Excerpt from:
IOM (Institute of Medicine). 2011. *Preventing violence against women and children: Workshop summary.* Washington, DC: The National Academies Press. pp 169-184.

Using a Systems-Model Approach to Improving IPV Services in a Large Health Care Organization

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Introduction

Intimate partner violence (IPV) is a common and costly health problem associated with substantial medical and mental-health issues for victims and their children. Women, the most common victims of IPV, access the health care system frequently over the course of their lives for preventive and routine care, as well as for trauma and abuse-related conditions. Thus, health care offers many valuable opportunities for early identification, tailored interventions, and primary prevention.

Despite these opportunities, identification and intervention for IPV is not a common or consistent practice in most health care settings. This is unfortunate, but not surprising. For many years, clinical practice guidelines and recommendations from professional organizations focused primarily on the training of clinicians. But, over time, it became clear that clinician-focused efforts had only limited success, producing little or no increase in the rates of identification and referral.

In 2001, the Institute of Medicine (IOM) urged health care delivery systems to develop and evaluate innovative programs that would go beyond traditional clinician training methods for addressing IPV. In a report titled *Confronting Chronic Neglect: The Education and Training of Health Care Professionals on Family Violence*, the IOM called attention to a 1998 pilot program, implemented by Kaiser Permanente Northern California, which had been associated with a significant increase in rates of screening, identification, and referral to a mental-health clinician, and had been well accepted by clinicians. The IOM report noted that Kaiser Permanente had achieved these results by implementing a "systems-change model"

in which clinician training was just one component of a larger intervention designed to make use of the entire health care environment — not just the doctor office visit — to address intimate partner violence.

Since its 1998 pilot, Kaiser Permanente has disseminated the systems-model approach to medical centers throughout the Northern California region (serving 3.2 million members) and currently implementation is underway in eight additional regions across the country. Outside of Kaiser Permanente, the approach is being adapted for use in other clinical settings, both in the US and abroad.

This summary will describe Kaiser Permanente's systems-model approach to delivering services for IPV, including how this approach has been implemented and evaluated. We will provide an update on Kaiser Permanente's progress over the past 10 years of the program's development and dissemination, giving special attention to what has been learned that may be of value to those who set out to implement this approach in other health care settings.

Organizational Setting: What Kaiser Permanente brings to the issue of IPV

Kaiser Permanente is one of the largest not-for-profit, integrated health care delivery systems in the United States, serving 8.7 million members in eight regions. The Kaiser Permanente workforce comprises more than 15,000 physicians and 164,000 employees.

Kaiser Permanente presents a unique opportunity for implementing IPV services and prevention because it provides the entire scope of care: outpatient, inpatient, emergency, and behavioral-health services. Kaiser Permanente has a fully implemented electronic health record, extensive experience in management of chronic conditions, a team-based approach to care, recognized research expertise, and a strong commitment to prevention and health education — all grounded in a social mission. These elements make it an ideal "laboratory" for developing and implementing new models of care and addressing complex health issues.

The Kaiser Permanente Systems-Model Approach

The systems-model approach has five components: a supportive environment, clinician Inquiry and referral, on-site IPV services, linkages to community resources, and leadership and oversight.

Figure 1 below depicts how each component is a necessary and interconnected piece of a coordinated health care response. It also lists the interventions used for each component.

