## **Research paper**

# Primary healthcare response to family violence: a Delphi evaluation tool

Claire Gear BSocSci (Hons) Research Officer

Jane Koziol-McLain PhD RN Professor of Nursing

Interdisciplinary Trauma Research Centre, Auckland University of Technology, Auckland, New Zealand

Denise Wilson PhD MA (Hons) BA (SocSc) RN Associate Professor Maori Health, School of Public Health & Psychosocial Studies, Auckland University of Technology, Auckland, New Zealand

Ngaire Rae MPH BEd Applied Health Promotion Advisor, Manaia Health Primary Health Organisation, Whangarei, New Zealand

Hayley Samuel National Manager

Faye Clark MBChB FRNZCGP Recognition and Response Partner Abuse Trainer in Primary Care

Doctors for Sexual Abuse Care, Auckland, New Zealand

Edith McNeill

Maori Planning and Funding Manager, Waitemata District Health Board, Auckland, New Zealand

## ABSTRACT

**Background** Family violence is identified as a significant yet preventable public health problem internationally and in Aotearoa, New Zealand. Despite this, responses to family violence within New Zealand primary healthcare settings are generally limited and ad hoc. Along with guidelines and resources, a systems approach is indicated to support a safe and effective response to those who experience violence in the home.

**Aim** To modify an existing United States evaluation tool to guide implementation of family violence intervention programmes within New Zealand primary healthcare.

**Methods** Twenty-nine expert panellists, representing diverse family violence prevention and intervention organisations across New Zealand, participated in three rounds of a modified Delphi method to identify ideal primary healthcare family violence response programme indicators. In Round One, tool scope and context issues for New Zealand were identified; in Round Two, expert panellists identified ideal indicators and rated indicator importance, and in Round Three, expert panellists attended a one-day workshop to achieve consensus on tool categories, indicators, scoring and measurement notes. The developed tool was subsequently piloted at six volunteer primary healthcare sites for performance, clarity and usefulness.

**Results** The final tool encompasses 143 indicators organised within 10 categories. Pilot sites found the tool and evaluation experience useful in guiding programme development.

**Conclusion** The evaluation tool represents a best practice standard enabling focused family violence intervention programme development and quality improvement within primary healthcare settings. A standardised evaluation tool may be useful in guiding programme development. Future evaluations will enable individual and national benchmarking activities, using category, overall and target scores to measure progress across settings and over time.

**Keywords:** domestic violence, modified Delphi technique, New Zealand, primary healthcare, quality indicators

#### How this fits in with quality in primary care

#### What do we know?

Responses to victims of family violence within New Zealand primary healthcare are currently ad hoc and unsupported. Development of a systems approach to family violence intervention, alongside guidelines and institutional support, increases the likelihood of system-wide, sustainable change.

#### What does this paper add?

This paper presents the development of the Primary Health Care Family Violence Responsiveness Evaluation Tool. The tool guides implementation of a family violence intervention programme within primary healthcare, supporting clinicians in the identification, assessment and appropriate referral of victims of family violence and allowing for focused programme development and quality improvement efforts.

## Introduction

Family violence is a significant public health problem both internationally<sup>1-3</sup> and in Aotearoa, New Zealand.<sup>4-6</sup> Despite growing recognition that family violence assessment and intervention are part of general practice work, formal programme responses are limited. The many barriers preventing primary healthcare professionals from asking about violence are well documented.<sup>7-9</sup> The New Zealand Ministry of Health Violence Intervention Programme (VIP) in District Health Boards (DHBs) seeks to reduce and prevent health impacts of violence and abuse through early identification, assessment and referral of victims. Alongside VIP, Family Violence Intervention Guidelines for Partner Abuse, Child Abuse and Neglect,<sup>10</sup> and Elder Abuse and Neglect<sup>11</sup> and other general practice resources<sup>12,13</sup> are available to support health professionals in identifying and responding effectively to cases of family violence.

The availability of family violence intervention guidelines, together with institutional support, have been shown to increase the likelihood of system-wide, sustainable change.<sup>14–17</sup> Four studies demonstrate the value of using a standardised Delphi evaluation tool in guiding and monitoring programme development. Two address hospital-based domestic violence quality improvement efforts,<sup>18,19</sup> while Zink focuses on system supports for primary healthcare clinicians managing family violence.<sup>16</sup> Finally, Koziol-McLain *et al.*'s longitudinal evaluation of hospital-based violence intervention programmes using modified Delphi tools demonstrates their utility and ability to contribute to sustainable programme growth over time.<sup>20–24</sup>

An external evaluation commissioned by the New Zealand Ministry of Health monitored development of hospital VIP programmes at baseline and five follow-up periods based on established performance indicators<sup>20–24</sup> and has been important in informing ongoing family violence programme development. Yet currently, there is no strategy to systematically

monitor and evaluate responsiveness to family violence at the primary healthcare service delivery level. The use of an evaluation tool, informed by the New Zealand context, would support primary health organisations (PHOs) and general practices in implementing system-wide family violence intervention practices.<sup>16</sup> The Family Violence Quality Assessment Tool for Primary Care Offices (FVQA)<sup>16</sup> developed in 2007 in the USA, was the first family violence quality improvement instrument developed for primary care offices. Using a Delphi method, the authors modified the 'Delphi Instrument for Hospital Domestic Violence Programmes<sup>25</sup> for applicability to primary care, identifying 111 performance items divided into nine categories. The face validity and clarity of the instrument was then tested in 32 primary care offices, noting the need to further test the tool in different types and locations of offices. To our knowledge, this is the only tool addressing quality improvement of family violence intervention efforts in a primary care setting.

