Identifying Feasible Interventions to Prevent Long-term Health Consequences of Psychotropic Medications Prescribed to Children at the Baird School

Arkhipova-Jenkins I1, Harris A1, Kleeman L1, Meyendorff A1, Victor J1, Winikor J1, Wright K1, and Kessler R1

1University of Vermont College of Medicine

Introduction

Many children with behavioral needs struggle in traditional classroom settings. Children receive help through specialized education institutions, pharmacotherapy, and psychiatric counseling. While substantial information exists about drug indications and side effects, there is little literature documenting the barriers caregivers face in addressing side effects.

We conducted a literature review to identify the side effects and associated comorbidities of the six most frequently prescribed psychotropic drugs at the Baird School.

We designed a survey to assess the caregivers’ resources and barriers to minimizing these side effects, and then offered a collection of feasible recommendations.

Methods

Our survey contained questions about physical activity, nutrition, sleep hygiene, medication administration, access to medical care and community/state programs.

Surveys were mailed to the caretakers of the 31 students at Baird School; responses were collected for 2 weeks.

Due to low initial survey response, all 31 caretakers were called to complete more surveys by phone.

Caretakers that were initially unavailable were called a second time. No messages were left.

Survey responses were tabulated and data analysis was performed.

Results

Figure 1: Why A Child Misses A Dose of Medication

- 56% (9/16) of respondents reported missed doses of medication at least once per month.

- Figure 2: There is a relationship between having a set bedtime and less difficulty falling asleep.

- 71% (12/17) of caregivers are not aware of specific nutritional needs related to their children’s medications.

- Figure 4: The CDC recommends 7 hours of physical activity per week (60 minutes per day).

- Figure 5: 71% (15/21) of children were reported to not be fulfills the CDC’s recommendations for physical activity.

- 60% of Baird students are NOT fulfilling the CDC’s recommendations for physical activity.

Discussion

Survey data identified areas for health improvement in Baird students.

- Baird students most often miss a dose of medication because a caregiver forgot to administer it. Methods for remembering when to give each dose may help reduce adverse side effects associated with missing a dose.

- Since most children who experience sleep difficulties do not have a bedtime routine, improving sleep hygiene may improve overall health.

- Most caregivers were unaware of their children’s medication-specific nutritional needs. Recommendations should promote awareness of medications’ effects on appetite and activity.

- The majority of Baird students are not meeting the CDC recommendations for physical activity.

- Behavioral problems are the most significant barrier to involvement in community programs. Recommendations for improving physical activity should include individual or specialized forms of exercise.

Limitations

- The sample size (31) & number of surveys completed (21) were too small to reach statistical significance.

- Low initial survey response required follow-up phone calls, but 15/31 caregivers were unreachable.

- Families with the greatest barriers may not have been reached due to lack of access to phone/email, lack of time or motivation to complete the survey, or illiteracy.

- The current CDC recommendations for physical activity, nutrition, & sleep are not specific to children taking psychotropic medications.

Future Work

Based on the barriers identified in this project, future work could include caregiver education on physical activity, nutrition, and sleep hygiene, as well as identifying more accessible and specialized community programs.

Acknowledgements

A sincere thank you to Michele Phelps and Alyssa Coiffi at the Baird School, Dr. Rodger Kessler, and Dr. Jan Carney for all their advice and assistance with the project.

References:

Stigler KA, et al.  Weight gain associated with typical and atypical antipsychotic medications in children and adolescents.  Pediatric Drugs, 2004; 6(1); 33-44.  
Baird School, Dr. Rodger Kessler, and Dr. Jan Carney for all their advice and assistance with the project.
Advance Directives and End-of-Life Care: Completion, Conversations, and Concerns of Burlington Housing Authority Residents

Katherine Clark1, Gwendolyn Fitz-Gerald1, Claire Frost1, Benjamin Goldstein1, Eric Kalivoda1, Sarah Persing1, Damian Ray1, Sarah Russell2, Claire Rutenbeck2, and Gerald Davis1

1University of Vermont College of Medicine and 2Burlington Housing Authority

Introduction

• An Advance Directive is a document that allows patients to declare their wishes regarding medical care and decision making should they become unable to communicate their preferences due to an accident or illness.

