suggested favourable results across three domains: satisfaction, increased knowledge, and increased clinical confidence. However, Strength of Evidence (SOE) was low, relying primarily on self-reports and surveys with low response rates. One randomised trial has been conducted. | <ul style="list-style-type: none"> For patient-related outcomes, 11 of 15 studies incorporated a comparison group; none involved randomisation. Four studies reported care outcomes, while 11 reported changes in care processes. Evidence suggested effectiveness at improving outcomes for patients with hepatitis C, chronic pain, dementia, and type 2 diabetes. Overall, the authors conclude that evidence to support provider practice change and patient outcomes is generally low-quality, retrospective, non-experimental, and subject to social desirability bias and low survey response rates. |
| 2019 Furlan et al ¹³ Canada <i>Evaluation of an innovative tele-education intervention in chronic pain management for</i> | 'ECHO Ontario Chronic Pain/ Opioid Stewardship' | Assess the impact of ECHO on providers' self-efficacy, knowledge and satisfaction/ impact on clinical practice | Observation – Pre-post <i>Target:</i> Primary care providers | <ul style="list-style-type: none"> Participation – 296 providers attended ECHO, 170 completed the pre-survey and 119 completed the post-survey The majority of participants were satisfied with ECHO overall (98%) and would recommend ECHO (90%) to colleagues | <ul style="list-style-type: none"> Significant increase in self-efficacy and knowledge for all participants Prescribers (physician, physician assistant, nurse practitioner) reported significantly greater self-efficacy and knowledge on average compared to non-prescriber group (pharmacists, registered nurse, allied health professional) |

| Year, author, country, title | Name of Project ECHO | Study objectives | Type of study, target group | Implementation outcomes ¹ | Participant, patient, and health system outcomes ² |
|--|----------------------|--|---|---|---|
| <i>primary care clinicians practicing in underserved areas</i> | | | | | <ul style="list-style-type: none"> No significant difference in self-efficacy between case-presenters and non-case presenters, and no significant difference in knowledge There was no relationship for the number of sessions attended and self-efficacy and similarly for knowledge The majority of participants reported improved job satisfaction (88%), quality of their care was perceived to improve (81%), reduced their professional isolation reduced (71%) At least two-thirds of participants reported that ECHO participation: supported best practice information dissemination (87%), improved quality and safety of patient care (83%), that collaboration benefited the clinic (71%), that ECHO participation improved access to chronic pain treatment for patients (70%), and that ECHO participation reduced variations in care (67%) |
| 2019 Katzman et al ⁸ USA <i>Army and Navy ECHO Pain telementoring improves clinician opioid prescribing for military patients: an observational cohort study</i> | 'ECHO PAIN' | Determine whether ECHO significantly decreased opioid prescribing. Secondary outcomes measure morphine milligram equivalents (MME) and co-prescribing opioid and benzodiazepines | Observation – cohort <i>Target: Veterans affairs</i> | <ul style="list-style-type: none"> Participation – 99 military health clinics with primary care providers who voluntarily participated in ECHO were compared to 1283 clinics that did not participate in ECHO. There were 53,000 patients treated by ECHO participants | <ul style="list-style-type: none"> PCCs participating in ECHO Pain had greater percent declines than the comparison group in (a) annual opioid prescriptions per patient (b) average MME prescribed per patient/year (c) days of co-prescribed opioid and benzodiazepine per opioid user per year and (d) the number of opioid users |
| 2019 Shimasaki et al ¹⁴ USA <i>Strengthening the Health Workforce through the ECHO Stages of</i> | 'ECHO Colorado' | Investigate barriers and enabler to participant retention, engagement, value and utility | Observation study – post <i>Target: Primary care providers</i> | <ul style="list-style-type: none"> Participation – 580 primary care providers registered for the ECHO program with 137 (23%) not attending any sessions Interviews were conducted with non, low, medium and high attenders Participant enrolment and engagement was found to be related to relevant and practical curriculum | |

