

Presentation of the Wagner Chronic Care Model Evaluation

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Good afternoon. I'd like to thank Chairman Pan, Vice Chairman Logue, and the committee members for inviting me to speak today. I've been asked to explain what the Wagner Chronic Care Model is and how it is implemented in healthcare organizations through collaborative and coaching efforts. I will also explain how an automated telephone call system based on the Chronic Care Model can improve patient-provider communications and care management for high-risk, high-cost patients.

In California, most safety-net providers—including public hospitals, their extensive primary care clinic network, and non-profit community health centers—face a grand challenge. That challenge is to use their constrained resources to provide high quality care to an increasing number of uninsured and underinsured patients, the majority of whom have one or more chronic conditions. What we often found across the US are rushed practitioners not following established practice guidelines, lack of care coordination, lack of active follow-up to ensure the best outcomes, and patients inadequately trained to manage their illnesses. Thus, Dr. Ed Wagner and his team in the MacColl Institute in Seattle developed the Chronic Care Model in the 1990s to improve quality of chronic illness care. Working with a small group of healthcare organizations, Dr. Wagner demonstrated that the model was a feasible and useful guide to redesign

clinical practice from an acute care based approach to one that is organized for patients with chronic illnesses. In brief, the model recommends changes of healthcare practices in six areas.

1. Alter the delivery system design to include team-based care and proactive care planning, management, coordination, and follow-up.
2. Focus on patient self-management support, including patient education, empowerment, and support for their psychological and social needs.
3. Establish provider decision support to include evidence-based care guidelines, protocols, and expert consultation.
4. Integrate critical clinical information, such as diagnosis, treatments, lab results, and visit information, in a patient registry to help providers make informed decision and track patient progress.
5. Link patients with community resources, such as transportation and financial assistance, to broaden support for patients. Also, provide health education and programs to improve the community environment that affects patient health.
6. Develop organizational policy and provide support to realize and sustain this chronic care approach.

By making these changes, the model aims for providers to practice as a team and be better prepared to care for and manage patients' chronic conditions. These changes will also help patients take a more active role in managing their illnesses. Taken as a whole, patients' health outcomes will improve and the cost of care will decline.

The RAND and UC Berkeley Improving Chronic Illness Care Evaluation assessed 54 healthcare organizations across the United States that participated in three chronic care improvement collaboratives, which were created to improve care for one of four common chronic conditions: diabetes, congestive heart failure, asthma, and depression. Each collaborative was attended by healthcare providers from 20 to 40 healthcare organizations. They met four times over a one year period to learn about the Chronic Care Model and tested the changes described by the model using a Plan-Do-Study-Act rapid cycle change method. That means, they will plan an improvement idea, test it with a small number of patients, study how it works, and decide to continue, change, or stop the idea in a couple of months period. We found that, dependent on the implementation, the collaborative participants improved providers' effectiveness and motivation to care for chronic illnesses, and improved patient knowledge and self-care behaviors. However, publicly funded organizations significantly implemented fewer recommendations because they had less resources and more complicated patients.

A few important observations emerged from the collaborative experience:

1. First, participating teams spent considerable time and effort searching for or developing their own tools for chronic illness care, such as a shared care plan.
2. Second, some teams felt intimidated by taking on the whole model and asked for a sequence, such as changing delivery system first, or building a clinical information system first.

3. Third, many changes inspired by collaborative participation were made in ways that were clearly not going to be sustainable, such as manual entry of information on patient visits, lab results, and treatment into a registry.
4. Fourth, collaboratives can be expensive, which often limits their availability. Even when available, only a few individuals from a certain site can participate, which may impede the ability to reach critical mass and, thus, transform the clinic.

To address these barriers and challenges, I led a project, in collaboration with Dr. Ed Wagner, to develop a comprehensive toolkit containing guidance and tools for implementing the Chronic Care Model. I also authored a companion coaching manual that described a low-intensity, time-limited coaching model to provide implementation support. The toolkit and the coaching approach were tested in Santa Clara Valley Health and Hospital Systems and in San Mateo Medical Center. These ideas would directly test whether the sequence model and the toolkit that teams asked for would work in the real world.

The nine outpatient practices in the two hospital systems that received the toolkit and coaching intervention tested more than 50 ideas. These included using an action plan to empower patients to follow through on their visits and use their medicine, sending them letters to remind them of an upcoming appointment, and generating reports from the patient registry to see how the patients are doing. We also found that the 600 page toolkit itself was used minimally due to its size, and the clinicians' lack of time. Coaching, in

contrary, was perceived favorably. The coaching costs approximately \$41,000 per clinic per year. Patients' emergency visits and hospitalizations were significantly reduced in the intervention group compared to the control group in the same clinics.

From these experiences, I learned that the healthcare providers are interested in engaging in team practice for population-based care management and in using a patient registry to identify and help at-risk patients improve self-management of their chronic diseases. One challenge for the providers is that oftentimes chronically ill patients are also suffering from depression but the providers lack the resources to screen for depression and monitor the depressed patients. Depression is a significant societal challenge because it worsens health status and outcomes, impairs productivity, increases healthcare and employer costs, and elevates risk of suicides.

Thus, I am currently conducting a subsequent study with the Los Angeles County Department of Health Services, led by Dr. Katz, who will be speaking later today. In Los Angeles County, of the approximately 200,000 diabetes patients cared for by the County, about 30% have depression. My study used an automated phone call system for depression screening and monitoring, and generated automatic reminders to inform providers to follow-up with patients in need of attention. 1400 of the county's diabetes patients are currently participating in the study. 1/3 of them, who are high risk and high cost patients, received a periodic phone call to monitor their levels of depression, check their adherence to treatments, and identify whether they need to reach a healthcare provider. These calls allowed patients to choose their preferred language and call time.

The call results are integrated into the county's advanced disease management registry. This registry tells a provider if a patient needs follow up because they have persistent depressive symptoms despite of treatment, or poor adherence to treatment. Patients with suicidal thoughts are identified by the phone system and the system will automatically inform a psychiatrist within 15 minutes to contact and counsel the patient. The results are encouraging; patients who received the phone calls are less likely to have depression, and take better care of their diabetes symptoms. The cost of this program is about \$1.30 dper patient per year.

I have three recommendations for government funded healthcare organizations to deliver outcomes in medical homes. The first recommendation is that all healthcare organizations should use the Chronic Care Model so patients receive coordinated and planned care that help them take better care of themselves. My second recommendation is to have the California's Primary Care Offices, located within the Healthcare Workforce Development Division (HWDD) of the Office of Statewide Health Planning and Development (OSHPD), to provide coaching supports to publicly funded primary care clinics to help them learn and practice the Chronic Care Model. The third recommendation is to apply the automated telephone monitoring system in medical homes to periodically screen and monitor patients for depression. One clinician who is in my current study in Los Angeles County told me the system helps her identify those patients at high risk for depression, monitors her patient population, and reminds her to provide care at the right time. I believe these three recommendations will help our state deliver better patient health and lower healthcare costs.