• The Patient Self Determination Act, passed in 1991, requires that health care institutions, such as hospitals and nursing homes, inform patients of their rights to make health care decisions, the hospitals policies regarding recognition of Advance Directives, and educate the staff and community about advance care planning.

• Despite the passage of this legislation, completion of Advance Directives remains low. It is estimated that less than 25% of adults nationwide have completed an Advance Directive (1).

Objectives

The objectives of this project were to:

• Determine rates of Advance Directive use by residents living in Burlington Housing Authority complexes.

• Identify barriers to completion of Advance Directives and interventions that might help with end-of-life care planning.

• Assess attitudes and concerns about end-of-life care.

• Increase knowledge and awareness of Advance Directives.

Methods

Participants: Study participants were individuals currently residing in three Burlington Housing Authority (BHA) apartment complexes located in downtown Burlington, Vermont.

Survey: An anonymous five item survey about experiences, barriers, and concerns related to end-of-life care and Advance Directives was drafted (2). The survey was distributed door-to-door in each of the BHA complexes. Additional surveys were distributed at one-hour educational sessions in each of the buildings to participants who had not previously completed the survey. Surveys were collected by the wellness coordinator in each building and at the educational sessions. A total of 43 surveys were collected.

Table 1: Demographic Information of Survey Respondents

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>23</td>
<td>53%</td>
</tr>
<tr>
<td>25-64</td>
<td>10</td>
<td>22%</td>
</tr>
<tr>
<td>65+</td>
<td>10</td>
<td>22%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>14</td>
<td>33%</td>
</tr>
<tr>
<td>Female</td>
<td>29</td>
<td>67%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School/GED</td>
<td>4</td>
<td>9%</td>
</tr>
<tr>
<td>Associate’s degree</td>
<td>9</td>
<td>21%</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>6</td>
<td>14%</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td>Post-graduate degree</td>
<td>3</td>
<td>7%</td>
</tr>
</tbody>
</table>

Data: Data were compiled and analyzed based on number or percentage of responses using Microsoft Excel software.

Results

Table 1: Demographic Information of Survey Respondents

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>23</td>
<td>53%</td>
</tr>
<tr>
<td>25-64</td>
<td>10</td>
<td>22%</td>
</tr>
<tr>
<td>65+</td>
<td>10</td>
<td>22%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>14</td>
<td>33%</td>
</tr>
<tr>
<td>Female</td>
<td>29</td>
<td>67%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School/GED</td>
<td>4</td>
<td>9%</td>
</tr>
<tr>
<td>Associate’s degree</td>
<td>9</td>
<td>21%</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>6</td>
<td>14%</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td>Post-graduate degree</td>
<td>3</td>
<td>7%</td>
</tr>
</tbody>
</table>

Table 2: Improving Completion Rates

<table>
<thead>
<tr>
<th>What Would Help With Your End of Life Care Planning?</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have Advance Directive Forms provided to you</td>
<td>35%</td>
</tr>
<tr>
<td>Conversation with family and friends</td>
<td>26%</td>
</tr>
<tr>
<td>Informatonal pamphlet about Advance Directives</td>
<td>46%</td>
</tr>
<tr>
<td>Educational session about Advance Directives</td>
<td>35%</td>
</tr>
<tr>
<td>Discussion with a doctor/medical coordinator</td>
<td>26%</td>
</tr>
</tbody>
</table>

Table 3: Barriers to Completion of Advance Directives

<table>
<thead>
<tr>
<th>Barriers to Completion of an Advance Directive (AD)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have never heard of this (an AD) before</td>
<td>19%</td>
</tr>
<tr>
<td>I haven’t gotten around it / too busy</td>
<td>19%</td>
</tr>
<tr>
<td>My doctor never brought it up</td>
<td>14%</td>
</tr>
<tr>
<td>I am in the process of completing it now</td>
<td>12%</td>
</tr>
<tr>
<td>Some other reason</td>
<td>12%</td>
</tr>
<tr>
<td>Someone else will take care of it</td>
<td>5%</td>
</tr>
<tr>
<td>Too upsetting to discuss with family / friends</td>
<td>5%</td>
</tr>
<tr>
<td>The document is too hard to understand</td>
<td>2%</td>
</tr>
<tr>
<td>I am too young to need it now</td>
<td>0%</td>
</tr>
<tr>
<td>Too upsetting to discuss with my doctor</td>
<td>0%</td>
</tr>
<tr>
<td>I don’t understand what I should complete one</td>
<td>0%</td>
</tr>
</tbody>
</table>