| Year, author, country, title | Name of Project ECHO | Study objectives | Type of study, target group | Implementation outcomes ¹ | Participant, patient, and health system outcomes ² |
|--|-----------------------------|---|---|--|---|
| <i>Participation: Participants' Perspectives on Key Facilitators and Barriers</i> | | of ECHO experience | | <p>content, strong supportive relationships between 'hub' and 'spoke', innovative learning approaches</p> <ul style="list-style-type: none"> • Key enablers were identified e.g. relevant content, engaging discussions, workplace support, easy adoption of technology. The presence of more factors was associated with greater engagement and utilisation • Participants suggested recommendations for curriculum relevance (e.g. improve program staff understanding of practitioner job functions, share resources), relationships (e.g. more networking opportunity, validate participant experiences and struggles) and format (e.g. limit participants per screen and per session, more discussion and skilled facilitation) • Participation was perceived as a major time commitment. The authors reported that organisational support and encouragement of participation is needed to improve retention | |
| 2019 Thies et al ¹⁵ USA <i>Project ECHO Chronic Pain: A Qualitative Analysis of Recommendations by Expert Faculty and the Process of Knowledge Translation</i> | 'Project ECHO chronic pain' | Understand how expert faculty translate knowledge and assess implementation of specialist recommendations provided during ECHO sessions | Observation study – post <i>Target:</i> Primary care providers | <ul style="list-style-type: none"> • Participation – 197 providers from 82 practices in 14 states attended Project ECHO chronic pain • Thematic analysis of case presentation recommendations from 25 randomly sampled cases was undertaken • Number of recommendations per case ranged from 12-37 (average 16.24) • Psychosocial issues were addressed in 40% of recommendations • Recommendations were categorised as: (1) assessment/evaluation of pain (e.g. physical examination, history, comorbidities), (2) including and excluding nonpharmacy treatment options (e.g. pros and cons of treatment options – pain clinic, surgery, combination treatment), (3) pharmacological treatment options (e.g. weaning from opioids, anticonvulsant medications, sleep medications) and (4) patient engagement and education (e.g. explaining medications, education materials, self-care). | |

| Year, author, country, title | Name of Project ECHO | Study objectives | Type of study, target group | Implementation outcomes ¹ | Participant, patient, and health system outcomes ² |
|--|--|--|--|---|---|
| 2018 Ball et al ¹⁶ USA <i>SCAN-ECHO for Pain Management: Implementing a Regional Telementoring Training for Primary Care Providers</i> | 'Specialty care access network (SCAN)-ECHO' | Mixed methods pilot evaluation of effectiveness in improving knowledge and confidence in pain management at Cleveland Veterans Affairs Medical Centre. | Observation –pre-post <i>Target: Veteran affairs</i> | <ul style="list-style-type: none"> Participants – 25/82 providers completed pre-post surveys Enablers identified included: <ul style="list-style-type: none"> Supported curriculum format – repeated exposure to topics, achievable goals, ability to discuss and consult Supportive administrative and technical staff needed for successful facilitation Time was a barrier to participation | <ul style="list-style-type: none"> Statistically significant increase in confidence ratings and knowledge between pre and post-training questionnaires Improved communication between speciality and primary care providers Reported increased workload but also improved job satisfaction Participants reported their patients were receiving better care – responding well to treatment recommendations |
| 2018 Carlin et al ¹⁷ Canada <i>Project ECHO Telementoring Intervention for Managing Chronic Pain in Primary Care: Insights from a Qualitative Study</i> | 'Project ECHO Ontario Chronic Pain/Opioid Stewardship' | Report on participant experiences and assessment of Project ECHO. | Observation – pre-post <i>Target: Family physician/ GP</i> | <ul style="list-style-type: none"> Participants – 37 providers enrolled. Reasons for participation – slow referrals, lack of alternative care pathways e.g. physio, opioid prescribing Barriers to implementation included internet connection, lack of time (e.g. if undertaking training on the weekends) | <ul style="list-style-type: none"> Improved knowledge Improved confidence and able to better support complex patients Reduced professional isolation Participants reported improved patient management throughout the practice not just for the cases presented Participants reported 'knowledge diffusion' to other clinicians and other clinics not participating, and directly to patients |
| 2018 Serhal et al ¹ Canada <i>Adapting the Consolidated Framework for Implementation Research to Create Organizational Readiness and Implementation Tools for Project ECHO</i> | "ECHO Ontario Mental Health (ECHO-ONMH)" | Assess implementation readiness for ECHO and create implementation guidelines | Implementation framework development <i>Target: Health networks looking to implement ECHO</i> | <ul style="list-style-type: none"> Developed 20 key considerations (under appropriateness, acceptability, feasibility, cost) for developing an ECHO e.g. are you financially able to pilot an ECHO project without external grants, or how well linked is your organisation with stakeholders and can you leverage relationships? Developed a process checklist for implementation with steps for planning, stakeholder engagement, executions (operational, curriculum development, recruitment, evaluation), and reflecting and evaluating. | |
| 2018 Stevenson et al ¹⁸ USA <i>Evaluation of a national telemedicine</i> | 'SCAN-ECHO' | Assess implementation of SCAN-ECHO and provide guidance to | Observation – post <i>Target: Veterans affairs</i> | <ul style="list-style-type: none"> Participation – 55 participants were interviewed from a stratified sample of 9 sites (out of 37) to assess varying levels of implementation For SCAN-ECHO Pain, 11 sessions were held at low implementation sites, 48 sessions at medium and 74 at high implementation sites | <ul style="list-style-type: none"> ECHO was reported to improve efficiency of specialty referral with referrals for low implementation sites (69%) compared to medium (74%) and high (85%) implementation sites |

