2016 Community Health Leadership Award – Nomination

Nominator Name:	Russ Myers, CEO, Yakima Valley Memorial Hospital
Organization Being Nominated:	Yakima Valley Memorial Hospital
Name of Program:	Diabetes Wellness Initiative for Central Washington
Program Contact:	Bertha Lopez, Senior Director, Community Health

Program Description:

As central Washington's largest nonprofit community and disproportionate share hospital, Yakima Valley Memorial Hospital's Diabetes Wellness Initiative uses health education as the foundation for preventing, controlling and understanding diabetes self-management. The hospital's program is recognized by the American Diabetes Association (ADA) for "excellence in education" and provides a range of classes, support groups, nutritional counseling, and quarterly community diabetes screening events each year. Memorial is committed to helping those with pre-diabetes and diabetes gain the skills and confidence needed to successfully manage their disease. The curriculum focus is on self-efficacy, behavior modification and lifestyle change, as well as providing participants with the tools and skills they need to be in control of their disease.

Memorial Hospital offers comprehensive community education opportunities on many medical challenges including diabetes, chronic disease self-management, and obesity that are free of cost to participants or have a nominal fee. Memorial has experienced great success and proven results with its evidence-based diabetes programs, and our goal is to provide integration of services, coordination between medical providers, community prevention and intervention, and continuity of programs and services on a community wide scale. Memorial offers a two-part approach to diabetes: one for prevention and one for management. In 2013, the hospital implemented the national Diabetes Prevention Program curriculum offered by the CDC (Centers for Disease Control & Prevention) and the International Diabetes Center Management Program curriculum, as well as nutritional counseling and foot and nail care at its Diabetes Wellness Center. All programs and services are offered in both English and Spanish.

The Diabetes Prevention Program (DPP), developed by the CDC, is a 12 month evidence-based program for adults with pre-diabetes (either diagnosed or with a family history of diabetes or gestational diabetes). Participants work with a lifestyle coach and meet one hour weekly for 16 weeks, and monthly after that to learn strategies for incorporating physical activity into daily life, eating nutritious foods, eating the right portion sizes, reading food labels, and identifying emotions and situations that can sabotage their success. Each week they are weighed and keep a food and exercise journal throughout the program. One educator who is trained in the curriculum facilitates the program with between 5 to 18 participants. Classes are not covered by insurance. The program creates clinical-community linkages that address social determinants of health such as health behaviors (diet and exercise), health education (reading food labels, portion sizes, good health choices when eating out), and social factors (the importance of family and social support when making good health choices). Pre-diabetics who follow this evidence-based curriculum are able to reverse the effects of pre-diabetes and prevent the development of diabetes altogether. On average, 58% of individuals who attend the Diabetes

Prevention Program reduce their risk of getting type 2 diabetes. As of the end of 2015, the DPP is serving 345 participants annually.

The DPP is easily replicable and scalable as it is flexible enough to tailor to a specific community or population. Costs include a $1,000 licensing fee, training for facilitators/educators, educator instruction time, minimal cost booklets, and a class site location. A physician does not need to refer the patient, there is no cost to the participant for the class, and retention is high. One educator can facilitate the program and does not need a special degree, only curriculum training. There are no restrictions on how many participants may attend, but the guideline is 5 to 18 participants per class.

The Diabetes Management Program (DMP) is a 6 month evidence-based program developed by the Park Nicollet International Diabetes Center for adult diabetics and/or their support person (spouse, family member or caregiver). Participants meet for four sessions that are each two to two and a half hours in length to learn how to monitor glucose and insulin, and receive counseling on the importance of exercise, nutrition, carbohydrate counting, reading food labels, and food portion sizes. Participants' weight and Body Mass Index are measured pre- and post-intervention, and a test is given three times in order to document diabetes knowledge retention: before class (tells what they know), after class (tells what they learned), and two to three weeks after class (tells what they retained). Two curriculum-trained educators, who must be registered nurses or dietitians who are also certified diabetes educators, teach the class. Some insurance does not cover the program and Medicare covers nine hours of group diabetic education the first year, then two hours each year after that. This program creates clinical-community linkages that address social determinants of health such as health behaviors (diet and exercise), health education (insulin use, glucose monitoring, importance of exercise and carbohydrate counting, reading food labels, portion sizes, good health choices when eating out), social factors (the importance of family and social support when diabetic and making good health choices). As of the end of 2015, the Diabetes Management Program is serving 528 participants annually.

