

# Public Health Practice Stories from the Field

## Pharmacists Help Improve Health of Yakama Indians Living with Diabetes

### 2.3

AI/ANs are 2.3 times more likely than non-Hispanic whites to have type 2 diabetes

### 1/3

One-third of Yakama Nation patients with diabetes take part in the pharmacy case management program

### 30%

Controlled glucose levels rose from 17% in 2004 to 30% in 2014

### 99%

Of enrolled patients, 99% had their A1c tested, compared with 85% of nonenrolled patients

Diabetes is a manageable disease, and with proper medication and monitoring, patients can avoid expensive, painful, and fatal complications. American Indian and Alaska Native (AI/AN) teens and preteens have the highest rate of newly diagnosed diabetes among youth of all races and are more likely to have complications or die from the disease.<sup>1</sup> AI/AN adults are 2.3 times as likely as non-Hispanic whites to develop diabetes.<sup>2</sup> The type 2 diabetes rate among adults on the Yakama Nation Reservation in Washington is double that of the rest of the state (14.8% versus 7.7%).<sup>3,4</sup>

Since 2004, the Indian Health Service (IHS) Special Diabetes Program for Indians has continuously funded 32 Healthy Heart demonstration projects to reduce cardiovascular disease risk in patients with diabetes. The Yakama Indian Health Service used its funding to create the Yakama Healthy Heart Program (YHHP), the only demonstration project to rely on clinical pharmacists. In YHHP, patients are scheduled for pharmacist appointments coinciding with medication refill due dates. The program has established collaborative practice agreements with medical providers for pharmacists to

- Prescribe and adjust medication for treatment of diabetes, hypertension, and hyperlipidemia
- Order and interpret laboratory results
- Perform brief physicals and foot exams
- Give immunizations
- Educate patients about cardiovascular disease risks
- Refer patients to specialists

<sup>1</sup> CDC. *National Diabetes Fact Sheet, 2011*.

<sup>2</sup> IHS. *Diabetes in American Indians and Alaska Natives Facts At-a-Glance*. 2012.

<sup>3</sup> National Indian Health Board. *The Special Diabetes Program for Indians (SDPI): Saving Lives in Washington and Providing a Strong Return on the Federal Investment*. (n.d.).

<sup>4</sup> O'Connell J, Rockell J, Gutilla M, Ouellet J. *Cost Analysis Project: Healthy Heart Project Results*. Report presented at SDPI Initiatives—Year 2, Meeting 3, Albuquerque, NM. 2012.

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# Accomplishments

YHHP was the only one of 32 Healthy Heart demonstration projects to meet and exceed recruitment targets of enrolling 50 new participants a year. Before YHHP, more than 1,200 Yakama IHS patients with diabetes received diabetes management from their overburdened primary care providers. Currently, the pharmacist-operated program provides diabetes care for more than one-third of these patients, which aids the understaffed medical department. The program has been so successful that a waiting list has been created for new patients.

The program has markedly improved the health of Yakama diabetes patients. Before YHHP started in 2004, only 17% of diabetes patients achieved optimal glucose control (HbA1c <7%), and more than half did not come in for regular laboratory tests to assess whether their diabetes was under control. Now, 10 years in, more than 30% of patients achieve optimal glucose control, and only 11% are without annual assessments and labs. Further, whereas only 19% of patients with diabetes received an annual foot exam in 2004, 67% did in 2014. Additionally, medical visits for diabetes complications among Yakama adults have decreased by about half.

A 2014 IHS annual diabetes audit<sup>5</sup> of the program showed that of the diabetes patients enrolled in YHHP for the preceding year,

- 99% had their A1c tested at least annually, versus 85% of patients not enrolled
- 34% had their glucose, blood pressure, and cholesterol under control, versus 15% of patients not enrolled
- 73% had “bad” cholesterol below 100, versus 41% of patients not enrolled
- 83% had blood pressure levels below 140/90, versus 53% of patients not enrolled
- 84% had received their annual flu vaccine, versus 57% of patients not enrolled

# Lessons Learned

The Yakama Indian Health Service learned the following from implementing YHHP:

- Pharmacists can help provide quality care to patients with diabetes to help prevent complications, reduce cardiovascular disease, and improve clinical outcomes.
- Yakama patients responded favorably to case management visits with pharmacists due to the ease of accessing their pharmacist, having medication reconciled and adjusted, and receiving education and empowerment to control their disease. This favorable response is seen in satisfaction surveys and the program’s high retention rate.
- Pharmacists reported enhanced job satisfaction and stronger relationships with patients when they were allowed to practice to the fullest extent of their training.
- Pharmacists are critical collaborators in patient-centered medical home models and can help improve health in underserved populations.

<sup>5</sup>. Yakama Indian Health Service. Internal Diabetes Audit, Quality Improvement Minutes. 2014.

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