| Year, author, country, title | Name of Project ECHO | Study objectives | Type of study, target group | Implementation outcomes ¹ | Participant, patient, and health system outcomes ² |
|--|---|---|--|---|--|
| <i>initiative in the Veterans Health Administration: Factors associated with successful implementation</i> | | support future roll-out | | <ul style="list-style-type: none"> Degree of implementation was measured as number of sessions as a percentage of outpatient visits Low implementation sites reported a lack of understanding of the ECHO program design, lower perceived compatibility with existing workflow systems, and irregular or no surveys to reflect on and inform program adjustment, compared to high implementation sites Recommendations to improve design quality were developing guidelines, tool kits and other educational material about Project ECHO Recommendations to improve compatibility were adjusting team composition such as more nurse practitioners in trainings Recommendations for reflecting and evaluating were quality monitoring or audit feedback strategies Complexity of the ECHO model was a challenge for all sites (rated negative) Knowledge and beliefs about the intervention were positive across all sites | |
| Anderson et al ⁷ 2017 USA <i>Improving Pain Care with Project ECHO in Community Health Centers</i> | Project ECHO Pain | Evaluate the impact of Project ECHO Pain on knowledge and quality of care | Quasi-experimental, pre-post intervention with comparison group <i>Target: Primary care providers</i> | <ul style="list-style-type: none"> Compared with control, primary care providers in the intervention had a significantly greater increase in pain-related knowledge and self-efficacy | <ul style="list-style-type: none"> Providers who attended ECHO were more likely to use formal assessment tools and opioid agreements and refer to behavioural health and physical therapy compared with control providers Opioid prescribing decreased significantly more among providers in the intervention compared with those in the control group |
| 2017 Arora et al ¹⁹ USA <i>Project ECHO: A Telementoring Network Model for Continuing Professional Development</i> | 'Project ECHO (extension of community healthcare outcomes)' | Assess ECHO model compliance with best practice recommendations for continuing professional development (CPD) | Narrative <i>Target: Health professional education bodies and Project ECHO implementers</i> | <ul style="list-style-type: none"> ECHO model compliance with best practice recommendations for CPD, including the 7 levels of Moore's framework (participation, satisfaction, learning, competence, performance, patient, and community health) ECHO model compliance with national report recommendations – deliberative practice, role-modelling, feedback, personalised learning, relevance to practice, interprofessional education | |
| 2017 Flynn et al ²⁰ USA | 'TelePain' | Report on challenges and lessons learnt | Experimental - Wait-list cluster control trial | <ul style="list-style-type: none"> Participants – 24 primary care providers and 120 patients | |