Discussion and Conclusions

• About 1/3 of participants had already completed an Advance Directive; the majority had not.

• The most common barriers to Advance Directive completion were lack of knowledge about Advance Directives, being too busy to fill one out, and that health care providers had not broached the subject. Only 16% of respondents had ever discussed end-of-life care with their health care provider, and 28% reported that a conversation with their doctor would be helpful for their advance care planning.

• 35% of participants had never had an end-of-life care conversation while an additional 30% had not discussed it in the past year.

• 35% of respondents indicated that more information about Advance Directives would help them and 26% requested educational sessions.

• The vast majority of participants have significant worries about end-of-life care regardless of whether they are having end-of-life conversations.

• The results of our survey may not be representative of the surveyed population due to a low response rate, n= 43, and possible selection bias such that people with some previous knowledge of Advance Directives may have been more likely to fill out the survey distributed on this topic.

Lessons Learned

• Barriers to completing Advance Directives in this population are largely due to a lack of knowledge about what Advance Directives are.

• Providing information about Advance Directives should be the responsibility of health care professionals.

• Conversations about end-of-life care initiated by health care providers have the potential to help improve Advance Directive completion rates.

References


Emergency Department Use
Among Vermont Homeless Families
Ameli, J; Crook, E; Kennedy, A; Gray, M; Sutherland, J; Thomas, J; Chi, G; Farnham, P; Smith, L; Hawkins, A

Background
Committee on Temporary Shelter (COTS) houses homeless individuals and families from the Burlington area. COTS believes that a high proportion of their residents use the Fletcher Allen Health Care Emergency Department (FAHC ED) for their health care more frequently compared to the general population. There are many other primary care services offered in the Burlington area, such as Safe Harbor Clinic, Community Health Center, and private offices, which are more appropriate for non-emergent health concerns and are readily accessible to the homeless population. By surveying the population of homeless families in Burlington and conducting a focus group with the COTS staff, we hoped to discover the reasons for ED usage, potential barriers to primary health care, and any possible changes that could ameliorate the health care of this population.

Methods
This study was administered through COTS in Burlington, VT. It was targeted at homeless families living in the shelter, and included multiple choice and write-in questions about their use of the ED. Questions were based on background research from previous studies dealing with ED usage by homeless individuals, and from consulting staff from Safe Harbor Clinic, Community Health Center, and COTS. The survey also allowed for multiple ED visits by multiple family members. We consulted a statistician for advice on formatting and question design. Surveys were taken to COTS and given to staff to distribute to families at the shelter during weekly required meetings. We also held focus groups with the staff at COTS to discuss perceived use of the ED by the resident families. We received 12 completed surveys in total, encompassing 35 of 70 people living at the shelter. Given the narrow target population to families, it was not possible to obtain a larger sample size.

Results

<table>
<thead>
<tr>
<th>TABLE 1: Sample Demographics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Total #</td>
</tr>
<tr>
<td>% Females</td>
</tr>
<tr>
<td>Average Age</td>
</tr>
<tr>
<td>% Completed High School</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE 2: Healthcare-Insurance and Utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>% Insured</td>
</tr>
<tr>
<td>% with PCP</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE 3: ED Utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td># Visits</td>
</tr>
<tr>
<td>Mean Severity</td>
</tr>
<tr>
<td>Example Reasons</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE 4: PCP Utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td># Visits</td>
</tr>
<tr>
<td>Mean Severity</td>
</tr>
<tr>
<td>Example Reasons</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Discussion
The results of our study shed light on the medical needs of Burlington’s homeless family population. We hypothesized that the Burlington homeless population misused the ED because of multiple factors: lack of insurance, primary care, and understanding of proper ED usage. The study showed instead that most families understood that the ED was for emergencies only, had insurance, and had a primary care provider. A theme that emerged from the focus group was the issue of proximity and transport. COTS offers bus vouchers for primary care visits whereas it offers taxi vouchers for ED visits. This may be influencing more homeless families to go to the ED, which is an issue that could be investigated further.

