

Scald Burn Prevention Campaign for Hispanic Families

BACKGROUND

The Arizona Burn Center, in Phoenix, Arizona, is the Southwestern U.S. regional burn center. It is the second highest patient volume burn center in the nation, treating over 900 adults and children each year. **Approximately 300 children each year are hospitalized at the Burn Center**, most of whom are hospitalized for scald burns. During 2005 and 2006, Burn Center staff noticed that an alarming number of young Arizona children were sustaining scald burn injuries that required specialized burn care at the Arizona Burn Center. **Eighty-six percent (86%) of patients were enrolled in Medicaid**. Almost all children were scalded in their own home. Furthermore, **over two-thirds of the children hospitalized for scalds were Hispanic**. Patients of Hispanic ethnicity traditionally have composed one third of patients admitted to the Burn Center. The dramatic over-representation of Hispanic children among pediatric scald burn patients greatly concerned Burn Center staff.



Hispanic children represent an alarming 63% of children hospitalized for scald burns.

Analysis of pediatric scald burn admissions in the 2005 Arizona Burn Center Registry revealed that the greatest percentage of children hospitalized for scalds resided in two areas of Phoenix -- Maryvale and South Phoenix. Although Burn Center professionals wanted to halt this alarming trend, there is a **large gap in injury prevention research**, particularly burn prevention research, as it relates to Hispanic families. Therefore, the Arizona Burn Center decided to create its own investigative project to develop a way to address this salient local problem.

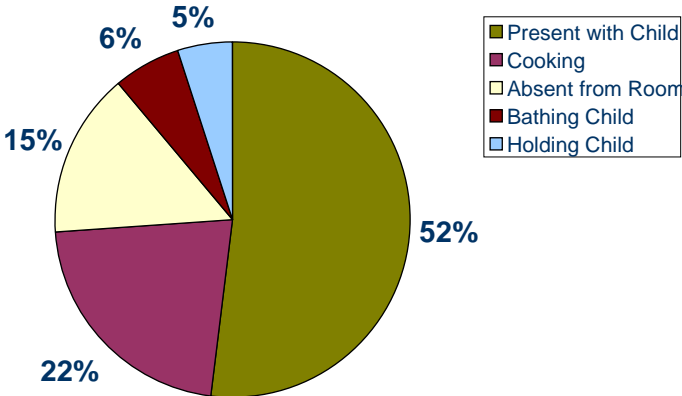
To better define possible reasons for this alarming trend of scald burns within the area's Hispanic community and to identify workable prevention strategies, the Arizona Burn Center sought and received the support of St. Luke's Health Initiatives to conduct a two-step project. The first step of the project was a review of the medical records for all children age zero to five years admitted to the Arizona Burn Center between April 2005 and May 2006 for scald burns. The second step of the project was to conduct focus groups with Hispanic parents residing in the two "high burn" Phoenix areas to determine what families do to protect their children from scald burns.

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WHAT ARE THE CONCLUSIONS?

Scald burns can be addressed through prevention programs. In 85% of scald burn hospitalizations, a caregiver was in the room with the child. Mothers were usually the caregiver when scalds occurred and should be targeted to receive information. However, 85% of the focus group respondents said they had never received any type of burn prevention education. At an average local treatment cost of \$60,000, Arizona stakeholders would pay \$6 million to treat 100 children for scald burns. Imagine the focused prevention campaign that could be developed with that amount.