The DMP is replicable and scalable. Costs associated with the program include training for facilitators/educators, facilitator/educator time, manuals and binders for participants, class site location, and support staff cost for billing insurance. A physician referral is needed for insurance to cover, and is important for follow-up care. There are no restrictions on how many participants may attend, but the guideline is two facilitators if the class is large. Some individuals will not register for the class if their insurance will not cover it which creates access issues because some participants cannot afford the training, and Memorial cannot offer the class at no cost due to Medicaid rules.

In addition to its structured classes, Memorial offers quarterly diabetes screening events that reach approximately 750 individuals each year. Screenings occur in community settings such as community centers, churches and grocery stores in different parts of town, and in the heart of the Latino community where people regularly congregate. Screenings are for individuals with risk factors, and also benefit diabetics who may not have a family physician due to lack of medical coverage. Diabetes support groups also meet twice each month where the hospital offers foot and vision checks, and all diabetic patients are offered the support of a registered dietitian to provide medical nutrition therapy for personalized meal planning and one-on-one support. Memorial's in-patient diabetes program uses a Certified Diabetes Educator who is on the hospital floors to provide diabetes education to approximately 150-160 in-patients each month (over 1,900 annually) in order to reduce costly hospital readmissions for diabetics. Pre-diabetes and diabetes program participants are also encouraged to attend Memorial's

"Healthy for Life" drop-in community fitness program where exercise activities such as yoga, Zumba, fitness boot camps, community bike rides and walks, healthy cooking demonstrations, and grocery store tours are available at no cost to all parents, children, and families at many different locations in the community two to three times each week.

In total, Memorial Hospital's inpatient and outpatient Diabetes Wellness Initiative is now used by, made available to, and has affected more than 9,000 individuals each year. We currently have 27 trained community diabetes lifestyle coaches, and two staff train-the-trainers to assist in capacity building. Through both formal coordinated care provider networks and extensive grassroots outreach, Memorial is well equipped to integrate the broader community into the diabetes program. A focus on prevention, education, care management, screening, nutrition, exercise, and behavioral health coaching will bridge significant gaps in health disparities for people who may not otherwise have cohesive, informed support networks.

Population Served:

Nearly 26 million Americans have diabetes and at least 79 million have pre-diabetes. Each year, 11% of individuals with pre-diabetes who make no lifestyle changes will progress to type 2 diabetes, which is associated with obesity and physical inactivity, within 3 years. Nearly 50% of seniors are at risk for developing type 2 diabetes. Yakima County has higher rates of diabetes compared to the state average (9% vs 7%); 1 in 3 adults has pre-diabetes and 1 in 11 adults has diabetes. The county also has higher rates of obesity (a leading indicator for diabetes) and the county's large Hispanic population (48%) is significant since Hispanic Americans have the second highest obesity prevalence among adults. Yakima County's obesity rate is 32% compared to 27% statewide and 25% nationally, and in April 2014, Yakima was identified as the 4th fattest city in the U.S. with 1 in 3 adolescents overweight or obese. Yakima County has higher rates of adult inadequate physical activity, inadequate food consumption, and food insecurity than the state. Yakima County (population 248,830) is unique among counties in the state: it has the highest number of Hispanic (48% and up to 79% in outlying rural areas), Native American (6%), less educated, limited English proficient, non-citizen, unemployed, migrant/seasonal farmworker, uninsured/underinsured, Medicaid-insured, and below poverty residents in Washington State. Yakima County ranks 37 out of 39 counties in the state for health outcomes and health factors, is designated as a Health Professional Shortage Area for primary care, and is designated as a Medically Underserved Area. Significant social and economic disparities exist between Yakima County and the rest of the state. The median household income of $43,956 is only 73% of the state's median income and Yakima County has the highest poverty rate in the state (23% vs 13%). It is important to note that within the demographics for Yakima County, the Lower Yakima Valley areas face more significant extremes in poverty than the Upper Yakima Valley. For example, the population in the rural community of Sunnyside is 82% Hispanic and the median income is $34,761.

