Safe N’ Sound
Implementation of a tool to assist in community injury prevention in a healthcare setting

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Problem

- Locally 3,140, 0-4 year old ED visits in 2003, 57% home/vehicle.
- Only one FTE for Injury Outreach but large catchment of providers and healthcare offices.
- Counseling is common place in well child visits and hospitals gravitate toward injury programs.
- Current messaging present a broad stroke of many risk behaviors to families at this age.
- Injury risk and reduction messages related to the child’s age/development and change rapidly.
- Providers must pick current messaging by age with no prioritization of risk, without a larger time intensive assessment.
- Providers must tailor to family within time constraints.
Safe N’ Sound

A computer based tool to collect real time self reported caregiver risk behaviors on home and motor vehicle injuries for children age 0-4 and provide tailored prioritized feedback to initiate behavior change and guide anticipatory guidance.
Study Design

- For the first part of this study, we used five offices to collect barriers and facilitators to adoption and implementation in a three phase process with qualitative data tools.

- We also collected use of the program through quantitative data collected by the computer and matching that with chart audits.
Study Design continued

- Outputs also allowed us to look at if injury risks identified mirrored community injury risks.
- And we identified sub groups of types of injuries within populations of the community to enhance educational opportunities in that area with their risk topics.
- And lastly, began looking at other placements and uses for the device.
Device Selection
**Implementation**

- Caregivers self selected to use the device in three settings (five pediatric clinics, Emergency Room, Patient Resource Library) guided by prompts (banners, signs, brochures, invite from front desk staff).

- Caregivers entered name of child to allow for personalization and age of child to identify appropriate risk questions.

The pediatric offices were funded by an extramural grant from the Eunice Shriver Kennedy National Institutes of Child Health and Development.
Feedback form

- Two risks identified from prioritization and by age differentiation from caregiver responses
- Content on beliefs model
- Four pages
- Provider sheet as applicable

* Previous studies behavior change.
Results

Users- Clinics only

- 48.9% Female 51.1% male (child)
- 67.8% mothers
- 26.2% high school or less
- 38.4% under 50,000 income
- 52% Caucasian

12.3% Hispanic/Latino * program usage note
Highest two risk areas identified by kiosk users at clinic sites N=1744

- MV: 33%
- Fire Burn: 25%
- Drown: 17%
- Falls: 12%
- Poisoning: 7%
- Suff: 4%
- None: 2%
Age 1
18.6% of sample

- mv: 15%
- fire/burn: 6%
- suff: 8%
- fall: 17%
- drown: 27%
- poisoning: 27%
<table>
<thead>
<tr>
<th></th>
<th>MV</th>
<th>Drowning</th>
<th>Burn/Fire</th>
<th>Suffocatio</th>
<th>Falls</th>
<th>Poisoning</th>
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<tbody>
<tr>
<td>All Clinics</td>
<td>559</td>
<td>125</td>
<td>432</td>
<td>283</td>
<td>207 (12.1%)</td>
<td>62 (3.6%)</td>
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<tr>
<td></td>
<td>(32.8%)</td>
<td>(7.3%)</td>
<td>(25.4%)</td>
<td>(16.6%)</td>
<td>(12.1%)</td>
<td>(3.6%)</td>
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<tr>
<td>Mortality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>National - total</td>
<td>271.6</td>
<td>517.4</td>
<td>246.8</td>
<td>918.0</td>
<td>61.8 (3%)</td>
<td>47.4 (2.3%)</td>
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<tr>
<td></td>
<td>(13.2%)</td>
<td>(25.1%)</td>
<td>(12%)</td>
<td>(44.5%)</td>
<td>(3%)</td>
<td>(2.3%)</td>
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<tr>
<td>National - rate</td>
<td>1.34</td>
<td>2.55</td>
<td>1.22</td>
<td>4.53</td>
<td>0.31</td>
<td>0.23</td>
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<td>State - total</td>
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<td>17.0</td>
<td>11.7</td>
<td>52.7</td>
<td>1.7 (1.6%)</td>
<td>2.0 (1.9%)</td>
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<td></td>
<td>(19.3%)</td>
<td>(16.1%)</td>
<td>(11.1%)</td>
<td>(50%)</td>
<td>(1.6%)</td>
<td>(1.9%)</td>
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<tr>
<td>State - rate</td>
<td>2.02</td>
<td>1.69</td>
<td>1.16</td>
<td>5.24</td>
<td>0.17</td>
<td>0.2</td>
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<td>Morbidity</td>
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<td>National - total</td>
<td>46703.0</td>
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<td>13439.4</td>
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<td></td>
<td>(4%)</td>
<td>(0.2%)</td>
<td>(5.8%)</td>
<td>(1.2%)</td>
<td>(84.4%)</td>
<td>(4.5%)</td>
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<td>National - rate</td>
<td>230.5</td>
<td>12.5</td>
<td>332.2</td>
<td>66.3</td>
<td>4854.6</td>
<td>259.0</td>
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<td>3914</td>
<td>500</td>
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<td></td>
<td>(6.3%)</td>
<td>(0.3%)</td>
<td>(6.1%)</td>
<td>(0.8%)</td>
<td>(77.8%)</td>
<td>(8.9%)</td>
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<tr>
<td>State - rate</td>
<td>208.2</td>
<td>9.3</td>
<td>201.7</td>
<td>25.8</td>
<td>2589.2</td>
<td>294.7</td>
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</table>
Differences across sites

- N=3388
- Clinics primarily under age 2.
- Emergency room primarily over age 2.
- Differences within each clinic site
Across sites – tailoring message to population

- There were differentials among sites
  - Highest suffocation - 1
  - Highest burn/fire - 2
  - Highest motor vehicle - 2

Program highlights and allows for differentiation among practices to tailor more education.
Tailored Outreach
Facilitators

- Anticipatory guidance an integral part of healthcare already.
- Requires minimal staff time
- Computers are easily supported by hospital IT.
- Provides enhanced physician contact time and risk feedback/education tailoring
- Multiple visits for healthcare in this age period.
Barriers and Obstacles

- Not all risk behaviors can be covered
- Inter-professional gradient for full compliance
- Computer Interaction not currently expected in waiting room= less parent perceived initial interest and more staff time/visual cues
- Payment system
- Computer technology not quite there
Questions

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Information:

www.safeandsoundallaround.com