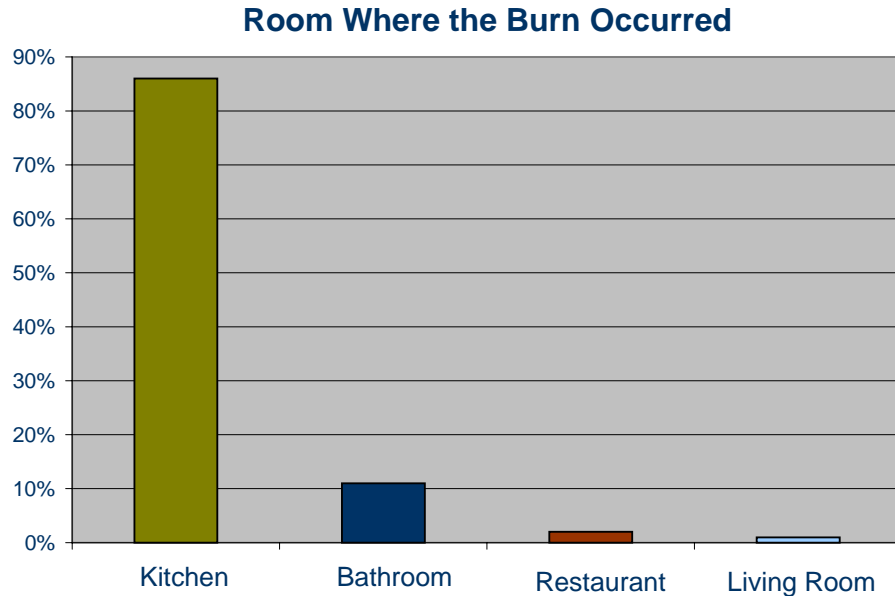
Caregiver's Activity at Time of Burn



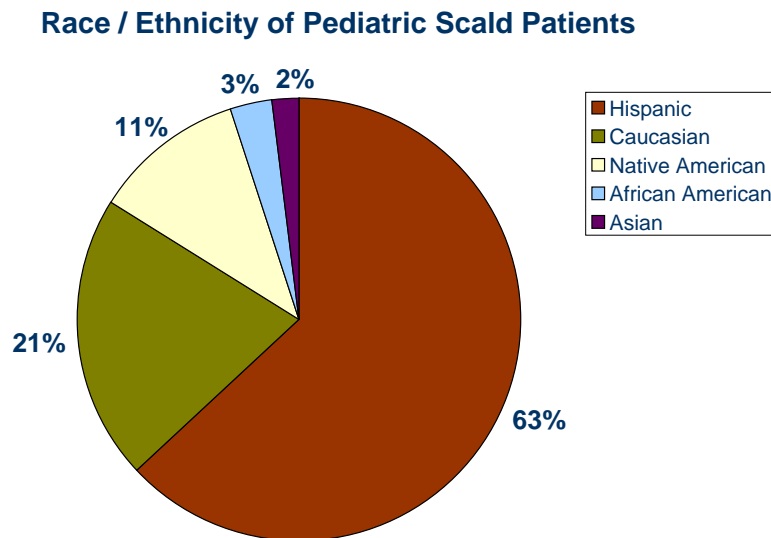
Parents need more information about their child’s development. Parents believed scalds were uncommon. Research and parent focus group responses illustrate that parents are unaware of toddlers’ ability to reach and grasp items on higher surfaces. This chart helps visualize how and where children receive quick, deep burns from hot liquids, beverages and foods.

Area of Body	Age Range					Total	
	0-12 mos.	13-23 mos.	2-3 yrs	3-4 yrs	5-6 yrs		
Face	Count	2	14	12	2	1	31
	Percentage	10.5%	33.3%	37.5%	11.1%	14.3%	
Hands	Count	7	9	6	3	1	26
	Percentage	36.8%	21.4%	18.8%	16.7%	14.3%	
Chest	Count	3	21	12	7	4	47
	Percentage	15.8%	50.0%	37.5%	38.9%	57.1%	
Back	Count	1	10	5	2	2	20
	Percentage	5.3%	23.8%	15.6%	11.1%	28.6%	
Legs	Count	8	9	7	6	2	32
	Percentage	42.1%	21.4%	21.9%	33.3%	28.6%	
Feet	Count	3	6	5	3	0	17
	Percentage	15.8%	14.3%	15.6%	16.7%	0.0%	
Arms	Count	3	14	14	4	3	38
	Percentage	15.8%	33.3%	43.8%	22.2%	42.9%	
Pelvis	Count	3	2	2	2	1	10
	Percentage	15.8%	4.8%	6.3%	11.1%	14.3%	
Buttocks	Count	6	2	1	1	0	10
	Percentage	31.6%	4.8%	3.1%	5.6%	0.0%	
Neck	Count	0	10	8	0	1	19
	Percentage	0.0%	23.8%	25.0%	0.0%	14.3%	
Total Count		19	42	32	18	7	118

Pediatricians can help parents understand how to prevent burns. Parents in this project trusted their child’s doctor to have accurate information. They often did not have family nearby to provide advice. However, pediatricians were not named as source of information for current home safety strategies. Pediatricians could enhance the injury prevention information they provide during well-child checks. They could also encourage parents to use passive prevention methods: turn the water heater temperature to 120°F, turn pot handles inward, and **keep children out of the kitchen!**



Schools and firefighters also can play a role in preventing scald burns. Many parents had received information about their child’s health and safety from schools and firefighters.



Prevention messages should be in English and Spanish. Although two-thirds of the children admitted to the Arizona Burn Center in the one-year period were Hispanic, 61% of their parents with the child at the hospital preferred speaking about the child’s treatment in English. However, the focus group parents unanimously would prefer to speak about the child’s treatment in Spanish. The Phoenix Hispanic community is diverse and educational materials should encompass this diversity.

QUESTIONS ASKED IN THE PROJECT

The medical record review and the parent focus groups asked and answered different questions. The questions asked and the answers received were:

Medical Record Review Question	Answer
Patient race / ethnicity	Two-thirds of children hospitalized for scald burns were of Hispanic ethnicity.
Payor Source	Most (86%) children were enrolled in Medicaid.
Parent language preference	Most (61%) of parents of pediatric burn patients preferred English, although more than a third (36%) preferred Spanish.
Age	Children age one to two years made up nearly three quarters of children admitted for scald burns.
Gender	There was no significant difference between boys and girls.
Date of the burn event	More scalds occur in cold weather, January to March.
Etiology of the scald	Most children were burned by hot tap water, hot soup or a hot beverage.
Child's activity at the time of the burn	Children were burned by pulling hot liquids or foods down from a higher surface – stoves, countertops, tables.
Caregiver present at the burn	Family members, notably the mother.
Caregiver's activity at the time of the burn	In over half (52%) of scald events, the caregiver was not engaged in a specific activity. Scalds also occurred while caregivers were cooking, bathing or holding the child. Mothers were absent from the room in 15% of scald events.
Room or location in the residence where the burn occurred	The kitchen.
Location of the burns on the body	Most children were burned on the chest, arms, legs, and face, consistent with hot liquid poured from above.
Total body surface area of the burn	Most children had less than 5% of their body burned.
Parent Focus Group Question	Answer
Are parents aware of scald burns?	Parents believe scald burns are uncommon and 85% parents said they had not received any type of burn prevention education.
How do parents currently protect their children from burns?	Parents had no specific rules for preventing burns, although they warned children to be careful.
How do parents learn about the methods they use to keep their children safe in the home?	Most parents learn about child home safety from the media, firefighters or their child's school.
Who provides supervision for young children in the home?	Mothers, other female relatives.
Who should deliver health information and in what format?	Pediatricians, schools, or small discussion groups in the community (platicas).



This report has been a joint effort of St. Luke's Health Initiatives, Maricopa Integrated Health System, It's A Baby's Life and South Phoenix Healthy Start. Additional copies can be obtained from the MIHS web site at www.mihs.org.