This study aimed to modify the FVQA for the primary healthcare context in New Zealand through collaboration with primary healthcare stakeholders. The desired outcome was a best practice standard for PHOs and general practices across New Zealand, allowing for focused development and quality improvement efforts. Development of the tool also aimed to complement hospital responsiveness to family violence efforts, creating a whole healthcare system approach to reducing family violence.<sup>26</sup>

## Methods

The study applied a modified Delphi technique with expert panellists to identify ideal primary healthcare family violence response indicators. Key stakeholders and nominations for expert panellists were identified by the core research team, the Ministry of Health VIP Portfolio Lead and DHB VIP coordinators. From these nominations, 29 expert panellists were strategically selected by the core research team to ensure broad representation across New Zealand. Inclusion criteria required participants to hold expertise in the area of primary healthcare, family violence or family violence programmes and be able to contribute knowledge and 'expert' opinion given their position and experience.<sup>27,28</sup> The developed tool was subsequently tested at six pilot sites for performance, clarity and usefulness. Network sampling was used to identify six pilot sites, regardless of their current level of family violence response, who then volunteered to be evaluated. The selected sites were all urban and North Island based. Two Māori (New Zealand indigenous people) health providers were purposively selected to be part of the sample given the need for the tool to be culturally responsive to Māori sensitivities, and following recommendations arising from consultation with Māori.

Auckland University of Technology Ethics Committee granted low risk ethical approval for evaluation tool development (08/249), and the New Zealand Health and Disability Multiregional Ethics Committee granted approval for the pilot testing phase (CEN/09/ 09/060). The study collected site system indicators, no individual level data was collected, and no abuse experiences were asked about or reported on. Both expert panellists and pilot sites were provided with study information sheets and consent forms which assured responses would be kept confidential, and aggregate data would ensure participant anonymity. Additionally, participants were given the option to consent to being named as an expert panellist or pilot site in any publication of the results with the aim of increasing credibility of the findings.<sup>27,28</sup>

Cultural responsiveness was a key consideration in both the research process and development of the evaluation tool. The core research team upheld processes which respected Māori in recognition of the Treaty of Waitangi (an agreement between Māori and the Crown) principles of partnership, participation and protection, as well as all persons and cultures. The core team included two Māori members and partnered with AUT's Kawa Whakaruruhau Komiti (cultural safety committee). Māori and representatives from Māori healthcare provider agencies were invited to participate on the expert panel and two Māori health providers were selected as pilot sites (mentioned above). Through these means, the study aimed to support a safe and effective response for Māori within primary healthcare family violence intervention programmes.<sup>29</sup>

17

#### Modified Delphi procedure

The Delphi technique aims to achieve consensus in a given area of uncertainty or lack of empirical evidence. It uses a series of 'rounds' combined by controlled feedback that seeks to gain the most reliable consensus of opinion of a group of experts.<sup>30,31</sup> Round One aimed to define the field of what was to be measured based on its proposed use. The seven members of the core research team individually reviewed the FVQA developed in the USA<sup>16</sup> for applicability to the primary healthcare context in New Zealand. Research team comments addressed the appropriateness, accuracy and representativeness of the content, including target audience, implementation barriers, funding and planning issues, health structures of care and tool language. Researcher comments were aggregated with consensus achieved regarding item modification to produce the first version of the New Zealand tool prior to consideration by the expert panel in the following round (Round Two).<sup>32</sup>

Two further rounds were applied to achieve consensus on family violence response indicators for an 'ideal' family violence intervention programme within primary healthcare (Figure 1). Round Two involved the mail-out (participant choice of electronic or postal) of a confidential questionnaire with two parts to 29 expert panellists. In Part A, panellists were asked to list indicators of an ideal primary healthcare family viol-

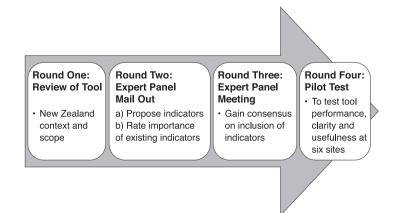


Figure 1 Delphi study rounds

ence programme (free text), and in Part B they were asked to indicate their level of agreement or disagreement for each of the indicators using a Likert scale (1 =strong disagreement, to 5 = strong agreement).<sup>31</sup> Consensus was defined when an individual indicator scores of > 3.0 was reached by 85% of the expert panellists.<sup>27</sup> Data from Part A of the mail-out results were entered into  $\operatorname{Microsoft}^{\operatorname{TM}}$  Office Word (2007) and qualitatively analysed (content analysis) to identify best practice indicators addressing issues not included in Part B. Data from Part B were entered into SPSS (v.15) and descriptive statistics used to summarise measures of central tendency and distribution. Indicators from Part A of the questionnaire, in addition to the indicators which achieved the consensus cut-off (defined above) in Part B were then collated producing the second version of the New Zealand tool for the next round.

Round Three involved 23 expert panellists coming together at a one-day workshop to achieve consensus on tool indicators, and collectively consider issues of content validity, compliance with the Treaty of Waitangi and cross cultural equivalence. As identified by Wilson,<sup>1</sup> the inclusion of a face-to-face meeting, not typically included in a Delphi technique, provided an effective mechanism for panellists to discuss and debate tool issues. Questionnaire results and minority responses, along with new items collected from Part A of the questionnaire were presented to the expert panel in this round for further consideration. First, using the second version of the tool, small groups of panellists worked to achieve consensus on inclusion of the tool's pre-determined categories and category descriptions. Panellists also were able to propose new categories where required. Following group presentations to the wider panel, each panellist individually rated the importance of each category's contribution to an effective family violence intervention programme using a Likert scale (1 = not important, 10 = very important). Category ratings were entered in Microsoft<sup>TM</sup> Office Excel (2007) averaged, and standardised to determine category weightings. Averages ranged from 8.2 to 10. Second, groups were provided with a table of indicators for a particular category and asked to consider each indicator in terms of category appropriateness, item wording and measurability. Panellists were encouraged to pass indicators to another group if they were more appropriate for another category, and to reword, delete or merge indicators as necessary. Groups were also asked to phrase indicator measurement notes, including evidence required to achieve the indicator. Third, groups worked to achieve consensus on indicator scoring within each category, first by prioritising indicators in order of importance, and then assigning an appropriate score to achieve a total category score of 100. Each group then presented the argument for indicator inclusion and scoring back to the wider expert panel for consideration. Finally, a Māori and

non-Māori non-New Zealand European caucus finalised cultural responsiveness indicators. Round Three resulted in the third version of the New Zealand tool in preparation for piloting.