Yakima County's population has the highest percentage of Hispanics in the state, and according to the CDC, Hispanics are more than twice as likely to develop diabetes compared to whites, and are 50% more likely to die from diabetes than the general population. Many Hispanics are separated culturally, linguistically and geographically which creates enormous barriers to healthcare, and are also isolated due to low literacy levels and little knowledge of the healthcare system. Native American tribal communities face many of these same barriers. In addition to the lack of insurance coverage, challenges

such as language barriers, transportation, work schedules, child care, mistrust of government systems, and specific cultural norms serve to dissuade Hispanics from seeking preventive healthcare. Low-income Americans and racial and ethnic minorities experience disproportionately higher rates of disease and fewer treatment options. Memorial recognizes these disparities and is dedicated to ensuring that all residents have access to high-quality diagnostics and medical treatments regardless of income or insurance status. The hospital is a tremendous community resource for low-income groups who have been marginalized, culturally isolated and traditionally underserved, and provides culturally appropriate health education and screening programs in both English and Spanish to address the unique needs of this population.

Goal and measure of success:

2015 Diabetes Prevention Program:

- 66% of participants lost 5% or more of their body weight
- Average weight loss per participant (16 week mark) = 16.9 pounds
- Total weight lost in the DPP program = 3,473 pounds (8,018 pounds since 2013)
- 82% of participants kept a food journal
- 42% of participants exercised 1 – 3 hours per week
- 42% of participants exercised more than 3 hours per week
- 38% somewhat confident and 58% totally confident that they know how to prevent themselves from getting type 2 diabetes
- 55% of participants ate 3–5 servings of fruits/vegetables per day and 17% at 6–8 servings/day
- 21% of participants have been able to stop taking medications
- Research shows that 58% of adults who participate in the program will not develop
- type 2 diabetes – this is a prevention strategy

2015 Diabetes Management Program:

- Average drop in A1c per participant (N=104) was 1.099%
- Mean Arterial Pressure drop per participant (N=130) was 2.442%
- 76% currently count carbohydrates at meals
- 24% somewhat confident and 52% very confident that they can read a food label
- 38% somewhat confident and 21% very confident that they can manage their diabetes
- 35% somewhat confident and 24% very confident that they know what to do when their blood sugar level is high
- 86% very confident in using their meter to test their blood sugar
- 18% of participants have been able to stop or reduce diabetes medications

2015 Overall Success:

- We've had great success in physician referrals by embedding the programs in the electronic medical record (over 800 referrals in 2015)
- Improved control and management of disease
- Decrease in medication use through lifestyle change

- Decrease in hospital readmissions for diabetes patients (in July 2013, 15% of diabetes patients were readmitted to the hospital and by June 2014, only 3% of diabetes patients were readmitted)

How did the nominee identify the community's health need, for example, did you use the community health needs assessment?

Memorial Hospital conducted a community health needs assessment in 2013 and in 2015 and data revealed that Yakima County has higher rates of diabetes and obesity compared to the state average: 1 in 3 adults has pre-diabetes and 1 in 11 adults has diabetes. Diagnosis numbers in Memorial's physician clinics corroborated these numbers and also indicated a high number of gestational diabetes. In 2013, there were 2,748 diabetic patients in Memorial Physician outpatient clinics and 2,704 diabetic inpatients at Memorial Hospital. However, only 7% of our diabetic patients received diabetes education and Memorial realized it was not doing enough screening and education around lifestyle changes. In addition, the hospital realized that although a medical diagnosis confirms the presence of type 1 or type 2 diabetes, which can be successfully managed with medication and lifestyle changes, we also needed to reach those in our community who are pre-diabetic or who have risk factors for diabetes, in order to prevent or delay the onset of diabetes.