Conclusion
Homeless families have different medical needs and behaviors than homeless individuals. They tend to have insurance, a primary care provider, and have medical needs focusing on their dependents. Misuse of the ED by homeless families may be a misconception. However, possible misuse could be due to proximity issues or voucher incentives. Homeless families seem to understand the proper use of the ED, and qualitatively, use the ED only for emergencies.

References
Assessing Barriers to Community Pediatric Dental Needs
Elisabeth Anson¹, Aaron Burley¹, Samantha Couture¹, Katherine Irving¹, Stephen Morris¹, Darryl Whitney¹, Pam Fenimore², Jill Jemison¹
University of Vermont College of Medicine¹ and Ronald McDonald House²

Introduction
Oral health is an often overlooked aspect of healthcare with many effects on an individual’s well-being. Dental care is the most common chronic disease in children, and most dental problems are preventable. Barriers to accessing dental care for low income children include: oral health beliefs of parents, transportation issues, and difficulty locating providers who accept Medicaid (1, 2). Investigation of the pediatrician’s role showed an increase in dental visits among children who were recommended for care by their primary care providers (3).

Recent data indicates that 67.1% of Vermont Medicaid enrolled children received dental care within one calendar year (4). While indicating a gap in services, this is the highest rate in the U.S. A comprehensive national survey found that 85% of Vermont children received preventive care in the past year (5), while recent state data shows that 18% of Vermont children on Medicaid and 16% of children overall have untreated dental decay (6). In 2008, The Ronald McDonald House Charities, along with the Health Center of Plainfield, implemented the Vermont Ronald McDonald Care Mobile (RMCM), a traveling dental clinic providing dental care for Vermont’s underserved children. In one year, the RMCM visited 15 Vermont schools and treated 214 children, only 9% of the 2400 children projected. The RMCM currently serves sites in three Counties: Grand Isle, Orange, and Lamoille. The objective of our study was to investigate barriers to access to Dental care among Vermont children, with particular regard to the RMCM. The underutilization of the RMCM was assessed by researching current data on Vermont oral health and by surveying overall attitudes toward both the RMCM and pediatric dental care in Vermont.

Methods
A combination of surveys and standardized interviews were used to collect data for this project:

- A survey assessing satisfaction with the RMCM and general attitudes toward pediatric dental care was distributed to all parents at Alburgh Elementary and Bradford Elementary schools. Survey questions focused on children’s current and past dental care, use of the RMCM, satisfaction with RMCM dental services, and opinions about the Mobile’s visits to school settings.

- A standardized telephone interview was conducted with each school nurse at the school sites visited by the RMCM. Familiarity, satisfaction, and areas for improvement with the RMCM were assessed.

- A survey assessing attitudes toward the RMCM and opinions of availability of pediatric dental care in Vermont was distributed to Vermont dentists. A telephone interview was also conducted with a Vermont dentist discussing her experiences with the RMCM services.

- The RMCM and its services were presented to Vermont pediatricians at the Vermont Chapter of the American Academy of Pediatrics: Fall Meeting. A survey assessing pediatric dental care in Vermont and potential Vermont pediatric involvement with the RMCM was conducted.

Results
"We all noticed so many of our kids were walking around with huge smiles after their visit. It has made such a difference for some families’ self-confidence.”

School Nurse

Vermont Oral Health Initiatives
- Vermont exceeds Healthy Vermont 2010 oral health goals.
- Among National leaders in oral health access and positive oral health outcomes for children of all incomes.

Pediatricians
- Impressed with dental services provided by the RMCM and that the program is gaining momentum as word spreads.

Dentists
- Dentists see value in education, screening, and referral services.