#### Pilot testing procedure

Following the three modified Delphi Rounds, the third version of the tool was administered during one-day site visits at six primary healthcare settings, including a general practice and its associated PHO. An identified site liaison person managed the evaluation processes and participation, including relevant practice and PHO representation. Site liaison persons were provided with the evaluation tool prior to the visit, and asked to collect evidence of indicators. During the evaluation visit, one evaluator reviewed indicators and accompanying evidence, while another noted discussions addressing accuracy of tool measurement notes and indicator wording, scoring and relevance. Both evaluators recorded scoring and indicator evidence, resolved scoring contradictions during the evaluation, and noted where indicators needed further clarification.

In an evaluation 'debrief meeting' with participants at the end of the day, preliminary scores, programme strengths and recommendations were discussed. Site liaison persons were asked to provide written feedback on the evaluation tool and process. Draft reports were sent approximately three weeks after the evaluation to the site liaison persons to correct or clarify scoring and interpretations. Incorporating feedback, finalised site reports were sent to PHO and practice senior management and evaluation participants. PHO chief executive officers and practice managers were asked to comment on the usefulness of the evaluation and report in guiding programme development by responding to an evaluation form that included open-ended questions. Following the pilot study, data were aggregated and presented to the core research team. Consensus was achieved on making final tool revisions, particularly regarding indicator clarity and measurement notes, resulting in the final, fourth version of the tool. Evaluation comments were analysed using content analysis to identify tool usefulness (or lack of) and suggestions for future tool application.

### Results

#### **Tool development**

Round One results were analysed collectively by the core research team to produce a modified version of the FVQA, the New Zealand *Primary Health Care Family Violence Responsiveness Evaluation Tool.* This tool version included 96 indicators.

The response rate for Round Two was 93% (n = 27). In Part A, respondents identified 112 indicators of an ideal programme that were conservatively considered potentially unique from the 96 items listed in Part B. In Part B, a high level of consensus (mean scores ranging between 3.7 and 5.0) was achieved for retaining the original 96 indicators. Fourteen indicators with the lowest mean scores (between 3.6 and 4.5) were presented to the expert panel during Round Three to review clarity, wording and consensus on inclusion in the tool. The 208 (112 + 96) indicators were organised within nine categories: Collaboration, Policies & Procedures, Resourcing, Documentation, Physical Environment, Workplace Culture, Education, Routine Inquiry/Assessment and Quality Improvement (Table 1), including one potential new category 'Governance and Leadership' advanced to Round Three for consideration by the expert panel.

Twenty-three (79%) expert panellists participated in Round Three. Panellists agreed the scope of the evaluation tool should include partner abuse, child abuse and neglect, elder abuse and neglect and sexual assault. Owing to the variability between PHOs and general practices in size, resources, and independence, panellists agreed the tool should be promoted as a best practice standard to work towards. The new category, 'Governance & Leadership', was identified as necessary to address senior level programme governance and support, and Treaty of Waitangi concerns. Panellists rated 'Education' and 'Governance and Leadership' categories most important, and 'Quality Improvement' the least (Table 1). Categories were ordered purposefully within the tool to guide a phased approach to programme development beginning with 'Governance and Leadership' and ending with 'Quality Improvement'. The Māori and non-Māori non-New Zealand European caucus amended 11 indicators and added three new indicators. Round Three resulted in 133 indicators organised in 10 categories.

Category	Description	Weight
Governance and Leadership	Senior management/leadership-level support for the programme to encourage organisational commitment, buy-in and achievement of outcomes underpinned by the Treaty of Waitangi	10.7%
Collaboration	Collaboration with others, such as government agencies, community organisations, primary health organisations (PHOs) and other health services	10.4%
Policies and Procedures	Existence of written policies and procedures to support family violence identification and intervention	10.6%
Resourcing	Provision of sufficient resources and support structures for the programme	9.5%
Documentation	Forms for accurate documentation of family violence	9.9%
Physical Environment	Presence of family violence information and resources, and provision of private space for confidential inquiry and assessment	9.3%
Workplace Culture	The culture that exists within the workplace relating to issues of family violence	9.5%
Education	Provision of education about family violence must include child abuse and neglect, partner abuse, elder abuse and neglect, and sexual assault for primary healthcare providers	11.1%
Routine Inquiry/ Assessment	Recognise, respond, refer	10.1%
Quality Improvement	Evaluation and measurement of the quality of primary healthcare family violence programme	8.9%

#### Table 1 Tool categories and weightings

#### **Pilot testing**

20

Overall family violence programme scores ranged from 12 to 56, with a median score of 39. The distribution of scores across and within the 10 categories is demonstrated in Figure 2. 'Physical Environment' was the highest scoring category (median score = 60), followed closely by 'Governance and Leadership' (median score = 58). 'Quality Improvement' was the lowest scoring category (median score = 0). There was generally wide variation in scores within categories. The core research team collaborated to address queries and suggestions raised during site visits regarding tool measurement notes, indicator wording, scoring and relevance. This resulted in selected indicators being merged and additional indicators added. The final tool included 143 indicators within 10 categories (Table S1).

All six sites provided feedback on the evaluation. The evaluation tool and processes were considered useful by all, two sites specifically commented on how the tool could be used as a development guide for their programme, providing good direction as to next steps. One site suggested the tool could be improved by identifying who was responsible for various indicators, such as the Ministry of Health, the PHO or the general practice. This issue had arisen across the pilot sites and the evaluators had resolved this to some extent by focusing on the service provided to clients, rather than who provided the service. Four sites commented that they found the evaluation report to be accurate, thorough and that it would inform future development. One practice senior manager felt 'despondent' recognising the significant effort required to reach best practice standard. Based on this feedback, the core research team recognised a need to more clearly communicate evaluation aims and processes with senior management.

## Discussion

Using a modified Delphi technique, the development of an evaluation tool with 143 performance indicators across 10 categories occurred. The indicators represent extensive stakeholder agreement, with established measurement notes for each indicator and category to ensure consistency. It is important to note the tool is one resource to support the development and implementation of a systems approach to responding to family violence within primary healthcare. Additionally, national programme and resource development, such as policy and business case templates, standardised electronic clinical practice forms, national network of coordinators and programme funding would support a systems approach to responding appropriately and safely to family violence within the primary healthcare setting. Yet, until evidence

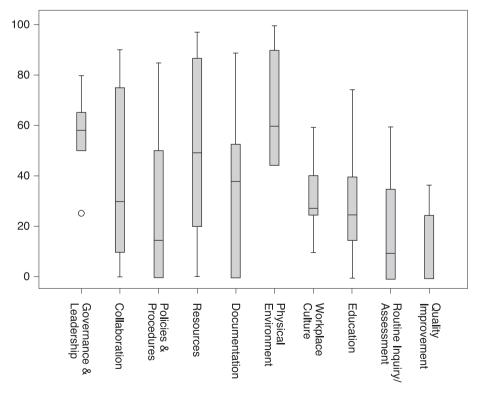


Figure 2 Category boxplots.

exists on the effectiveness of documenting primary healthcare family violence assessment and intervention, the knowledge and experience of experts provided an appropriate mechanism to guide programme and practice developments.

