WASHINGTON STATE Board of Health
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Health Impact Review
Substitute House Bill 1675
Providing Certain Public Notices in Languages Other Than English
February 18, 2008

I. Executive Summary

Substitute House Bill 1675 applies to state agencies that are required by law or rule to provide public notices of public health, safety, or welfare risk. The bill would require those agencies to provide bilingual or multilingual notices when 5 percent or more of the residents in the affected city, town, or county speak a language other than English and have limited English proficiency.

Overall, 7.6 percent of Washingtonians do not speak English very well. The health of limited English proficient populations can be disproportionately impacted during emergencies, such as during the Seattle area 2006 windstorms, which resulted in hundreds of carbon monoxide poisonings. Limited research indicates that emergency preparedness and response notices and educational efforts have the potential to reduce injuries, illness, and death. Therefore, SHB 1675 has the potential to reduce health disparities resulting from emergencies and disasters faced by limited-English proficient populations. Washingtonians with limited English proficiency are more likely to be people of color, particularly Hispanics and Asians and Pacific Islanders, which means SHB 1675 also has the potential to reduce health disparities by race/ethnicity.

II. Introduction

In accordance with RCW 43.20.285, the State Board of Health, in collaboration with the Governor's Interagency Council on Health Disparities, must conduct health impact reviews at the request of the Governor or a member of the Legislature. A health impact review is a review of a legislative or budgetary proposal that analyzes the extent to which the proposal is likely to have a positive or negative impact on health disparities. The State Board of Health completed this review in response to a February 8, 2008 request. This is a review of SHB 1675, which would require state agencies that are mandated to provide public notices of imminent or emergent public health, safety, or welfare risks to provide those notices in languages other than English if 5% or more of the residents in the affected city, town, or county speaks a language other than English and has limited English proficiency.

The term health disparities describes the disproportionate burden of disease, disability, death, and other adverse health conditions that exist among specific populations or groups. Health disparities based on race, income, gender, education, and sexual orientation are well documented.[1] Many factors interact to produce the health disparities experienced by people of color; biological/genetic factors do not fully explain these disparities in health.[2] As examples, in Washington State, American Indian and Alaska Native males and females and Black males have the shortest life expectancies.[3] In Washington, American Indians and Alaska Natives and Blacks

generally have the highest rates of chronic disease and injury, though exceptions do exist. For example, Hispanics and Asians have relatively high rates of cervical cancer.[3] The purpose of this review is to analyze SHB 1675 to determine if its implementation would either increase or decrease health disparities in Washington State. Disparities by English language proficiency and by race/ethnicity are considered in this review.

III. Background

Summary of the Bill
Substitute House Bill 1675 applies to state agencies that are already required by law or rule to provide public notices of public health, safety, or welfare risk. The bill would require those agencies to provide bilingual or multilingual notices when a significant segment of residents speak a language other than English and have limited English proficiency. Significant segment means 5% or more of the residents residing in the affected city, town, or county. The requirement applies to, but is not limited to, proposed locations for criminal facilities or facilities that would house sex offenders. The requirement does not apply to the adoption of rules under the Administrative Procedures Act.

Intended Impact of the Bill
This bill would assist residents with limited English proficiency to understand public notices of health, safety, and welfare risks, so they can take appropriate measures to protect themselves.

Activities Implemented as a Result of the Bill
The multiple agency fiscal note indicates that this bill would primarily impact the Washington Military Department's Emergency Management Division (EMD), which provides public information notices through its State Emergency Operation Center in response to emergencies or disasters in accordance with RCW 38.52.030 (4) and its comprehensive emergency management plan. The EMD would craft pre-scripted text for a number of natural and man-made hazards and have these messages translated into multiple languages. The EMD would also develop real-time response messages during emergency situations, which would require rapid translation and dissemination during the emergency event. The EMD anticipates using multiple media to disseminate public notices, including television, radio, internet, community outreach, and newspaper. The EMD would coordinate the creation of messages with other state agencies, such as the Washington State Patrol, the Washington National Guard, and the state departments of Health, Agriculture, Transportation, Ecology, Fish and Wildlife, Energy, and Natural Resources.