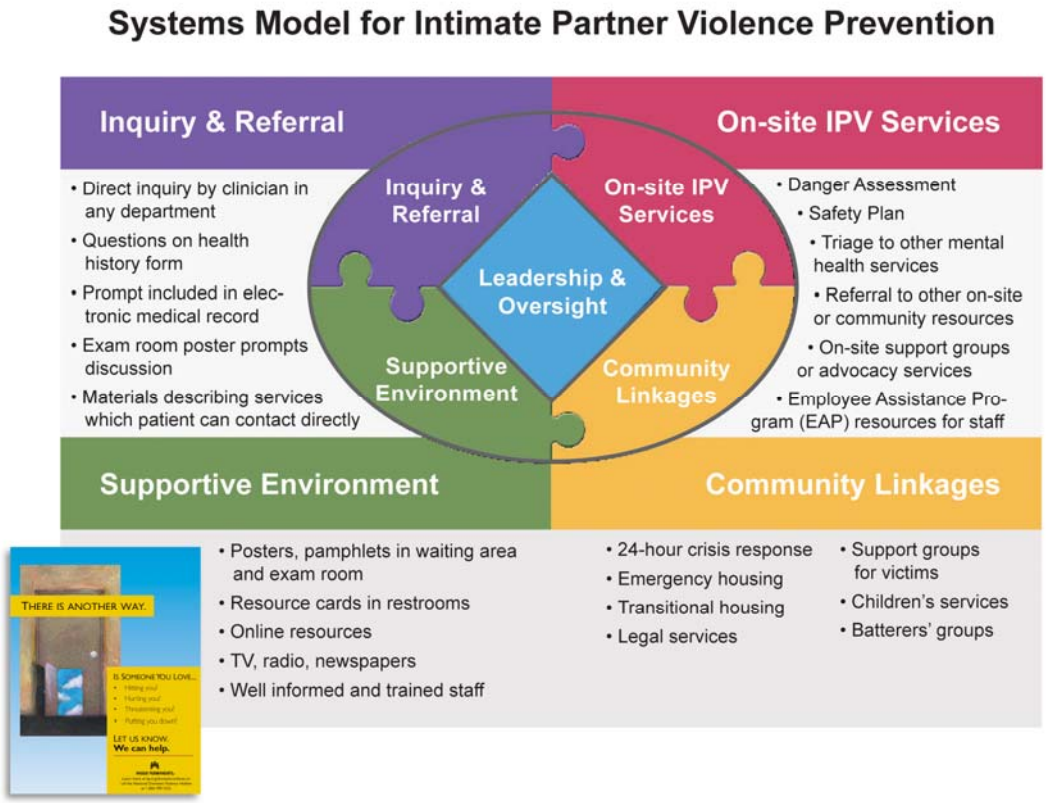

Figure 1

Testing the Systems-Model Approach: The 1998-99 Pilot

In 1998, funds were allocated to develop, implement, and test an innovative "systems-model" approach to improving IPV services in one small medical center (serving 70,000 members) in the Kaiser Permanente Northern California region. The idea was to go beyond the traditional approach of focusing primarily on didactic training of clinicians.

The systems-model approach makes use of the entire health care environment to address IPV prevention. This approach was chosen based on prior research showing the effectiveness of systems change for other clinical and safety issues. (Thompson, 1995) The effectiveness of the pilot was evaluated based on evidence of actual change in clinician practice (increased IPV identification and referral) rather than on the traditional knowledge-and-attitude survey of clinicians.

The pre- and post-implementation evaluation of the pilot demonstrated a dramatic and statistically significant increase in screening rates, identification, and referral to a mental-health clinician, and the approach was well accepted by clinicians. In addition, after the implementation, more members recalled being asked about IPV, noticed IPV information available at the facility, and reported increased satisfaction with the health plan. (McCaw, et al., 2001; Kimberg, 2007)

In recognition of its success in boosting rates of IPV identification and referral, the Kaiser Permanente program was as chosen by the American Association of Health Plans/Wyeth as the 2003 Gold winner of its HERA award, presented each year to an exemplary program that advances quality in women's and children's health care.

Disseminating the Approach to Other Kaiser Permanente Medical Centers in Northern California

Over the next two years, the model was transferred to six more Kaiser Permanente medical facilities in northern California through the guidance of a physician champion and a multi-disciplinary team in each facility. This success led to identification of an "executive sponsor" and funding for a part-time medical director and project manager to facilitate rapid and efficient implementation across all forty-nine medical facilities in the Northern California region.

The job of the physician director and project manager was to provide consultation to medical facilities, identify and spread best practices, and ensure that IPV was integrated into region-wide operations — including scripts and protocols for use by nurses in the appointment-and-advice call center, data systems for quality improvement, the electronic health record, and online and printed resources for clinicians and members.

"Tools" developed to facilitate local implementation included a description of the roles and responsibilities of the physician champion and members of the multi-disciplinary team, and a phased work plan for implementing the systems-model

approach. Patient education materials, reviewed for readability and cultural appropriateness, were designed to be easily customized with local resource information.

Currently, each Kaiser Permanente medical center in northern California has a multi-disciplinary team led by a physician champion. These teams meet regularly, implement the systems-model approach at their medical facility, provide training to clinicians and front-line staff, respond to quality-improvement data, and ensure that IPV identification and referral is part of everyday patient care. Twice a year, members of teams from every medical center come together for leadership development, sharing of innovative practices, updates on research, review of quality metrics, and development of annual goals and strategy.