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| <i>TelePain: Primary care chronic pain management through weekly didactic and case-based telementoring</i> | | from early implementation of TelePain | <i>Target: Veterans affairs</i> | <ul style="list-style-type: none"> • The multisite research team held weekly telephone meetings to troubleshoot implementation barriers • Intervention group was selected from pain champions and therefore interested in pain management and control group required more outreach for participation • Implementation challenges included recruitment, case presentations and technology barriers • Recruitment challenges were overcome by increased outreach and networking with military health providers. Primary care providers received financial incentives for each participating patient and intervention group also received CPD points. Incentives were also provided for patients completing baseline and completion surveys • There was an initial reluctance to present cases due to participants lacking in confidence or not having enough time to prepare a case - this was overcome through support, building rapport and establishing patient enrolment goals. Delays between patient enrolment and case presentation meant delays in expert recommendations and thereby preventing recommendations from being implemented during the 12-week program. This was overcome by enrolling patients after clinicians had prepared a case presentation. | |
| 2017 Shelley et al ²¹ USA <i>ECHO Pain Curriculum: Balancing Mandated Continuing Education with the Needs of Rural Health Care Practitioners</i> | 'Chronic pain and headache management teleECHO' | Describe the rationale for longitudinal ECHO pain curriculum – goals, relevance, accessibility, content, learning activities, target audience | Narrative <i>Target: Project ECHO implementers</i> | <ul style="list-style-type: none"> • ECHO differs from other professional development curricula as it balances 'hub-and-spoke' needs • An effective ECHO program should offer a longitudinal curriculum, include topics suggested by clinician participants as well as mandated topics (relevance), combine short lectures and case-based discussion, include skills demonstrations, be flexible to allow for emerging topics/ issues, and have clear goals | |
| 2016 Zhou et al ⁴ Canada | 'Project ECHO'- | Synthesis of evidence of impact of Project | Systematic review | <ul style="list-style-type: none"> • Location – majority of studies had hubs and spokes located in the same state, some studies had a central hub and multiple spokes across different states, and | <ul style="list-style-type: none"> • Level 3 knowledge – 4 studies assessed knowledge using pre-post comparison (actual knowledge/1 |

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| <i>The Impact of Project ECHO on Participant and Patient Outcomes: A Systematic Review</i> | Systematic Review | ECHO programs on provider-related and patient-related outcomes | <i>Target:</i> Primary care providers | <p>fewer studies had a decentralised hub with specialists across multiple states.</p> <ul style="list-style-type: none"> • Target population – the majority of studies focused on the broader population with some focusing on special populations e.g. veterans, indigenous people. • Fidelity to original ECHO program was high for 2 studies, intermediate for 11 studies and low/insufficient information for 17 studies. • Quality assessment – 28/39 studies reported on at least one outcome from the 7 levels of Moore’s framework. • Level 1 participation – 12 studies reported on participation (n= 9-710). • Level 2 satisfaction – 13 studies reported on participant interviews/ surveys all with high satisfaction rates. | <p>study; and self-reported knowledge/3 studies), with 4 studies reporting an improvement</p> <ul style="list-style-type: none"> • Level 4 competence – 8 studies assessed competence using a rating scale and interviews, with 7 studies reporting an improvement • Level 5 performance – 1 study assessed performance and change in care/ medication delivery, reporting an increase in physical medicine and nonopioid prescribing • Level 6 patient health – 7 studies assessed change in health focusing on diseases HCV, dementia/behaviour and diabetes. Majority reported positive health outcomes (n=6) • Level 7 community health – no studies assessed this outcome • Cost-effectiveness studies – one found large savings from HCP ECHO compared to conventional treatment, another study found savings in travel costs for patients in SCAN-ECHO chronic liver disease. |
| 2015 Frank et al ²² USA <i>Evaluation of a Telementoring Intervention for Pain Management in the Veterans Health Administration</i> | ‘SCAN-ECHO-PM (pain management)’ | Evaluate the impact of pilot SCAN-ECHO-PM in 7 regional veteran healthcare networks on delivery of multi-disciplinary pain care, (defined as physical medicine, mental health, substance use disorder and specialty pain services) and medication initiation (nonopioid pharmacologic management) | Observation – post <i>Target:</i> Veterans affairs | <ul style="list-style-type: none"> • Participation – 159 providers from 7 participating networks (out of 21) presented cases (256 patients) • A total of 22,197 patients were exposed to ECHO (directly via case presentation and indirectly via provider), an average of 135 patients per provider • 75% of ‘exposed’ patients had at least one face-to-face visit with their provider post ECHO participation, and 25% had follow-up with providers who did not participate | <ul style="list-style-type: none"> • Participating providers were more likely to use ‘physical medicine’ rather than opioids • There was an increase in initiation of nonopioid pharmacologic management (anti-depressant and anti-convulsant medication) and decrease in opioids prescribing for participating providers compared to non-participating providers • Pain diagnoses were less prevalent among patients ‘exposed’, directly and indirectly, to the ECHO program • Mental health and substance use disorders also less prevalent among ‘exposed’ patients • On average, less than half of pain patients received community level primary care – this increased to 80% for ECHO participants |

