

# Demand for Diabetes Educators Expected to Rise

BY MIRIAM E. TUCKER

FROM THE ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF DIABETES EDUCATORS

LAS VEGAS – The demand for diabetes educators is projected to increase by at least 60% by 2025, a study has shown.

“We have a diabetes epidemic. We need to increase the number of diabetes educators, and we also need to be flexible in our roles,” American Association of Diabetes Educators President Donna



**Diabetes education improves outcomes, lowers hospitalization rates, and cuts costs.**

MS. TOMKY

Tomky, N.P., CDE, said in an interview at the meeting.

“We also have to keep collecting and tracking our outcomes to be ready for pay for performance. We already have clear evidence that [diabetes education] improves metabolic outcomes, lowers hospitalization rates, and reduces cost,” said Ms. Tomky of ABQ Health Partners, Albuquerque.

The study, conducted by Dobson Davanzo & Associates for the association, comprised several sources, including a literature review, a systematic search of employment websites to examine job postings for diabetes educators, a claims analysis using Medicare claims from the years 2006-2009, and the development of a quantitative workforce model of the supply and demand for educators through the year 2025 under several scenarios.

The research modeled the current provision of diabetes education and estimated current demand to be for 43,000 diabetes educators.

By 2025, on the basis of the incidence of diabetes in the population, demand was estimated to reach 54,000, assuming no changes in how care is currently delivered.

This assumes insurance availability, delivery system structure, benefit structure, allocation of diabetes educators across different care settings, distribution of full-time/part-time diabetes educators, and the fact that diabetes education is reimbursable for people with diagnosed diabetes, and not for those with prediabetes.

For the supply of diabetes educators to be commensurate with the estimated level of demand (about 1.5% growth per year), the number of diabetes edu-

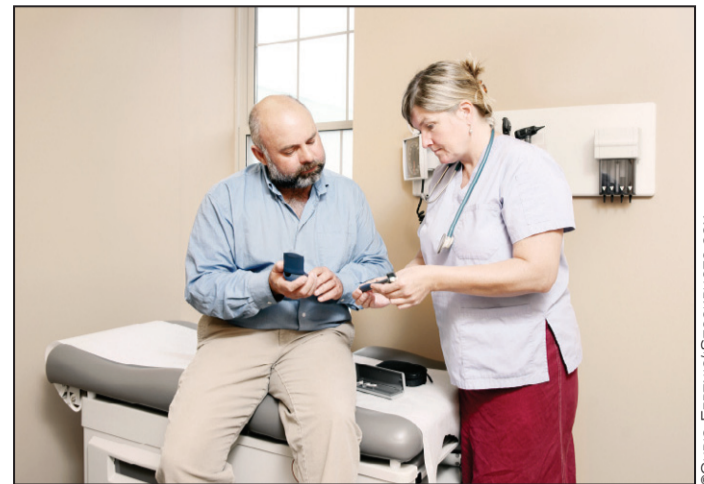
cators would have to increase by 4% per year between now and the year 2025, Ms. Tomky reported.

The survey also indicated that the range of work settings for diabetes educators will broaden, to include not only the traditional hospital outpatient and physician office positions, but also nontraditional settings, such as industry sales positions, retail clinics, management consulting, medical weight management and other specialty clinics, community health centers, home health and long-term care facilities, and workplace wellness programs.

The research was funded entirely by AADE, as one of the organization’s research initiatives.

“We felt this was very important to understand so we can move forward as an organization,” Ms. Tomky said in the interview.

“We have to understand what the



©CHRIS FERTNIG/ISTOCKPHOTO.COM

**To meet the growing demand for diabetes educators through 2025, their number would have to grow by 4% per year.**

workforce looks like now, what we will need in the future, and how to fill that void.

“I think the role of the diabetes educator is changing, with more supervisory roles in management and lower-level roles that do the education. The AADE will develop a strategic plan out of this, to best assess how to meet these demands, and provide the tools and the training.”

Ms. Tomky disclosed that she is on the speakers bureau for Novo-Nordisk and is an advisory board member for Can-AM Care. ■

# CVD Risk Factors Greater in Girls With Type 1 Diabetes

BY DOUG BRUNK

FROM THE ANNUAL SCIENTIFIC SESSIONS OF THE AMERICAN DIABETES ASSOCIATION

SAN DIEGO – Girls with type 1 diabetes had significantly increased mean hemoglobin A<sub>1c</sub> levels, body mass index, low-density lipoprotein cholesterol, and C-reactive protein, compared with boys who have the disease, results from a single-center study of 402 adolescents demonstrated.