Describe how community partners were involved:

Program curriculum partners include the CDC (Centers for Disease Control & Prevention) and the Park Nicollet International Diabetes Center. In addition to Yakima Valley Memorial Hospital and its Family of Services, program referrals come from SignalHealth (an Accountable Care Organization), the Yakima Health District, Aging & Long-Term Care, and three local FQHCs (Federally Qualified Health Centers): Community Health of Central Washington, Yakima Neighborhood Health Services, and Yakima Valley Farm Workers Clinic. Memorial Hospital subsidizes what insurance does not cover and The Memorial Foundation offers scholarships to uninsured/underinsured program participants. Over the last three years, we have received: two grants from the Attorney General of WA State totaling $209,565; a grant from the WalMart Foundation in the amount of $66,826; three grants from Kohl's Cares Hospital Partnership totaling $65,760; and the Yakima YMCA provides discounted fitness memberships to program participants.

In 2014, Memorial Hospital started a "Healthy for Life" drop-in community fitness program that offers free exercise activities such as yoga, Zumba, fitness boot camps, organized community bike rides and walks, as well as healthy cooking demonstrations and grocery store tours that are available to all parents, children, and families at many different locations in the community two to three times each week. "Healthy for Life" partners include Yakima Yoga Collective, Rock Solid Fitness, Yakima Greenway, and WalMart.

Additionally, in December 2013, Memorial Hospital initiated a collaborative effort with Heritage University and other community sector representatives in order to form a nine county Accountable Community of Health (ACH) which is based on guidelines from the State Health Care Authority and aligns with the Washington State Health Care Innovation Plan. The mission of the Greater Columbia ACH is to advance the health of our population by decreasing health disparities, improving efficiency of health care delivery, and empowering individuals and communities through collaboration, innovation, and engagement. The ACH forum brings together leaders from many different community sectors (health,

behavioral health, social services, education, housing, business, tribal, local and state government, and philanthropy) in order to solve the most pressing social determinants of health that affect our community's well-being. Diabetes is one of the specific work groups within the ACH.

Was the Board of Trustees or the Board of Commissioners involved in the program?

No

Did you use data in benchmarking and goal setting? If you didn't use data, how did you evaluate effectiveness? Please describe.

The CDC sets benchmarks for the Diabetes Prevention Program which are:

- 49.7% of participants should have a 5% - 7% reduction in body weight
- Average weight loss of 14.5 pounds per participant
- 74.4% of participants increase physical activity to at least 150 minutes per week
- Average of 224 minutes per week of physical activity per participant
- Participants reduce their A1c by 1%
- Participants reduce their blood pressure
- Participants increase fruit/vegetable consumption

The International Diabetes Center Management Program monitors and tracks:

- Participants who reduce their A1c by 1%
- Participants who reduce their blood pressure
- Percent of participants who count carbohydrates
- Percent of participants who monitor their blood sugar
- Percent of participants who can read and understand a food label
- Percent of participants who experience hypoglycemia
- Percent of participants who are confident they can manage their diabetes
- Percent of participants who reduce or stop medications

How did this project help to advance the cause of Equity of Care in Washington State?

Memorial Hospital is the only agency offering multi-lingual pre-diabetic and diabetic evidence-based education programs in Yakima County. All programs are offered in English and Spanish, classes are taught by native Spanish speakers, Memorial performs a Culturally and Linguistically Appropriate Services (CLAS) Assessment every two years, and staff regularly participate in cultural competency training. Bertha Lily Gonzalez, MD (Mexico), is Memorial Hospital's Latino Health Education & Outreach Coordinator, and has worked as a diabetes educator for the past 14 years. Dr. Gonzalez is an immigrant physician and permanent resident from Mexico who is assisted by other nurses and community educators, many of whom emigrated from other Spanish speaking Latino countries, and thus can directly mentor participants who are struggling to learn a new culture, language, lifestyle and diet. Certified through Stanford University to teach Stanford's evidence-based Spanish Chronic Disease Self-Management Program, Dr. Gonzalez was the first bilingual master trainer in Washington State.