Parents
- Those that have used the RMCM are satisfied with the service.

Recommendations
Focus on high risk groups
- Target 1-5 year old population & those without a dental home

Broaden the scope and support of outreach efforts.
- Collaborate with pediatricians.

Improve collaboration, communication, and intake process
- Streamline the registration process and forms

Communicate with local dentists
- Determine from dentists the needs of specific communities

Reduce overlap with existing strategies designed to reach underserved children

References
Factors Identified by Lapsed Donors that Might Influence Donor Return

Buckley, K.1, Jafferji, M.1, Larochelle, M.1, Mook, L.1, Pantel, H.1, Sturgill, L.1, Viethralter, L.1, Dembeck, C.2, Fenrette, C.2, Carney, J.1, Fung, M.K.1
1 University of Vermont College of Medicine, Burlington, VT, 2 American Red Cross- Northern New England Region, Burlington, VT

Introduction

The Burlington Chapter of the American Red Cross estimates that 8,000 donors a year become “lapsed,” or fail to return for further donation. To better target this population and retain current donors, it is essential to identify reasons for lapsed donation.

Several studies have been conducted on the barriers to retaining blood donors, revealing these common factors: past physical reactions, convenience, previous deferrals, lack of awareness, medical reasons, time, satisfaction with the experience, too impersonal, and personal benefit.

While many studies have identified reasons for lapsed donation, the majority have not used free text as their data source, have been conducted in a wide range of geographic locations not specific to Vermont residents, and have focused on reasons for discontinuing donations, rather than positive factors. Using free text limits the question bias and eliminates constraints that predefined answers enforce.

In 2007, Balderama et al. conducted a study identifying common motivations for donating blood, which included an unanalyzed free text portion. We used this free text to answer the question, “What factors identified by lapsed donors might influence donor return?”

Methods

An anonymous survey of 1668 randomly selected lapsed blood donors from Burlington chapter of American Red Cross (900 general lapsed, 768 disaster) was mailed in Fall 2007. A lapsed donor was defined as a subject who has donated in the past, but has not donated for at least 2 years. The survey contained 26 questions (19 5-point Leikert scale, 4 demographic, 2 open ended text) which assessed subject’s motivators, barriers to blood donation, and some demographic information.

In the primary analysis, free text responses were assigned to pre-defined categories based on key phrases and words (see Appendix A for categories and key phrases). Each response was categorized by two independent research teams. 28 percentage of respondents citing each primary category and primary category were assigned to pertinent subcategories and analyzed using different statistical methods.

Results

Study results were similar to previous studies, for example Duboz et al., found that medical reasons were the most important factor influencing donor return, followed by convenience and fear respectively.

Discussion

Study limitations:
- Interpretation of free text presents the potential for bias
- Categorization of free text may result in misinterpretation or misrepresentation of donor responses

Potential ways to increase donor return:
- Education and awareness about medical reasons that disqualify potential donors
- Travel restrictions – locations that prohibit donation
- Time periods of ineligible after traveling to certain parts of the world
- Medication restrictions
- Health restrictions
- Efforts in improving the experience of giving blood:
  - Ability to request a more skilled phlebotomist for donors with difficult veins
  - Provide information regarding potential side effects from donation and how to cope with or prevent them (dizziness, fatigue, etc.)
- Decreased length of donation:
  - Reduced wait time for repeat donors
  - Agenda screen as first step

Appendix

Factors

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenience</td>
<td>Long wait in donation center, difficulty of procedure</td>
</tr>
<tr>
<td>Recruitment</td>
<td>Long wait in donation center, difficulty of procedure</td>
</tr>
<tr>
<td>Process Oriented Measures</td>
<td>Long wait in donation center, difficulty of procedure</td>
</tr>
</tbody>
</table>

Study results were similar to previous studies, for example Duboz et al., found that medical reasons were the most important factor influencing donor return, followed by convenience and fear respectively.