Although medical-facility-based teams ensure the local implementation of the systems-model approach, the role of regional leadership and oversight is also important to make certain that activities are coordinated among medical centers, that new research data is incorporated, and that "lessons learned" and best practices are widely disseminated. The regional medical director and program director meet regularly with other leadership groups and the executive sponsor to evaluate the progress of implementation, review quality-improvement metrics, and identify opportunities to integrate with other initiatives. Sponsorship from the top is critical in sustaining the momentum of the work. An executive sponsor can increase the program's visibility, assist with goal setting, identify and procure resources, and, when necessary, participate in problem-solving. (McCaw & Kotz, 2009)

Clinician training, although it is not the primary focus of the systems-model approach, is essential. To maximize its effectiveness, training is offered in multiple ways and venues including: lectures as part of continuing medical education, brief departmental updates, case presentations, online-training tools, and reports on quality-improvement data. Clinicians are offered multiple options for incorporating IPV screening into their practices in a way that is comfortable and natural for them. Cultural considerations are incorporated into all training. (For further information, see "Intimate Partner Violence," McCaw, B., *A Provider's Handbook on Culturally Competent Care: Women's Health,* Kaiser Permanente National Diversity Council, 2009.)

Tracking Progress Using Quality-Improvement Measures

In the initial 1998 pilot project, success was measured by tracking the number of patients identified and referred by clinicians. Later, during the dissemination of the systems-model approach to other Northern California medical facilities, an opportunity arose to track progress by using already existing quality and outcome measurement systems that are based on automated diagnosis databases. In 2002, Kaiser Permanente Northern California selected "Improving IPV Prevention" to demonstrate implementation of a behavioral health prevention guideline that shows coordination between primary care and mental health to meet an NCQA standard. (For further information about the NCQA standards, see www.innovations.ahrq.gov/content.aspx?id=2343.)

The quality measures used to track progress toward "Improving IPV Prevention" are similar to those used for other health conditions, such as asthma, diabetes, hypertension, and depression. These measures provide data to monitor performance over time, between medical centers and departments, and to help teams focus their training and other improvement efforts.

The quality-improvement measures include both *qualitative* (process measures) and *quantitative* (measures based on clinical identification). The three process measures for each medical center are: a physician/nurse practitioner champion, a multi-disciplinary implementation team, and an inter-departmental referral protocol for members experiencing IPV. The quantitative measures are designed to answer three questions: How many members received the IPV diagnosis? How does this compare to the *estimated* number of Kaiser Permanente members who are *likely* to be experiencing IPV? And, of the patients diagnosed, how many received appropriate referral and follow-up?

Data collection for the quantitative measures utilizes diagnosis codes from outpatient and emergency department medical visits, which are entered into an automated database. The number of members likely to be experiencing IPV is based on a prevalence estimate of IPV (in the previous 12 months) among women health-plan members aged 18-64. This estimate is drawn from a survey of health-plan members and from published prevalence estimates. (McCaw & Kotz, 2005)

What the Data Show

The data gathered through the quality-improvement measures show that — from the program's inception in 2000 through 2010 — there was a six-fold increase in women and men newly identified with IPV. (See Figure 2 below.) These results far exceed what might have been expected based on the promising 1998 pilot test.