An important strength of this study was the diversity of experts that participated in identifying indicators of an ideal primary healthcare response to family violence. They included, for example, general practitioners and practice nurses, clinic managers, family violence (child protection, partner abuse, sexual abuse, elder abuse) specialists, police, refuge (shelter) and community agency representatives, policy makers and acute healthcare family violence intervention coordinators. This group recognised the need for safe, effective care provided within the context of individual primary healthcare practices and communities. The third face-to-face round, not generally included in Delphi rounds, was an efficient mechanism that offered the opportunity to discuss and debate dilemmas, while working towards the goal of consensus. Finally, testing the tool in six sites provided an opportunity to identify and correct points of tool weakness, generally focusing on indicator meaning and measurement.

The New Zealand tool includes several improvements over the original FVQA tool that may be generalisable. The addition of a 'Governance and Leadership' category highlights the importance of senior management and organisational commitment to achieving system change.<sup>17</sup> Ordering the categories in a phased approach to guide programme development was also considered important by the panellists and pilot sites. There is also greater attention in the New Zealand tool to cultural responsiveness, addressing the need for health systems and programmes to address appropriateness and quality of services for disadvantaged and marginalised groups.

There are several limitations to consider with regard to this study. Importantly, it focused on the current healthcare delivery system in New Zealand. Alternative health delivery models and other contexts may require further tool modification. It is also important to consider that the tool reflects best knowledge and experience at the time of the study. As new knowledge becomes available and systems learn from experience, indicators may become obsolete or need modification.

Finally, the pilot test was conducted in six volunteer urban-based primary healthcare settings in the North Island of New Zealand that were keen to focus their attention on family violence system developments. The evaluation tool and processes would likely be challenged with extending the evaluation further. These sites varied largely in characteristics (such as independence and funding), and all were in the early stages of programme development, beginning to address 'Governance and Leadership and 'Resourcing' categories while 'Routine Inquiry/Assessment' and 'Quality Improvement' category development was absent.

21

#### Implications

Evaluation of sites using a standardised tool facilitates benchmarking activities.<sup>33</sup> Benchmarking has two key uses: first, PHOs and general practices can be compared against one another at a high level with the aid of aggregate quality scores and meeting a pre-determined target score, and second, individual quality scores can be used for continuous quality improvement within each PHO and general practice.<sup>34,35</sup> Scores for each category are aggregated, enabling comparison across the PHOs and with an optimal target score, arbitrarily set as 70 out of 100. This enables PHOs to work towards a target score through quality improvement activities, and can be reviewed at a later date.<sup>36</sup> Future follow-up evaluations at the pilot sites will enable benchmarking activities and further test tool performance as indicators are achieved over time. In addition, while during this study site liaisons were not required to complete a self-evaluation prior to the onsite evaluation, this process could be implemented to test tool performance.

This study resulted in the Primary Health Care Responsiveness to Family Violence Evaluation Tool. The tool was developed for application within the New Zealand primary healthcare context to support family violence intervention programme development. While some tool indicators may require modification for use beyond the New Zealand context, the phased approach of the tool could be used to support effective, sustainable programme implementation elsewhere. It is hoped that the tool will coincide with other New Zealand developments including review and updating of national guidelines, standardised primary healthcare electronic record family violence forms, and other resources contributing to capacity and capability building in responding to individuals, families and communities who have for too long suffered the burden of violence without healthcare assistance.

#### ACKNOWLEDGEMENTS

Thanks to Jo Adams for her initial work in planning this project, Sue Zimmerman and expert panellists and pilot sites involved in the study.

#### REFERENCES

- Krug EG, Dahlberg LL, Mercy JA, Zwi AB and Lozano R (eds). World Report on Violence and Health. Geneva: World Health Organisation, 2002.
- 2 Ellsberg M. Violence against women and the Millennium Development Goals: facilitating women's access to

support. International Journal of Gynaecology and Obstetrics 2006;94(3):325–32.

- 3 Pinheiro PS. *World Report on Violence Against Children*. Geneva: United Nations Secretary-General's Study on Violence Against Children, 2006.
- 4 Fanslow J and Norton R. Violence against women: priorities for public health research in New Zealand. *New Zealand Medical Journal* Feb 23 1994;107(972):63– 4.
- 5 Departments of the Prime Minister and Cabinet and Social Welfare. New Zealand Government Statement of Policy on Family Violence. Wellington: Wellington Department of the Prime Minister and Cabinet, 1996.
- 6 Family Violence Focus Group. *Te Rito: New Zealand Family Violence Prevention Strategy*. Wellington: Ministry of Social Development, 2002.
- 7 Feder G. Responding to intimate partner violence: what role for general practice? *British Journal of General Practice* 2006;56(525):243–4.
- 8 Hegarty K, Taft A and Feder G. Violence between intimate partners: working with the whole family. *BMJ* 2008;337:a839.
- 9 Sugg NK, Thompson RS, Thompson DC, Maiuro R and Rivara FP. Domestic violence and primary care. Attitudes, practices, and beliefs. <u>Archives of Family Medicine</u> 1999;8(4):301–6.
- 10 Fanslow J. Family Violence Intervention Guidelines: Child and Partner Abuse. Wellington: Ministry of Health, 2002.
- 11 Glasgow K and Fanslow J. Family Violence Intervention Guidelines: Elder Abuse and Neglect. Wellington: Ministry of Health, 2006.
- 12 Ministry of Health. *Recommended Referral Process for General Practitioners: Suspected Child Abuse and Neglect.* Wellington: Ministry of Health, 2001.
- 13 Ministry of Health. *Recognising and Responding to Partner Abuse: A Resource for General Practice.* Wellington: Ministry of Health, 2003.
- 14 Fanslow JL, Norton RN and Robinson EM. One year follow-up of an emergency department protocol for abused women. *Australian and New Zealand Journal of Public Health* 1999;23(4):418–20.
- 15 Campbell JC, Coben JH, McLoughlin E *et al*. An evaluation of a system-change training model to improve emergency department response to battered women. *Academic Emergency Medicine* 2001;8(2):131–8.
- 16 Zink T. Family violence quality assessment tool for primary care offices. *Quality Management in Health Care* 2007;16(3):265–79.
- 17 O'Campo P, Kirst M, Tsamis C, Chambers C and Ahmad F. Implementing successful intimate partner violence screening programs in health care settings: evidence generated from a realist-informed systematic review. *Social Science & Medicine* 2011;72(6):855–66.
- 18 Wilson D, Koziol-McLain J, Garrett N and Sharma P. A hospital-based child protection programme evaluation instrument: a modified Delphi study. *International Journal* of *Quality Health Care* 2010;22(4):283–93.
- 19 Coben JH and Fisher EJ. Evaluating the implementation of hospital-based domestic violence programmes. *Family Violence Prevention and Health Practice* 2005;1(2):1– 11.