Study limitations:
- Interpretation of free text presents the potential for bias
- Categorization of free text may result in misinterpretation or misrepresentation of donor responses

Potential ways to increase donor return:
- Education and awareness about medical reasons that disqualify potential donors
- Travel restrictions – locations that prohibit donation
- Time periods of ineligible after traveling to certain parts of the world
- Medication restrictions
- Health restrictions
- Efforts in improving the experience of giving blood:
  - Ability to request a more skilled phlebotomist for donors with difficult veins
  - Provide information regarding potential side effects from donation and how to cope with or prevent them (dizziness, fatigue, etc.)
- Decreased length of donation:
  - Reduced wait time for repeat donors
  - Agenda screen as first step

Appendix

Factors

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenience</td>
<td>Long wait in donation center, difficulty of procedure</td>
</tr>
<tr>
<td>Recruitment</td>
<td>Long wait in donation center, difficulty of procedure</td>
</tr>
<tr>
<td>Process Oriented Measures</td>
<td>Long wait in donation center, difficulty of procedure</td>
</tr>
</tbody>
</table>

Study results were similar to previous studies, for example Duboz et al., found that medical reasons were the most important factor influencing donor return, followed by convenience and fear respectively.

Study limitations:
- Interpretation of free text presents the potential for bias
- Categorization of free text may result in misinterpretation or misrepresentation of donor responses

Potential ways to increase donor return:
- Education and awareness about medical reasons that disqualify potential donors
- Travel restrictions – locations that prohibit donation
- Time periods of ineligible after traveling to certain parts of the world
- Medication restrictions
- Health restrictions
- Efforts in improving the experience of giving blood:
  - Ability to request a more skilled phlebotomist for donors with difficult veins
  - Provide information regarding potential side effects from donation and how to cope with or prevent them (dizziness, fatigue, etc.)
- Decreased length of donation:
  - Reduced wait time for repeat donors
  - Agenda screen as first step

Appendix

Factors

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenience</td>
<td>Long wait in donation center, difficulty of procedure</td>
</tr>
<tr>
<td>Recruitment</td>
<td>Long wait in donation center, difficulty of procedure</td>
</tr>
<tr>
<td>Process Oriented Measures</td>
<td>Long wait in donation center, difficulty of procedure</td>
</tr>
</tbody>
</table>
Introduction
Nationally, childhood immunizations have proven themselves invaluable in preventing contagious diseases and their associated morbidity and mortality. Nonetheless, vaccines have become increasingly controversial, with a growing number of parents refusing to vaccinate their children. Primary reasons given for vaccination refusal include fears of side effects and the belief that the target diseases are not harmful. Those parents who refuse to vaccinate their children generally have higher levels of education and income. An additional population of unvaccinated children who have received limited recommended vaccinations has been identified and often comes from a lower socioeconomic level. Unimmunized children have been associated with recent disease outbreaks, placing other individuals at risk and increasing the controversy about childhood vaccinations. Nationally, Vermont has one of the highest rates of unvaccinated children with recent data showing these rates are continuing to increase.

Objectives
• To assess parents’ attitudes and behaviors about childhood vaccinations.

Methods
• 1,614 surveys were mailed to caregivers of children ages zero to five in the Women Infant and Children’s Program at the Barre and Morrisville district health offices.
• Caregivers ranked their confidence or concern about:
  • knowledge of children’s healthcare
  • health benefits of immunizations
  • the risk their child may contract an infectious disease
• Caregivers were asked about vaccination safety concerns
• Caregivers were asked if their child was current on vaccines, reasons why not, and intent to vaccinate in the future.
• Results were summarized as percentages and analyzed using multivariate regression (SPSS v. 19) to assess predictor-outcome relationships (p<.05).

Results
• 386 surveys were returned
• 82% of respondents said their child(ren) had received all the recommended vaccinations for their age.
• As single predictors, younger respondent age (≤30) and lower education level (some college or less) were more likely to report their children as current on vaccinations (p<.01 and p<.01, respectively).
• Having children current on vaccinations was significantly associated with high rating of child healthcare knowledge (p<.01) and confidence about the safety of the immunizations (p<.01).
• Intent for future vaccination was predicted by high knowledge about child healthcare (p<.005) and confidence about the safety of immunizations (p<.019).