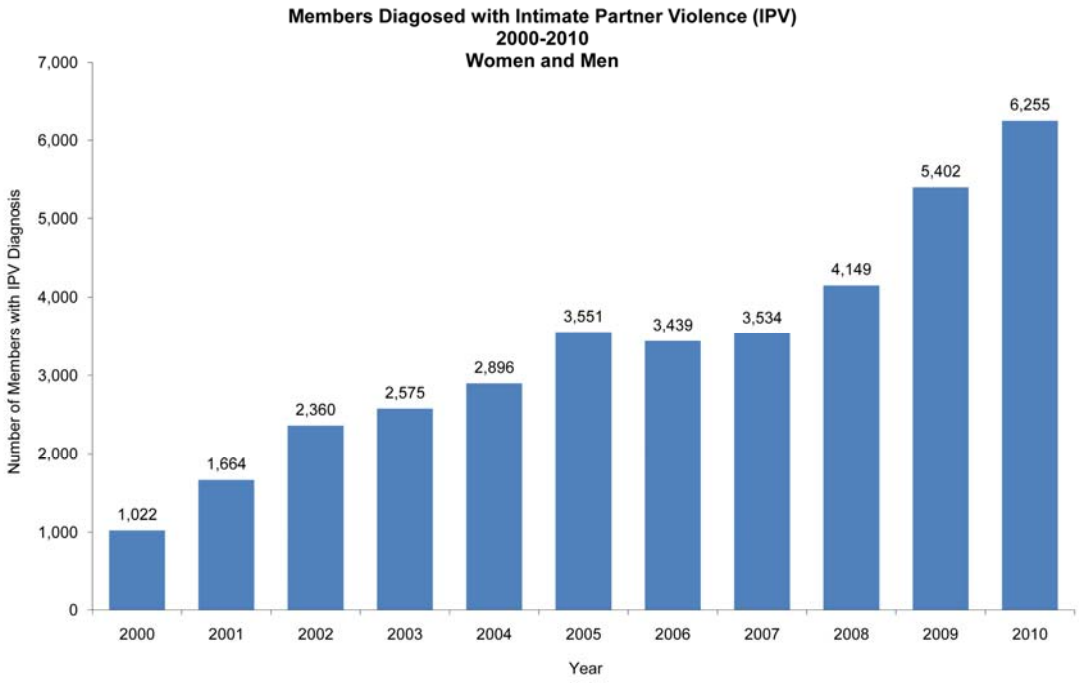

Figure 2

Figure 3 (below) shows the number of women and men newly diagnosed with IPV each year, by department. A notable trend is that Identification has steadily shifted to less acute settings, such as primary care and mental health, suggesting that patients are being identified earlier, before more potentially serious injury occurs.

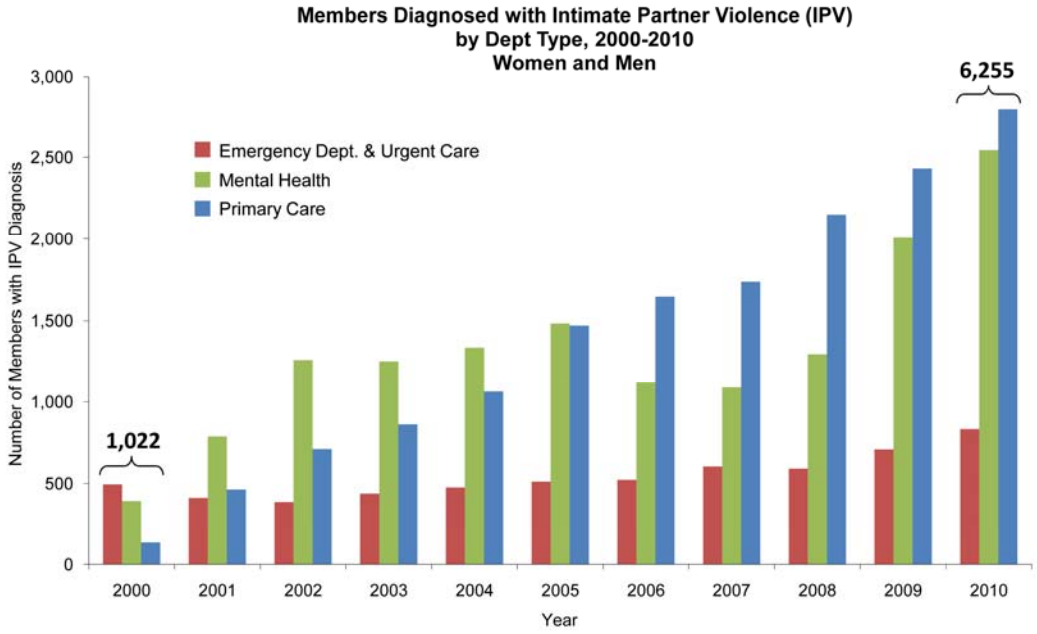

Figure 3

Although not shown in the figures above, two additional findings from the data are notable. Of members newly diagnosed, more than 50 percent received follow-up mental-health services. And, the IPV-identification *rate* increased every year — that is, of the total number of Kaiser Permanente women members *estimated* to be experiencing IPV, an increasingly greater proportion were being identified.

Additional Learnings from implementation

The Role of Technology: Over the 10-year implementation, "technology enablers" have proven invaluable. For example, clinicians can draw on tools embedded in the Kaiser Permanente electronic health record to facilitate documentation of IPV, make referrals, and learn about best practices. Clinicians can also access point-of-care patient handouts about IPV, and direct patients to Internet resources in both text and video formats. Online video training allows clinicians to view demonstrations of how to provide caring, effective, and efficient interventions.

IPV services have also been incorporated into Kaiser Permanente's appointment-and-advice call center. Use of this service has increased dramatically over past 10 years. Advice nurses, trained in how to inquire about IPV, and equipped with IPV-related scripts and protocols, can respond immediately to members who contact the

health care system by phone, directing them to the appropriate Kaiser Permanente venue of care as well as to community resource information.