- 20 Koziol-McLain J, Adams J, Davies E, Balzer R, Harvey S and Coben J. Hospital Responsiveness to Family Violence: 12 Month Follow-Up Evaluation. Auckland: Interdisciplinary Trauma Research Unit, Auckland University of Technology, 2006.
- 21 Koziol-McLain J, Adams J, Garrett N and Sharma P. Hospital Responsiveness to Family Violence: 30 Month Follow-Up Evaluation. Auckland: Interdisciplinary Trauma Research Unit, Auckland University of Technology, 2007. ISSN 1177–4347, Report No 7.
- 22 Koziol-McLain J, Adams J, Neitzert E et al. Hospital Responsiveness to Family Violence: Baseline Audit Findings. Auckland: Interdisciplinary Trauma Research Unit, Auckland University of Technology, 2004.
- 23 Koziol-McLain J, Garrett N and Gear C. Hospital Responsiveness to Family Violence: 48 Month Follow-Up Evaluation. Auckland: Interdisciplinary Trauma Research Unit, Auckland University of Technology, 2009. ISSN 1177–4347, Report No 8.
- 24 Koziol-McLain J, Gear C and Garrett N. Hospital Responsiveness to Family Violence: 60 Month Follow-Up Evaluation Report. Auckland: Interdisciplinary Trauma Research Unit, Auckland University of Technology, 2010. ISSN 1177–4347, Report No 9.
- 25 Coben J. Measuring the quality of hospital-based domestic violence programmes. <u>Academic Emergency Medicine 2002;9(11):1176–83.</u>
- 26 King A. *The New Zealand Health Strategy*. Wellington: Ministry of Health, 2000.
- 27 Hardy DJ, O'Brien AP, Gaskin CJ *et al.* Practical application of the Delphi technique in a bicultural mental health nursing study in New Zealand. *Journal of Advanced Nursing* 2004;46(1):95–109.
- 28 Hasson F, Keeney S and McKeena H. Methodological issues in nursing research. *Journal of Advanced Nursing* 2000;32(4):1008–15.
- 29 Maori Health Committee of the Health Research Council, New Zealand. Guidelines for Researchers on Health Research Involving Maori. Auckland: Health Research Council of New Zealand, 2008.
- 30 Kennedy PH. Enhancing Delphi research: methods and results. Journal of Advanced Nursing 2004;45(5):504–11.
- 31 Greatorex J and Dexter T. An accessible analytical approach for investigating what happens between the rounds of a Delphi study. *Journal of Advanced Nursing* 2000;32(4):1016–24.
- 32 Berk RA. Importance of expert judgment in contentrelated validity evidence. *Western Journal of Nursing Research* 1990;12(5):659–71.
- 33 Daniels N, Flores W, Pannarunothai S *et al*. An evidencebased approach to benchmarking the fairness of healthsector reform in developing countries. *Bulletin of the World Health Organization* 2005;83(7):534–40.
- 34 Heddle NM, Liu Y, Barty R et al. Factors affecting the frequency of red blood cell outdates: an approach to establish benchmarking targets. *Transfusion (Paris)* 2009;49(2):219–26.
- 35 Scholle SH, Roski J, Adams JL *et al.* Benchmarking physician performance: reliability of individual and composite measures. *American Journal of Managed Care* 2008;14(12):833–8.

36 Schoen C, Davis K, How SK and Schoenbaum SC. U.S. health system performance: a national scorecard. *Health Affairs (Millwood)* 2006;25(6):w457–75.

#### FUNDING

Evaluation tool development was funded by the New Zealand Ministry of Health.

#### ETHICAL APPROVAL

Evaluation tool Delphi study ethics approval granted by: Auckland University of Technology Ethics Committee (08/249); Pilot testing ethics approval granted by: New Zealand Health and Disability Multiregional Ethics Committee (CEN/09/09/060).

#### PEER REVIEW

Not commissioned, externally peer reviewed.

#### CONFLICTS OF INTEREST

None.

#### ADDRESS FOR CORRESPONDENCE

Claire Gear, Interdisciplinary Trauma Research Centre, School of Health Care Practice, Auckland University of Technology, Private Bag 92006, Auckland 1142, New Zealand. Email: claire.gear@aut.ac.nz

Received 10 June 2011 Accepted 6 November 2011

## Appendix

#### Expert panellists

Jane Koziol-McLain, Interdisciplinary Trauma Research Centre, AUT University Zaif Khan, Preventing Violence in the Home Mary Pritchard, Preventing Violence in the Home Hayley Samuel, Doctors for Sexual Abuse Care Julie Hart, Women's Refuge Brenda Hynes, Plunket Teresa Olsen, Kokiri Marae Health and Social Services Senior Sergeant Vaughn Graham, New Zealand Police Eileen Palmer, Child Youth & Family Nicola Attwool, Office of the Children's Commissioner Rosemary Fauchelle, Ministry of Social Development Carlene McLean, Nelson Marlborough District Health Board Pauline Cruickshank, Taranaki Hauora Ngaire Rae, Manaia Health Edith McNeill, Wai Health Hilary Graham Smith, Pinnacle Health Helen Francis, Hastings Health Centre Ada Wanoa-Armstrong, Procare Miranda Ritchie, National Violence Intervention Programme Manager Lesley Dixon, New Zealand College Of Midwives Wendy Findlay, New Zealand Nurses Organisation Faye Clark, Royal New Zealand College of General Practitioners Ngaire Harris, Waiora Healthcare Trust PHO Yvette Grace, Rangitane o Wairarapa Denise Wilson, Massey University Sue Zimmerman, Ministry of Health Jeremy Lecomte, Department of Corrections Kylie Tippett, Rape Crisis