Discussion
• Our study supports previous literature that vaccine safety and the effect of multiple vaccinations administered during a single visit are primary reasons why caregivers choose not to vaccinate.
• The link between vaccination and autism was a common concern among respondents despite numerous studies indicating no relationship.
• Respondents whose child was less likely to be current on vaccinations primarily sought information from the internet.
• For respondents whose child was current on vaccinations, the major sources of information were primary care providers and family.

Conclusions and Implications
• Caregivers reporting younger age and lower education level are associated with being up-to-date on their child’s vaccines. Those who reported higher confidence in child healthcare knowledge and/or safety of vaccinations were associated with higher rates of current vaccinations and intent to vaccinate in the future.
• Health campaigns to improve Vermont vaccination rates should counter misinformation concerning autism and safety with primary care providers playing a key role.
• These findings can be used for further inquiry to implement measures to improve immunization rates in Vermont.

References
Emergency and Scheduled Respite Care for Caregivers of Persons with Dementia: a Proposed Program

Carpinello, O.1; Collins, B.1; Covino, J.1; Fischer, D.1; Santos, A.1; Schoppel, K.1; Tadevosyan, A.1; Pendlebury, W., MD1; Martinez, L., RN2

1University of Vermont College of Medicine, Burlington, VT
2Visiting Nurse Association of Chittenden and Grand Isle Counties, VT

INTRODUCTION
Respite care is defined as providing the primary caregiver with relief or a reprieve from care commitments on a short-term or emergent basis. (cite 1) Despite a demonstrated interest (cite 2) in need for respite care programs, our research has shown that scarce resources exist via a statewide dementia respite program administered by Vermont’s five Area Agencies on Aging (cite 3). Grants are small and many families do not fall within the eligibility requirements. In FY2010, only 290 families across the state met eligibility requirements (physicians’ diagnosis of dementia, income less than 300% of poverty line, unpaid caregiver, primary residence in VT) and were awarded limited funding for the provision of outside care (up to $750.00 each). For many of these families, this money is typically used to provide substitute care when the primary caregiver is not available. To date, there is no true emergency respite program in place for caregivers. This has resulted in a strain on families and day facilities, particularly when situations arise in which a caregiver is unable to pick-up their family member due to an emergency situation. Our goal was to determine the feasibility of a respite program to address this need.

METHODS
We began with a literature review and discussions with key agencies invested in the well-being of patients with dementia and their caregivers. These agencies included: The Visiting Nursing Association (VNA), Dept. of Disabilities, Aging and Independent Living (DAIL), Vermont Chapter of Alzheimer’s Association, and the Vermont Area Agencies on Aging. Based on the input of existing community agencies, we drafted a program proposal for emergency and scheduled respite. Recognizing the paucity of funding sources as a chief limitation to current models, we developed a survey to assess the feasibility of a volunteer-based program. An electronic survey was sent via Survey Monkey to the volunteer pool at Fletcher Allen; members of the UVM community; program. An electronic survey was sent via Survey Monkey to the input of existing community agencies, we drafted a program

RESULTS

<table>
<thead>
<tr>
<th>Phase</th>
<th>Description</th>
<th>Cost Categories</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hourly</td>
<td>Program Administration (salary + overhead)</td>
<td>$61,114</td>
<td></td>
</tr>
<tr>
<td>Overnight</td>
<td>Gas Costs (est. 30 miles at 2.8 gallon at 4Xmth)</td>
<td>$2,688</td>
<td></td>
</tr>
<tr>
<td>Day</td>
<td>Food Costs (est. $20/day at 4X mth)</td>
<td>$960</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>$68,762</td>
</tr>
</tbody>
</table>

COMMUNITY RESOURCES AND POTENTIAL FUNDING

Potential Community Partners:
- Administration: Visiting Nurse Association of Chittenden and Grand Isle Counties
- Training:
  - Elderwise System of Caregiving: adaptation of current 70 hour curriculum geared to non-medical caregivers.
  - Development of standardized reporting and medication forms for consistent volunteer documentation and reporting to families. In addition, background checks could be provided through this service.
- Alzheimer’s Association: classroom and online training program

CONCLUSION
The results from our survey demonstrate feasibility for a volunteer-based program. Of 95 responses to our survey, 71 individuals responded that they would be willing to volunteer. Within that group, 42 individuals were willing to volunteer with expenses paid and an additional 29 were willing to participate if provided a nominal fee in addition to their expenses (Table 1). Additionally, we surveyed willingness to participate in a training program and background check (100%), interest in coverage of emergency and/or scheduled respite care (graph 1), timing of care (chart 1), regular commitments (chart 2), and donated hours (graph 2).