Engaging the Kaiser Permanente workforce: The demographics of most health care workforces (made up in large part by women of childbearing age) means that IPV is, unfortunately, a common issue for many employees and their families. While initial implementation of the systems-model approach focused on providing resources and information to health-plan *members*, it quickly became clear that the Kaiser Permanente workforce was another key "audience" who needed information about resources available to them in the workplace. Over time, an additional benefit of this workplace outreach emerged: Employees who had learned about IPV became an essential aspect of the "supportive environment" provided for members.

One example of an innovative approach to reaching employees is the "Silent Witness Display" — a large exhibit that presents the real-life stories of Kaiser Permanente physicians, medical staff, and employees who have dealt with IPV. These stories of courage, hope, and survival reflect the diversity of the Kaiser Permanente workforce in age, career type, and ethnic background. The exhibit travels to every Kaiser Permanente medical facility, and is regarded as a powerful tool for increasing awareness of IPV, its impact on employees and their families, and the resources available to both employees and members. To read the stories and see the display go to:http://www.kp.org/domesticviolence/silentwitness/index.html

Research collaborations: From the very beginning, clinician-researcher partnerships have been invaluable. The well-designed evaluation of the pilot program yielded findings that were both clinically meaningful and operationally useful. These findings helped to make the case for dissemination to other medical centers, justify the allocation of regional resources, and secure "buy-in" from front-line clinicians. The evaluation also generated additional information on women who experience IPV, including demographics, perceived health status, and reasons for accepting referral for follow-up. (McCaw et al., 2002; McCaw et al., 2007)

Over the past decade, engagement with other Kaiser Permanente researchers has led to inclusion of IPV as a risk factor in studies of diabetes and self-care, breast-cancer survivorship, incontinence, contraceptive use, and chronic pain. IPV has also been included in studies that have implications for improving health care delivery — such as the impact of electronic referral on mental-health utilization, and predictive modeling using regional call-center data.(Ahmed & McCaw, 2010; Bhargava et al., 2011). A study is now underway to compare healthcare utilization

by IPV women who *receive* an intervention in the health care setting to those who do *not* receive an intervention.

Challenges of community linkages: In contrast to other potentially life-threatening health conditions (for example, heart attack), victims of IPV may need life-saving interventions (such as emergency shelter and a restraining order) which are more appropriately provided outside the health care setting, and which require the expertise of community advocates, law enforcement, and criminal justice. Thus, the development of strong partnerships between health care and community resources is a key element of the systems-model approach.

However, the development of community partnerships is often challenging because of the differing perspectives of health care providers and the staff of community agencies. Health care providers tend to view the medical center as a self-contained entity and may not know how — or why — to engage community partners in their work. For them, reaching out beyond the walls of the facility often requires a fundamental shift in thinking.

On the other hand, staff at community agencies may not be familiar with the "language" of health care — its quality-improvement metrics, organizational hierarchy, and clinic workflow. These contrasting perspectives grow out of differences in training, background, expectations, pressures, funding sources, and staff turnover. The result is that health care facilities vary widely in how well community partners are included in the planning and implementation of the systems-model approach.

Dissemination to Other Kaiser Permanente Regions: Scaling-up and sustainability

Over the past five years, the remaining eight Kaiser Permanente regions have embarked on implementing the systems-model approach. This scaling-up of the program was inspired by its successful adoption in the Kaiser Permanente medical facilities in Northern California, and also by the compelling data showing improvement in IPV identification and referral (described above). Each of the eight regions has designated a physician champion and formed a multi-disciplinary team.

Although each region exercises some degree of autonomy in its implementation, an effort has been made to maintain consistency across regions. All regions have adopted the implementation tools developed for Northern California — for example, the phased "work plan" — and are using them successfully. All have adopted a single

set of member-education materials that can be customized to each region. All are offering resources to their Kaiser Permanente workforce, including online manager training and the "Silent Witness Display" (described above). In addition, a set of IPV "SmartTools" has been added to the program-wide electronic health information system to facilitate identification, evaluation, documentation, referral, and the provision of resource information and safety planning for members.

Quarterly conference calls among the regions' leadership also help to maintain consistency by providing an opportunity for regions to share best practices, learn about new research, leverage resources, explore inter-regional initiatives, and set common goals.