In the multiple agency fiscal note for SHB 1675, several state agencies indicated that there would be no fiscal impact from this bill. Title VI of the Civil Rights Act requires the Department of Transportation to provide notices in multiple languages, so this bill would not change how the agency conducts its business. The Department of Social and Health Services' Special Commitment Center has a requirement to provide public notice about proposed locations for secure community transition facilities for sex offenders. However, it already provides such notices in multiple languages; therefore, this bill would not result in any changes to agency practice. Washington's community notification laws resulting from the Community Protection Act assign responsibility for public notification of individual registered sex offenders residing in the community to local law enforcement agencies.[4] The Department of Corrections has

requirements to provide public notice when siting prisons and work-release facilities. Staff from the agency anticipates that the language-access needs of the local community would already be considered during any siting processes, so the bill would not necessarily change agency practice. The Department of Health provides notice to local public health agencies and private entities of imminent or emergent health risks and the local agencies then provide notice to their communities. This bill does not place any public notice requirements on local public health agencies or private entities. The Department of Community Trade & Economic Development and the Washington State Patrol do not have any requirements to provide public notice of imminent or emergent health, safety, or welfare risks.

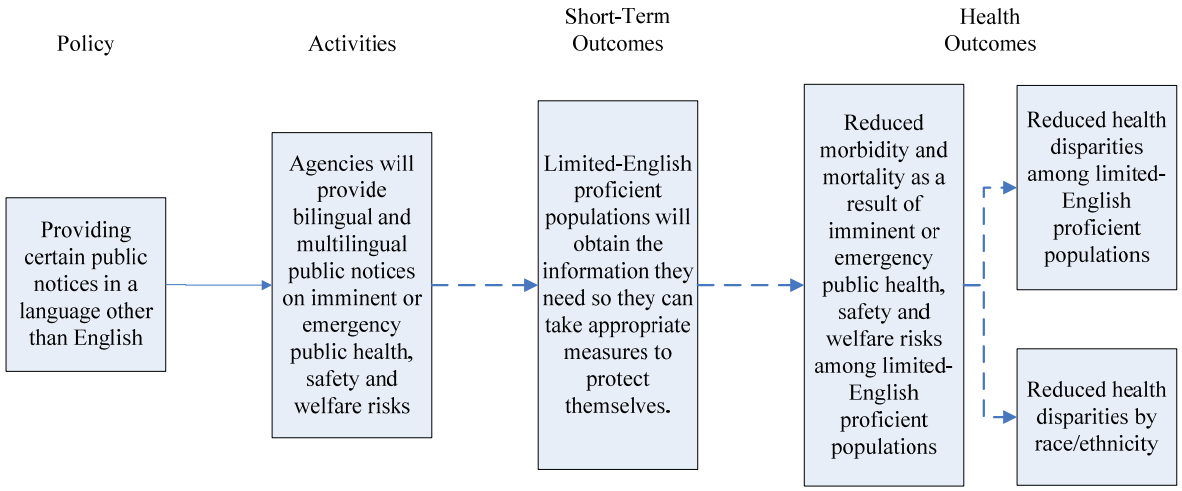
Budget
According to the fiscal note, implementation of SHB 1675 will cost the Washington Military Department $484,000 for the first biennial budget, followed by a cost of $170,000 for the subsequent two biennial budgets. No other agencies would be faced with a fiscal impact.

IV. Methods

To conduct the review, Board staff relied on the information presented in the bill, the House bill report, the House bill analysis, the multiple agency fiscal note summary, discussions with state agency staff, and a limited literature review. Internet search engines and database searches, such as PubMed, were used to conduct the literature review.

A conceptual model was developed to focus the research for this review, see Figure 1. The left side of the model describes the policy and the activities that will be initiated as a direct result of the policy. The model then indicates how the activities may or may not lead to a reduction in health disparities. The latter section of the model uses dashed arrows to indicate where research was conducted to identify whether evidence exists to support the model. Because SHB 1675 would primarily impact the Washington Military Department and its efforts to inform the public about emergencies and disasters, this health impact review will focus on public emergency preparedness and response notices and subsequent impacts on health.