## **Pilot sites**

24

Auckland PHO & Piritahi Hau Ora Waiora Healthcare & Wai Health Hauora Taranaki & Te Aroha Medcare Manaia Health & Paramount Medical Centre Hawke's Bay PHO & Hastings Health Centre ProCare Health Manukau Limited & Bairds Road Family & Christian Health Centre

## Table S1 Indicators across Delphi rounds

Categories and associated indicators	Round 2 $n = 29$	Round 3 $n = 23$	Pilot $n = 6$	Final Tool
1. Governance and Leadership			1	<ul> <li>Image: A start of the start of</li></ul>
<ul><li>1.1. Is family violence included in the PHO strategic plan?</li><li>1.2. Does the PHO work with Māori in accordance with the</li></ul>		1	1	1
Treaty? 1.3. Is family violence included in the PHO Māori Health		1	1	✓
Action Plan? 1.4. Is there a PHO identifiable coordinator for violence/	4.54	1	1	1
abuse prevention and intervention? 1.5. Is there a PHO based family violence steering group that includes:	4.76			
<ul><li>(i) PHO and DHB Family Violence Intervention Coordinators?</li></ul>	(4.63, 4.70) *	1	1	✓
(ii) PHO and practice management representatives?	4.70	1	1	1
(iii) Clinicians?	4.85	1	1	1
<ul> <li>(iv) Māori and other relevant non-Māori, non-Pakeha group representatives, including immigrant and refugee groups?</li> </ul>	4.78	1	1	1
(v) Community service representative(s)?	4.74	1	1	1
(a) Does the steering group meet at least quarterly?	4.35	1	1	1
Total Items	9	9	10	10
<ul><li>2. Collaboration</li><li>2.1. Does the PHO collaborate with:</li></ul>				
(i) DHB Violence Intervention Programme (VIP) and other secondary healthcare services?	4.93	1	1	1
(ii) Local Māori?	4.81	$\checkmark$	✓	1
(iii) Community service providers? (e.g. women's refuge, Age Concern, Rape Crisis)	4.89	1	1	1
(iv) Statutory agencies? (e.g. CYF, police)	4.89	1	1	1
(v) Community family violence interagency group?	4.64	$\checkmark$	✓	1
(a) Does the PHO collaborate with these groups on policy and procedure development and review?	4.73	1	1	1
2.2. Does a relevant staff member collaborate with community child protection, adult and elder protection agencies?	4.43	1	1	1
<ul><li>2.3. Does a relevant staff member collaborate with local Sexual Abuse Assessment Treatment Service (SAATS)?</li></ul>	4.35	1	1	1
<ul><li>2.4. Is training conducted in collaboration with other agencies? (e.g. women's refuge, Age Concern, CYF, police)</li></ul>	4.85	1	1	1

2.5. Does the PHO collaborate with the community in promoting family violence awareness, prevention and intervention as a health issue?		+	1	1	
Total Items	9	10	10	10	
<ul><li>3. Policies and Procedures</li><li>3.1. Do written policies addressing the assessment and treatment of victims of family violence:</li><li>(a) Define family violence?</li></ul>	4.90				
(i) Child abuse and neglect	4.96	1	1	1	
(ii) Partner abuse	4.96	1	✓	✓	
(iii) Elder abuse and neglect	4.96	1	1	1	
<ul> <li>Sexual abuse</li> <li>(b) Mandate family violence education for staff?</li> <li>Select i, ii OR iii</li> <li>(i) Mandatory for all staff (<i>clinicians and non-clinicians</i>)</li> <li>(ii) Mandatory for clinicians only</li> </ul>	5.00				
<ul><li>(ii) Wandatory for enherans only</li><li>(iii) 'Recommended' for any staff (<i>rather than mandated</i>)</li><li>(c) Require family violence assessment for all women, men and children as per current guidelines?</li></ul>	4.89	1	1	1	
(i) Children assessed for child abuse and neglect	4.75	1	1	1	
(ii) Young persons and adults assessed for partner abuse	4.12	1	1	$\checkmark$	
(iii) Older adults assessed for elder abuse and neglect	4.72	1	1	$\checkmark$	
All young persons and adults screened for sexual assault	4.26				
(iv) Policy requires co-assessment of partner abuse and	(4.88,	1	1	$\checkmark$	
child abuse and neglect	4.96)*				
(d) Indicate that all staff share responsibility for	4.42	1	1	1	
<ul><li>appropriately addressing family violence?</li><li>(e) Address appropriate confidential documentation to a standard of professional excellence, within legal limitations?</li></ul>	4.77	1	1	1	
If children/tamariki are patients, includes a 'code' or 'term' to indicate partner abuse screen results in the chart. (f) Outline best practice reporting requirements of:	4.80		1		
(i) Reporting suspected or disclosed child abuse and neglect to specialist paediatrician and CYF or police	4.92	1	1	~	
Address legal reporting requirements for partner abuse	4.81				
Address legal reporting requirements for sexual abuse	4.80				
(ii) Appropriate referral of vulnerable elders with suspected or disclosed abuse and neglect	4.85	1	1	1	
<ul><li>(g) Address private space and time for confidential interviewing?</li><li>(h) Address safety and security?</li></ul>	4.56	1	1	1	
Not to confirm a patient is at the practice	4.52				
No messages left on an answer-phone unless the patient gives permission	4.70				
<ul><li>(i) Is practice safety with regard to family violence intervention risks addressed?</li></ul>	4.96	1	1	1	
(ii) Is a response for employees experiencing or perpetrating Family Violence addressed?		+	1	1	
(i) Supported by translation materials?		+	1	1	
Total Items	23	16	16	16	