In the course of the dissemination throughout Kaiser Permanente, it has become clear that to be sustainable, the IPV prevention services must be closely aligned with other Kaiser Permanente priorities: ensuring member safety, improving coordination of care, increasing efficiency, enhancing service, and reducing health care disparities. Most importantly, IPV prevention services must be incorporated into the everyday care of members.

To the extent that IPV prevention can be aligned with these larger goals, CEO's will come to see the program as an imperative and a positive investment. This top-level support is evident in comments made at a 2007 CEO Roundtable by Robert Pearl, MD, Executive Director and CEO of The Permanente Medical Group: "IPV Prevention is part of a strategic approach to quality, service, and affordability. By doing the right thing, we can improve quality outcomes, member satisfaction, and the personal lives of our patients, while also decreasing costs to employers and individuals."

Beyond Kaiser Permanente: Opportunities for adoption of the systems-model approach in other settings

In response to inquiries from other health care delivery organizations in the US and abroad about how to implement the systems-model approach, information and tools have been made available at AHRQ Innovations Exchange, and on the United Nations website for Ending Violence Against Women and Girls (UNIFEM) at www.endvawnow.org. To facilitate implementation at facilities outside of Kaiser Permanente, it has been important to develop tools that are general enough to be easily adapted to new sites.

As the systems-model approach has been adopted by other sites, the implementation has been tailored to address a range of cultural issues including: age (messaging focused on teens); ethnicity (attention to differences in values and communication style); language (translations of the member education materials); sexual preference (gender neutral), and religion (inclusion of faith communities in community partnerships).

It is particularly exciting to see how the systems-model approach is being adapted in other countries. In the community clinics in Bangalore, India, where the approach is being used to improve the response to gender-based violence, the intervention also reaches out to the mothers-in-law of women identified as victims of violence. And, in lieu of the "on-site" services used in the Kaiser Permanente facilities, the clinics' community outreach workers are trained to offer IPV information and counseling as part of their routine home visits. Such cross-cultural adaptations of the systems-model approach open exciting opportunities for a bilateral exchange of learning.

The Way Forward

The list below highlights key "lessons learned" that have emerged from the 12-year evolution of the Kaiser Permanente systems-model approach to improving services to members experiencing intimate partner violence. It is hoped that these lessons will be of use to other health care delivery systems as they set out to implement, disseminate, and sustain programs to improve their response to intimate partner violence.

- Use a consistent approach based on systems-model thinking.
    - Select a clear conceptual model that is comprehensive and readily customized to available resources (for example figure 1).
    - Implement the approach with local physician/nurse practitioner champions and multi-disciplinary teams.
    - Provide organizational leadership to ensure consistency of services, alignment with other health initiatives, and dissemination of innovative practices.
- Identify qualitative and quantitative measures to ensure continuous quality improvement.
- Take advantage of "technology enablers" to improve services.
- Engage the health care workforce as a partner.
- Establish clinician-researcher partnerships to ensure a robust design for both the program and its evaluation, and to ensure that evaluation will yield credible findings that are clinically and operationally meaningful.

Summary

Over the next decade, health care organizations will be called upon to assume an increasingly important role in society's response to intimate partner violence and other forms of family violence — through primary prevention, early identification, and effective interventions.

Over its 12-year evolution, the Kaiser Permanente systems-model approach has achieved a six-fold increase in the identification and referral of members experiencing intimate partner violence, and has been successfully replicated throughout this large health care organization. Examples such as the Kaiser Permanente approach — that demonstrate measurable results, and that can be easily adapted for other settings — are essential to propel the field forward.

Acknowledgments

Program implementation and dissemination: Krista Kotz, PhD, MPH, Program Director, Family Violence Prevention Program, Kaiser Permanente, Northern California. Violeta Rabrenovich, MHA, CHIE, Director, Medical Group Performance Improvement, The Permanente Federation, LLC.

Executive sponsorship: Donald Dyson, MD, Associate Executive Director, The Permanente Medical Group. Amy Compton-Phillips, MD, Associate Executive Director - Quality, The Permanente Federation, LLC. Jed Weissberg MD, Senior Vice President Care Delivery Excellence, Kaiser Foundation Health Plan and Hospitals, Kaiser Permanente.

Research partnerships: Division of Research, Kaiser Permanente Northern California: Enid Hunkeler MA. Ameena Ahmed MD, MPH. Nancy Gordon, PhD. Leonard Syme PhD, Professor Emeritus, School of Public Health, UC Berkeley.

Writing assistance: Meg Holmberg, MSW

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