

**SUBJECT:** Screening for acanthosis nigricans in certain schools

**COMMITTEE:** Public Health — favorable, without amendment

**VOTE:** 6 ayes — Coleman, Capelo, Glaze, Longoria, Maxey, Uresti  
0 nays  
1 present not voting — Delisi  
2 absent — Gray, Wohlgemuth

**WITNESSES:** For — Evangelina T. Villagomez; Paul Villas, University of Texas-Pan American, Border Health Office; *Registered but did not testify:* Leticia Moreno Caballero, Texas Academy of International Medicine; Greg Herzog, Texas Academy of Family Physicians; Candie Phipps, Texas Pediatric Society; Robert S. Smith, Texas Academy of Physician Assistants; Jenny Young, Texas Medical Association  
  
Against — None  
  
On — Michelle McComb, Jan Marie Ozias, Texas Department of Health

**BACKGROUND:** Acanthosis nigricans is a disorder that causes light brown-black, velvety, rough, or thickened areas on the surface of the skin, most frequently on the back of the neck. Pigmentation also can be concentrated around the armpits, knuckles, elbows, knees, soles of feet, inner thighs, and skin folds of the trunk. It is considered a primary marker for high insulin levels indicative of insulin resistance.  
  
Diabetes is a disease in which the body does not produce enough insulin (Type 1 diabetes) or does not properly use insulin to control blood sugar (Type 2 diabetes). Chronic diabetes can lead to blindness, loss of limb function, amputation, dental problems, and heart problems.  
  
In 1999, the 76th Legislature enacted HB 1860 by Gutierrez, which established an acanthosis nigricans screening pilot program for public and private school students in nine counties along the Texas-Mexico border.

DIGEST:

HB 2989 would require the Texas-Mexico Border Health Coordination Office of the University of Texas-Pan American to administer a screening program for acanthosis nigricans. Public or private school students in Texas Education Agency regional education service centers in the southern half of the state would receive screening at the same time as hearing and vision, or spinal screenings. The office could coordinate and provide technical assistance for screening activities of school districts, private schools, state agencies, volunteer organizations, and other entities.

Students would have to comply with screening requirements as soon as possible after admission to school, but would be exempt if the screening conflicted with the practices of their church or religious denomination.

Schools would have to maintain screening records for each student. The records would have to be open to the office or local health departments and could be transferred between schools without the consent of the student or their guardian.

The person performing the screening would have to send a report to the student's parents indicating that a student may have acanthosis nigricans. It would include an explanation of the disorder, a statement concerning the student's or family's need for further evaluation, and instructions for receiving evaluation and intervention by the school district.

Schools would have to submit to the office an annual report on the status of their screening activities. The office would have to monitor the quality of the screening activities, and by January 15th of each odd-numbered year, would have to submit to the governor and the Legislature a report on the screening program's effectiveness.

The bill would take effect September 1, 2001, and would be contingent on adoption of a specific appropriation.

SUPPORTERS  
SAY:

HB 2989 would provide an important preventative screening for a serious disease that is a growing problem among children. Populations most at risk for acanthosis nigricans are Hispanics, African Americans, and Native Americans. The incidence of obesity and diabetes seems to be rising among children. High blood pressure and high lipid levels have been found in children as young as five years old. If these conditions are not treated, these

children will not live beyond middle age. Chronic diabetes can lead to a variety of very serious health conditions, including blindness. Yet these conditions often can be prevented if identified early and treated with changes in exercise and diet.

Diabetes is estimated to affect as much as 20 percent of the population in the Lower Rio Grande Valley. A study conducted by the University of Texas System's Texas-Mexico Border Health Coordination Office found that 80 percent of the people with acanthosis nigricans markers have high insulin levels, which is a precursor for insulin resistance and Type 2, also called "adult-onset," diabetes. The study also found that up to 25 percent of children in grades 4 through 6 had acanthosis nigricans markers.

Costs of this screening are minimal because it is already being done in many places in the border area, and very little training would be necessary. The benefits of identifying diabetes at its early stages could improve the health of children and reduce state and local governments' costs for medical treatment and social services. Screening could be done in seconds during a child's required vision and hearing screen. Most nurses know about acanthosis nigricans from their nursing education, and the screening does not require any measurements or special instruments. The darker pigmentation is very easy to see, even for lay people.

OPPONENTS  
SAY:

This bill unnecessarily would increase state spending. If acanthosis nigricans were so easy to detect, simple public education efforts similar to those used for skin cancer warnings could be enacted by nonprofit organizations or other institutions to advise parents to check their kids and family members for acanthosis nigricans, and to see a doctor if suspicious pigmentation areas were detected. Additionally, the bill would require \$2 million over the biennium but would benefit a relatively small number of people.

NOTES:

The bill would have an estimated cost of \$2 million for the fiscal 2002-03 biennium.

The provisions of HB 2989 were included as an amendment to HB 2510 by Chavez, which passed the House on third reading on May 3. HB 2510 would establish the Texas Tech Diabetes Research Center in El Paso.

HB 2989  
House Research Organization  
page 4