The finding suggests that adolescence “may be a critical period for CVD prevention in girls with type 1 diabetes,” Talia L. Brown said at the meeting. “Future studies should investigate factors contributing to these gender differences.”

Adults with type 1 diabetes are known to have a higher risk of cardiovascular disease compared with nondiabetic adults, said Ms. Brown, a graduate student who is a research assistant at the Barbara Davis Center for Childhood Diabetes, Aurora, Colo.

“There is a greater relative increase in women, where women with type 1 diabetes have four times the CVD risk as nondiabetic women,” Ms. Brown said. “Meanwhile, men with type 1 diabetes have two times greater CVD risk than nondiabetic men. It is uncertain when these gender differences begin.”

To find out, she and her associates compared the cardiovascular disease risk profile of 302 adolescents with type 1 diabetes with 100 nondiabetic adolescents and evaluated gender differences between the groups. The adolescents’ mean age was 15 years.

Tanner stage was assessed by a physician or self-report at the visit.

Measures included fasting lipids, assays for HbA<sub>1c</sub> and C-reactive protein, diastolic and systolic blood pressure, and body mass index z score.

The researchers used questionnaires to assess physi-

VITALS

**Major Finding:** Compared with boys who have type 1 diabetes, girls with the disease had significantly increased average hemoglobin A<sub>1c</sub> levels (9.1% vs. 8.7%, respectively); body mass index z score (0.72 vs. 0.49); low-density lipoprotein cholesterol (95 mg/dL vs. 82 mg/dL); and C-reactive protein (0.86 mg/dL vs. 0.15 mg/dL).

**Data Source:** A study of gender differences and cardiovascular disease risk factors among 302 adolescents with type 1 diabetes and 100 adolescents without the disease.

**Disclosures:** The study was funded by the Juvenile Diabetes Research Foundation, the National Institute of Diabetes and Digestive and Kidney Diseases, and Children’s Hospital Colorado Clinical Translational Research Center. Ms. Brown said she had no relevant financial disclosures.

cal activity and average insulin dose, and they used multivariate linear regression to examine each cardiovascular disease risk factor.

Ms. Brown reported that physical activity was equivalent among the study participants (a mean of about 2 hr/day), and insulin dose was similar between boys and girls (a mean of 1.1 vs. 1.2 U/kg).

Compared with boys with type 1 diabetes, girls with the disease had significantly increased mean hemoglobin A<sub>1c</sub> (9.1% vs. 8.7%, respectively), body mass index z score (0.72 vs. 0.49), LDL cholesterol (95 mg/dL vs. 82 mg/dL), and C-reactive protein (0.86 mg/dL vs. 0.15 mg/dL).

Boys with type 1 diabetes had higher levels of systolic blood pressure, compared with girls with the disease – 115 mm Hg vs. 111 mm Hg. But girls with type 1 diabetes had higher levels of systolic blood pressure, compared with nondiabetic girls (111 mm Hg vs. 106 mm Hg).

“Girls with diabetes had higher LDL levels than both boys with type 1 diabetes and girls without diabetes,”

Ms. Brown added. “[C-reactive protein] was ninefold higher in girls with type 1 diabetes than in both girls without diabetes and boys with type 1 diabetes.”

After adjustment for hemoglobin A<sub>1c</sub> level and BMI z score, a significant increase in C-reactive protein and LDL in girls with type 1 diabetes remained, the study results showed.

The researchers also found a significant interaction between gender and diabetes, “causing type 1 diabetes to have a more detrimental effect in girls than in boys with regard

to LDL cholesterol and systolic blood pressure,” Ms. Brown said.

Increased HbA<sub>1c</sub> level and body mass index “are likely to contribute to the increased blood pressure, inflammation, and cholesterol that we observed in girls with type 1 diabetes,” she said.

“These findings are somewhat unexpected, because generally there can be an inverse relationship between glycemic control and weight. Increased HbA<sub>1c</sub> and obesity are likely to translate into worse CVD outcomes for females, and raise concern for the long-term effects in CVD health.”

When asked to speculate why HbA<sub>1c</sub> and body mass index were increased in girls with type 1, Ms. Brown said that girls generally “have a hard time controlling both [factors], so it’s hard to know what’s contributing to this.”

Prevention efforts such as maintaining a healthy diet, getting adequate physical exercise, and controlling blood pressure and cholesterol levels “may improve this problem,” she said. ■