Memorial's evidence-based diabetes programs align with the Washington State Healthcare Innovation Plan strategy of improving chronic illness care through better integration of care and social support, adoption of Chronic Care Models, active engagement of individuals and families in their health and healthcare, and closing the gap between prevention and primary care. Self-efficacy is at the core of these programs: people are given the skills and tools to control, manage and prevent their disease. Self-efficacy is the degree of belief people have that they can control their behavior, which is critical to the success of these programs in achieving health equity and improved community health. A focus on prevention, education, care management, screening, nutrition, exercise, and behavioral health coaching offered in a culturally competent manner with regard to race, ethnicity and language preference, will bridge significant gaps in health disparities for people who may not otherwise have cohesive, informed support networks.

What results are you seeing? What difference has this program made in the community?

Memorial has seen a reduction in emergency department visits and hospital readmissions due to complications from diabetes, a decrease in hospital visits for preventable complications, and improved patient outcomes. Patients are learning skills to identify critical issues before they become life changing problems such as amputations or blindness. Memorial has seen an increase in primary care visits and physician follow-up among pre-diabetics and diabetics who have participated in the diabetes wellness education programs, because the referral process is embedded in our electronic medical record. Memorial's Diabetes Wellness Initiative has already developed a proven track record of:

- Preventing the development of type 2 diabetes
- Delaying the development of type 2 diabetes
- Improving medical control of individuals diagnosed with type 2 diabetes
- Increasing the number of individuals served through community outreach and marketing

As of February 2015, medical students from Pacific NW University of Health Sciences in Yakima now go through Memorial's Diabetes Prevention Program and Cardiovascular Patient Education Program as part of their curriculum. This will bring much needed awareness and education to future physicians about the prevalence of diabetes and the importance of early intervention.

Has this program been awarded or recognized by others?

The Washington State Public Health Association did a poster presentation on Memorial's diabetes education results on October 3, 2015.

In the December 2013 issue of its "Spotlight on Improvement" publication, The Washington Health Alliance highlighted Memorial's chronic disease self-management program which includes 30% of program participants who have diabetes.

Who else was involved in making this successful?

Memorial Hospital conducts routine community screenings and public education events year round at local churches, community centers, senior centers, and grocery stores where people normally congregate. Memorial's success with its Spanish Chronic Disease Self-Management Program has been strengthened by aggressive marketing conducted by Spanish media outlets and grassroots connections in the Latino community. The hospital provides targeted, culturally appropriate outreach, chronic care

management, and health literacy education in English and Spanish, and Spanish radio station KDNA works with Memorial to reach over 30,000 Hispanic residents each year through a weekly, one hour radio program entitled “Salud en sus Manos” (“Health is in Your Hands”). Memorial also consistently markets its diabetes, chronic disease, childhood obesity, and fitness programs through regular television, print, radio, and social media outlets.

Anything else you want to add about this program?

Diabetes alone costs the nation $245 billion dollars a year. According to a Washington State Health Care Authority 2015 report, diabetes in Washington State led to direct medical costs of $3.75 billion in 2012 and this figure is expected to balloon to $5.39 billion (in 2012 dollars) in 10 years. The percent of adults with diabetes has nearly doubled in Washington since the early 1990s and nearly 95% of all diabetes cases are type 2. A 10-year cost-effectiveness study done in 2000 by the American Diabetes Association estimates that total per capita healthcare expenditures for people with diabetes are $11,744 per year, of which $6,649 is attributed directly to diabetes, but the direct medical cost of care for a man with diet-controlled type 2 diabetes is approximately $1,700 (a 75% reduction). Memorial’s diabetes management program addresses economic opportunity through prevention efforts, which have been shown to save healthcare related costs and provide the greatest benefit per dollar spent. Management and prevention programs are a win-win, because they improve health and quality of life while reducing long-term healthcare spending. Memorial’s Community Health Department offers evidence-based strategies that increase patient self-efficacy to prevent and delay the development of type 2 diabetes by 58% or higher, as we work toward our long-term goal to prevent type 2 diabetes in Yakima County’s adult population.