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| | | defined as antidepressant or anticonvulsant medications) | | | |
| 2014 Katzman et al ²³ USA <i>Innovative Telementoring for Pain Management: Project ECHO Pain</i> | 'Project ECHO Pain' | Evaluate Project Echo Pain over a 3-year period using participant surveys, clinic data (attendance and cases) and assessment of practice change | Observation – cohort <i>Target:</i> Primary care providers | <ul style="list-style-type: none"> Participation – 763 providers from 191 sites in 29 states participated in Project ECHO Pain, with 93 providers presenting 304 cases Attendance and participation increased over the 3-year period for all profession types Participants were eligible for CPD points Participants enjoyed the interactivity, collaboration, and diversity of participants. They disliked lengthy presentations and delays due to introductions or technical issues. Over the 3-year period there was a significant increase in participant ratings of the program – they reported it to be effective, balanced, meeting objectives, relevant to practice and providing opportunity to ask questions | <ul style="list-style-type: none"> ECHO reduced professional isolation Participants felt more confident in their pain management practice due to encouragement from specialists Participants perceived that lessons were translated into practice with new skills gained for treating and managing pain |
| 2012 Scott et al ²⁴ USA <i>Project ECHO: a model for complex, chronic care in the Pacific Northwest region of the United States</i> | 'Project ECHO' | <p>Pilot Project ECHO in Pacific Northwest to improve rural access to complex chronic care</p> <p>Pilot was initially planned for Hepatitis C but expanded to include chronic pain, integrated addictions and psychiatry and HIV/AIDS.</p> | Observation – post <i>Target:</i> Primary care providers | <ul style="list-style-type: none"> Participation - 97 chronic pain clinics were held with 390 clinicians and 101 patients. The pilot was considered successful due to large number of patients co-managed Location of videoconferencing facilities in some rural clinics presented challenges e.g. in common areas such as break-out rooms preventing quiet and confidential consultation Initial hesitation in presenting patient cases (due to participants feeling intimidated by the number of experts, incomplete intake forms due to lack of time). This was reduced by decreasing the number of specialists, increasing site visits to build trust, streamlining intake forms and giving concrete recommendations before moving onto the next case Concerns about funding sustainability – negotiating with third-party payors (Medicare/ Medicaid) to establish ongoing reimbursements to both Project ECHO (\$400 per case) and participating rural clinics (\$150 per case) | |

¹ Implementation outcomes: curriculum development, enablers and barriers to implementation, satisfaction

² Participant, patient, and health system outcomes: Knowledge, confidence, competence, behavioural change, reduced professional isolation, patient outcomes and cost-effectiveness

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