25

26

Categories and associated indicators	Round 2 $n = 29$	Round 3 $n = 23$	Pilot $n = 6$	Final Tool
4. Resourcing	4.05		1	
4.1. Does the PHO allocate adequate staff time for the programme? (e.g. release time for collaboration with	4.85	<i>✓</i>	1	1
community and training)				
4.2. Does the PHO allocate adequate financial resources for				
programme? (e.g. funding training, community				
activities, resources including coordinator FTE) (a) No funding				
(b) \$10 000-\$20 000				
$(c) \ge \$20\ 000$	4.85	1	1	1
(i) Child abuse and neglect agencies	4.96	1	1	1
(ii) Partner abuse agencies	4.96	1	1	1
(iii) Stopping violence/violence prevention programmes	4.89	✓	✓	1
(iv) Elder abuse and neglect agencies	4.96	1	1	1
(v) Sexual abuse agencies	4.96	1	1	1
<ul><li>(vi) A list of counsellors knowledgeable in family and sexual violence</li></ul>	4.56	1	<b>√</b>	1
(vii) Local advocacy services (e.g. victim support)		+	1	
(viii) Social work services	4.00	+	1	1
(ix) National services	4.89	1	<b>√</b>	5
<ul><li>(x) Culturally relevant services</li><li>(xi) LGBT services</li></ul>			+ +	<i>s</i>
(xi) Deaf and disability services			+	✓ ✓
<ul><li>4.4. Are victim advocacy services accessible on-site? (This does not include a social worker, see 4.5)</li></ul>	3.68	1	1	1
4.5. Is a social worker accessible on-site, including the use of an available room?	3.81	1	1	1
4.6. Is there a designated family violence leader in the practice?	4.64	1	1	1
4.7. Are procedures in place to ensure patient safety when leaving the practice? (e.g. taxi chits, contacting women's refuge)	4.62	1	1	1
4.8. Are the resources for primary healthcare 'Recognising and Responding to Partner Abuse' and 'Suspected Child Abuse and Neglect' available for reference by GPs, RNs and community health workers?	4.65	1	1	1
<ul><li>4.9. Are trained interpreters available (including access to telephone interpreter service) for working with victims if English is not the first language?</li></ul>	4.85	1	1	1
Total Items	13	15	20	20
5. Documentation IDENTIFICATION:				
5.1. Are standardised intervention checklists, electronic resources or card prompts available for staff to use/ refer to when victims are identified?	4.95			
(i) Child abuse and neglect	4.96	1	1	1
(ii) Partner abuse	4.96	1	1	1
<ul><li>(iii) Elder abuse and neglect</li><li>(iv) Sexual abuse</li></ul>	4.96		1	
	4.96	1	./	

5.2. Is an alert system used within the practice? ASSESSMENT:	4.62	1	1	1	
5.3. Which standardised forms are used following identification?					
Risk assessment tool for lethality	4.88	1	$\rightarrow$ 5.3b	,	
(a) Body map to document injuries	4.93	1	1	1	
(b) Safety assessment	4.96	1	1	1	
(c) Safety plan	4.96	1	1	1	
(d) Medical photography is offered to persons with family violence injuries.	4.27	1	1	1	
(e) In the case of Māori, is it documented whether the individual was offered access to appropriate Māori services?	4.65	1	1	1	
(f) Is it documented that culturally appropriate services were offered to non-Maori?			+	1	
REFERRAL:				,	
5.4. Does standardised referral documentation form record:		+		<i>.</i>	
(i) The service the patient was referred to?		+		<b>v</b>	
(ii) Person referral was sent to?		+	<b>v</b>	<b>v</b>	
(iii) Any follow up actions?		+	<b>v</b>	1	
5.5. The outcome of referral or follow-up?		+	✓	✓	
Total Items	12	16	15	15	
6. Physical Environment					
6.1. Are there posters related to violence/abuse on public display:					
(i) In the waiting room with referral number OR In the waiting room without referral	4.22	1	1	1	
(ii) In other areas with referral number OR In other areas without referral number		+	1	1	
6.2. Are brochures publicly available that include family violence referral information for local and/or national services on:	4.38				
(i) Child abuse and neglect		1	/	1	
(ii) Partner abuse		+	v /	v (	
(iii) Elder abuse and neglect		+ +	v /	v (	
(iv) Sexual assault/abuse			v /	✓ ✓	
(a) Do brochures include referral information for Māori	4.62	+	v /	v (	
and other relevant culturally specific services?		v	v	v	
(b) Are brochures with referral information available in languages other than English?	4.69	~	~	<b>v</b>	
6.3. How does the practice provide a safe and private environment for inquiry? <i>Select i OR ii</i>		+			
(i) All clinical assessment areas are private for family violence intervention?		+	1	1	
(ii) Measures are in place to maximise safety of patient? (If all clinical areas are not single rooms)					
6.4. Is a message of zero tolerance for violence displayed for safety of staff and patients?			+	1	
Total Items	4	9	10	10	
7. Workplace Culture					
7.1. In the last two years, has there been a formal (written) assessment of practice staff's knowledge and attitude about family violence and their competence and comfort in assessing?	4.15	<i>√</i>	1	1	