Figure 1: Conceptual model describing how SHB 1675 could result in a reduction in health disparities



V. Findings and Discussion

Limited English Proficiency in Washington State

According to data from the 2006 American Community Survey, 16.6% of Washington's population five years and older speak a language other than English. About 7.2% speak Spanish, 5.0% speak an Asian language, 3.5% speak an Indo-European language, and less than 1% speak other languages.[5] Overall, 7.6% of Washingtonians reported that they spoke English less than very well. Among those who reported speaking Spanish or an Asian language in the home, about half reported that they spoke English less than very well. Indo-European language speakers were more likely than those who speak Asian languages and Spanish to speak English very well. Table 1 provides information on languages spoken and English proficiency in Washington State.

Table 1: Languages Spoken at Home and English Proficiency in Washington State, 2006

	Total	Percent of specified language speakers	
		Speak English "very well"	Speak English less than "very well"
Population 5 years and over	5,988,982	92.4%	7.6%
Speak only English	83.4%	n/a	n/a
Speak a language other than English	16.6%	54.3%	45.7%
Spanish or Spanish Creole	7.2%	51.8%	48.2%
Other Indo-European languages	3.5%	65.0%	35.0%
Asian & Pacific Island languages	5.0%	49.7%	50.3%
Other languages	0.9%	57.5%	42.5%

Source: U.S. Census Bureau, 2006 American Community Survey. Available from the U.S. Census Bureau American FactFinder Website.

English proficiency varies greatly by county and local metropolitan area.[6] As examples, in 2006, the proportion of people 5 years and over who spoke English less than very well was 16.6% in Yakima County, 11.1% in King County, 5.4% in Pierce County, 3.3% in Thurston County, and 2.6% in Spokane County. Data from 2000 found that the proportion of households that were linguistically isolated (i.e., where all members of the household 14 years and older have some difficulty with English) was 8% in Yakima, 5.3% in the Tri-Cities area, 4.2% in the Seattle/Bellevue/Everett metropolitan area, 2.6% in Tacoma, and 1.7% in Olympia.

Disproportionate Impact of Disasters on Limited English Proficient Populations

The series of severe windstorms and subsequent widespread power outages that occurred in December 2006 are an example of how Washington's limited English proficient populations can be disproportionately impacted during disasters. As a result of the storm, there were more than 260 patients with carbon monoxide poisoning, many of whom required treatment in a hyperbaric oxygen chamber. Fifteen people lost their lives in the storms; eight of the deaths were due to carbon monoxide poisoning.[7] According to media reports during the time of the storms, the poisonings and deaths were primarily among residents who did not speak English and/or did not use mainstream media for information. According to a Seattle Times article, 90% of patients treated for carbon monoxide poisoning at Harborview Medical Center did not speak English.[8] Many of the poisonings occurred among African and Southeast Asian immigrants.[9]

Moreover, in a review of the published literature on ice storm-related carbon monoxide exposures, the authors of the review identified eight articles that found significant numbers of exposures occurred in non-English speaking groups.[10] Several studies discussed in that review found that non-English speaking racial and ethnic groups are particularly at risk of carbon monoxide poisoning from indoor burning of charcoal briquettes; however, another study suggests that these populations may also be at high risk for carbon monoxide poisoning from electric generators.[11]

Effectiveness of Public Emergency Preparedness and Response Notices

Very little information is available in Washington or nationally regarding the efficacy of providing public notices of public health, safety, or welfare risks. Most of what is available, however, is related to emergency preparedness and response notifications.

For example, in one study, the authors compared the number of patients seen for carbon monoxide inhalation following two separate ice storms.[10] The ice storms both occurred in the Rochester, New York area; the storms occurred 12 years apart. Following the first storm in 1991, recommendations for increased public education were made. During the second ice storm in 2003, extensive public health-related educational efforts were made via multiple media, including radio, television, and newspaper. The authors found an 18% reduction in the number of patients treated for carbon monoxide inhalation, from 55 patients seen after the 1991 storm to 45 patients seen after the storm in 2003. The authors considered a number of reasons for the reduction and suggested that the enhanced public health education may have had a modest effect, though the reduction could also have been due in part to a briefer period of power loss during the second storm. In addition, the authors advise that public education efforts should be coupled with physical interventions such as installation of carbon monoxide detectors with battery back-up.