27

Categories and associated indicators	Round 2 $n = 29$	Round 3 $n = 23$	Pilot $n = 6$	Final Tool
<ul> <li>7.2. What formal procedures are in place to support PHO and practice employees who are experiencing family violence (victims or perpetrators):</li> <li>(a) Is the topic of family violence in the workplace (experienced or perpetrated by employees) included in:</li> <li>(i) Training sessions?</li> </ul>	4.78	1	1	1
(ii) Orientation for new employees?	4.73	1	1	1
<ul><li>(b) Are supervisors/managers trained on family violence in the workplace?</li></ul>	4.81	1	1	1
(c) Do employees have access to an employee assistance programme (or similar)?		+	1	1
<ul><li>(d) Does the PHO and practice ensure that employee assistance programme providers (or similar) are skilled in addressing family violence?</li></ul>		+	1	1
(e) Is there a requirement for a pre-employment staff check by the police?		+	1	1
7.3. Do policies or procedures recommend and provide access to trained peer support following an abuse disclosure (or suspicion, in the case of child and elder abuse or neglect)?		+	1	\$
7.4. If there is a periodic newsletter, does it include updates on violence prevention/intervention issues?	4.48	1	1	1
<ul><li>7.5. Is family violence on the agenda at regular staff meetings?</li></ul>	4.52	1	1	1
<ul><li>7.6. Do policies and procedures support cultural safety:</li><li>(a) Is assessment and inquiry specifically recommended in family violence policy regardless of the patient's cultural background?</li></ul>	4.75	√ √	\$ \$	5 5
<ul><li>(b) Do staff participate in cultural safety training including refresher?</li></ul>			+	1
(c) Does the family violence policy address not using family members (including children) to translate for family violence discussion and other sensitive issues?	4.93	1	1	1
Total Items	8	12	13	13
<ul> <li>8. Education</li> <li>8.1. Formal PHO family violence training plan: <ul> <li>(a) Are there provisions outlined for initial training to be delivered within the first 12 months of employment for clinical AND non-clinical staff? (Clinical: e.g. GPs, NPs, RNs, midwives, community health workers, physiotherapists, pharmacists and others. Non-clinical: managers, reception and health promoters)</li> </ul></li></ul>	(4.93, 4.54)*		\$	1
<ul><li>(b) Are there provisions outlined for ongoing training for clinical AND non-clinical staff?</li></ul>	(4.93, 4.54)	1	1	
<ul><li>(c) Is family violence training part of orientation for new staff?</li></ul>	4.85	1	1	1
<ul><li>(d) Have employed clinical and non-clinical staff attended family violence training within the last two years?</li></ul>		+	1	1
<ul><li>(e) Is training developed and delivered in consultation with relevant community stakeholders?</li></ul>		+	1	1

staff to receive specialised sexual abuse training (i.e. DSAC facilitated training)? (g) Are staff enabled to attend training? + (h) Is an evaluation of staff knowledge, confidence and + attitude of family violence conducted pre- and post training? In the last 12 months, has the practice administration 4.52 provided training on family violence or communicated family violence training opportunities to staff and subsidised their attendance? 8.2. In the last 12 months have professionals or community 4 54 experts with family violence expertise in violence/abuse provided training at the practice? (Such as referral and management of offenders, child exposure to IPV, elder abuse/neglect, child abuse/neglect, sexual assault and same sex partner violence) 8.3. Does training information include: ++\* (a) Definition, contexts and patterns of family violence? + (b) Sexual assault as a part of family violence? + 4.93 (c) Cultural issues? (d) Disability and family violence (e) Recognition and assessment as per MOH guidelines and general practice resources? (f) Intervention as per MOH guidelines and general + practice resources? (g) Patient safety +(h) On-going support for victims and perpetrators +(i) Appropriate referral pathways? + 8.4. Training includes skill development (e.g. case scenarios) **Total Items** 8 16 19 19 9. Routine Inquiry/Assessment 9.1. Which standardised family violence assessments (e.g. 4.91 written, computer prompts and/or verbal) are included on health/clinical record forms? 4.96 (i) Child abuse and neglect (ii) Partner abuse 4.96 (iii) Elder abuse and neglect 4.96 (iv) Sexual abuse/assault 4.96 (a) Is the recording of family violence safety status coded yet unidentifiable? 9.2. Is the percentage of eligible patients assessed for partner 4.38 abuse in the past 12 months recorded? (a) Is the percentage of patients referred to an appropriate + agency following a routine inquiry recorded? (b) Is the percentage of patients followed up by practice + staff after routine inquiry recorded? (c) Is the reason for not assessing recorded? +(d) Are child abuse and neglect referral rates to CYF, police +and specialist paediatricians monitored? 1 1 (e) Are elder abuse and neglect referral rates to specialist +support services monitored?

+

29

#### Table S1 Continued

(f) Does the PHO/practice support medical and nursing

30

Categories and associated indicators	Round 2 $n = 29$	Round 3 $n = 23$	Pilot $n = 6$	Final Tool
9.3. Is there a follow-up process to improve assessment		+	1	1
rates? 9.4. Are there referral pathways for persons who self- disclose abusive behaviours?		+	1	1
Total Items	6	13	13	13
<ul><li>10. Quality Improvement</li><li>10.1. Is there a formal quality improvement plan in place to monitor the family violence programme?</li></ul>	4.88	1	1	✓
(a) Does quality improvement planning and review include an interdisciplinary team?		+	1	1
Is there routine peer-to-peer case reviews around family violence and feedback?	4.62			
<i>Is there a mechanism to periodically assess and document percentages of eligible patients screened/assessed?</i>	4.88			
(b) Is the responsibility for acting on evaluation recommendations specified in policies and procedures?		+	1	1
<ul><li>(c) Do evaluation activity reports follow a plan-do-study- act process?</li></ul>		+	1	1
10.2. Do quality improvement activities include relevant audit and review of policy implementation for:				
(a) Safety planning		+	1	1
(b) Documentation		+	1	
(c) Data relating to identification, assessment and referral 10.3. Are standardised case reviews conducted?		+	1	5
10.5. Are standardised case reviews conducted: 10.4. Are demographics, risk assessment and types of abuse trends reviewed?		+ +	✓ ✓	✓ ✓
10.5. Is programme effectiveness and outcome measures collected from relevant stakeholders?	4.72			
<ul><li>(i) Government and NGO service providers? (e.g. women's refuge, CYF)</li></ul>		+	1	1
(ii) Client and community stakeholders? (Māori, individual end-users)		+	1	1
(iii) Relevant healthcare providers?		+	1	1
(a) Is a quality framework used to evaluate programme cultural safety?		+	1	1
(b) Do outcomes focus on whānau rather than individuals?		+	1	✓
(c) Are positive outcomes being achieved for whānau?		+	$\checkmark$	1
10.6. Are evaluation recommendations reported to stakeholder groups?		+	1	1
10.7. Are staff routine inquiry and prevention efforts recognised and reinforced?	4.50	1	1	1
Total Items	5	17	17	17
Total Items by Round	97	133	143	143

Note:  $\checkmark$ Indicator included within final tool; Indicators not included in final tool are displayed in italics; (##,##) Agreements for two indicators that were merged into one; + indicator was included in the tool in that round; ++ additions were made to indicator;  $\rightarrow$  indicator was merged with another; \*indicator was added or modified following pilot testing.