A second study, which described 63 patients treated for carbon monoxide poisoning from portable electric generators, found that the most common reason for the poisonings was a lack of awareness of the dangers of carbon monoxide and ventilation requirements of generators.[11] Other reasons, such as fear of theft, extension cord length, and concern about the generator getting wet were rarely reported. This suggests that public notices and other educational efforts have the potential to increase knowledge, influence protective behaviors and reduce the occurrence of carbon monoxide poisoning.

A review article that examined the effectiveness of early warning systems for extreme weather events found that such systems can reduce morbidity and mortality.[12] As an example, early warnings of flood risks in Europe have been shown to reduce flood-related fatalities. In addition, evaluation of the Philadelphia Hot Weather-Health Watch/Warning System found that the system saved 117 lives over a 3-year period and was cost-effective. While the authors of the review conclude that early warning systems, which include notices to the public, can be effective, they suggest that such systems can be improved with more focus on prediction and prevention rather than response.

Potential Impact of SHB 1675 on Health Disparities Faced by Limited English Proficient Populations

The Emergency Management Division of the Washington Military Department would be the agency most impacted by passage of SHB 1675. If this bill is implemented, the EMD would expand its current efforts to provide the public with emergency preparedness and response information by translating messages into multiple languages and using appropriate dissemination strategies to reach targeted racial/ethnic groups. Limited research on emergency preparedness and response notices and educational efforts indicates the potential to reduce injuries, illness, and death. Therefore, as more limited English proficient populations in Washington State receive emergency preparedness and response information in their primary language, the incidence of injuries, illness, and death related to emergency events, such as carbon monoxide poisonings, may decline for these populations. Moreover, since the policy would not result in enhanced educational efforts for English-speaking residents, it would disproportionately impact limited English proficient populations. This disproportionate impact could reduce health disparities resulting from emergencies and disasters faced by limited English proficient populations.

Potential Impact of SHB 1675 on Racial/Ethnic Health Disparities

In addition to reducing health disparities for limited English proficient populations, SHB 1675 could reduce disparities in health by race/ethnicity if its implementation can disproportionately improve the health of communities of color. The bill's implementation may have this effect because limited English proficient populations are more likely to be populations of color. Table 2 provides the share of households that are linguistically isolated by race/ethnicity for a number of metropolitan areas in Washington State. Though statewide data on English proficiency are not available by race/ethnicity, the data from Table 2 shows that for all metropolitan areas where information is available, the proportions of Hispanic and Asian households that are linguistically isolated far exceed the proportions for non-Hispanic White households.

Table 2: Percentage of Households in Metropolitan Areas of Washington State that are Linguistically Isolated by Race/Ethnicity, 2000

Metropolitan Area	Hispanic	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic Asian
Bellingham	19.2 %	0.8 %	0.0 %	28.4 %
Bremerton	5.4 %	0.2 %	0.6 %	22.5 %
Olympia	11.3 %	0.3 %	0.8 %	28.8 %
Portland/Vancouver	30.4 %	1.1 %	2 .0%	29.0 %
Richland/Kennewick/Pasco	31.8%	0.4 %	1.7%	19.3 %
Seattle/Bellevue/Everett	21.5 %	1.1 %	3.6 %	27.7 %
Spokane	5.3 %	0.8 %	0.2 %	25.3 %
Tacoma	15.2 %	0.7 %	0.3 %	32.5 %
Yakima	30.5 %	0.5 %	1.2 %	25.7 %

Notes: A linguistically isolated household is one in which all members 14 years old and over have at least some difficulty with English. Source: U.S. Census Bureau, 2000 Census, Summary File 4. Available from metropolitan quality of life data and diversitydata.org.

VI. Policy Consideration

African immigrants were among those disproportionately impacted by the December 2006 windstorms and carbon monoxide poisonings in the Seattle area. However, linguistically isolated households made up only 3.6% of the Black households in the Seattle area, so it is likely that linguistically isolated African immigrants make up much less than 5% of the overall population in the Seattle area.

VII. Conclusion

SHB 1675 has the potential to reduce health disparities for limited English proficient populations. In addition, the bill has the potential to reduce health disparities by race/ethnicity because limited English proficient populations are more likely to be communities of color, particularly Hispanic and Asian and Pacific Islander.

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