PROPOSED PROGRAM
Based on our results and investigations into local resources we would propose the following program and community partners:

Model
- Provision of service: < 72 hours for on-call emergency care or scheduled respite
- Program Administration by the Visiting Nurse Association of Chittenden and Grand Isle Counties
- Utilization of community volunteers
- Background Checks
- Training Program
- Reimbursement of out-of-pocket expenses
- Specialized training in caring for patients with dementia

Our proposed budget includes the costs of annual administrative overhead (VNA), training (Elderwise), and estimated annual reimbursement costs for a pilot of 20 volunteers.

COMMUNITY RESOURCES AND POTENTIAL FUNDING

Potential Community Partners:
- Administration: Visiting Nurse Association of Chittenden and Grand Isle Counties
- Training:
  - Elderwise System of Caregiving: adaptation of current 70 hour curriculum geared to non-medical caregivers.
  - Development of standardized reporting and medication forms for consistent volunteer documentation and reporting to families. In addition, background checks could be provided through this service.
- Alzheimer’s Association: classroom and online training program

CONCLUSION
The results from our survey demonstrate feasibility for a volunteer-based program. Of 95 responses to our survey, 71 individuals responded that they would be willing to volunteer. Within that group, 42 individuals were willing to volunteer with expenses paid and an additional 29 were willing to participate if provided a nominal fee in addition to their expenses (Table 1). Additionally, we surveyed willingness to participate in a training program and background check (100%), interest in coverage of emergency and/or scheduled respite care (graph 1), timing of care (chart 1), regular commitments (chart 2), and donated hours (graph 2).

PROPOSED PROGRAM
Based on our results and investigations into local resources we would propose the following program and community partners:

Model
- Provision of service: < 72 hours for on-call emergency care or scheduled respite
- Program Administration by the Visiting Nurse Association of Chittenden and Grand Isle Counties
- Utilization of community volunteers
- Background Checks
- Training Program
- Reimbursement of out-of-pocket expenses
- Specialized training in caring for patients with dementia

Our proposed budget includes the costs of annual administrative overhead (VNA), training (Elderwise), and estimated annual reimbursement costs for a pilot of 20 volunteers.

COMMUNITY RESOURCES AND POTENTIAL FUNDING

Potential Community Partners:
- Administration: Visiting Nurse Association of Chittenden and Grand Isle Counties
- Training:
  - Elderwise System of Caregiving: adaptation of current 70 hour curriculum geared to non-medical caregivers.
  - Development of standardized reporting and medication forms for consistent volunteer documentation and reporting to families. In addition, background checks could be provided through this service.
- Alzheimer’s Association: classroom and online training program

CONCLUSION
The results from our survey demonstrate feasibility for a volunteer-based program. Of 95 responses to our survey, 71 individuals responded that they would be willing to volunteer. Within that group, 42 individuals were willing to volunteer with expenses paid and an additional 29 were willing to participate if provided a nominal fee in addition to their expenses (Table 1). Additionally, we surveyed willingness to participate in a training program and background check (100%), interest in coverage of emergency and/or scheduled respite care (graph 1), timing of care (chart 1), regular commitments (chart 2), and donated hours (graph 2).

PROPOSED PROGRAM
Based on our results and investigations into local resources we would propose the following program and community partners:

Model
- Provision of service: < 72 hours for on-call emergency care or scheduled respite
- Program Administration by the Visiting Nurse Association of Chittenden and Grand Isle Counties
- Utilization of community volunteers
- Background Checks
- Training Program
- Reimbursement of out-of-pocket expenses
- Specialized training in caring for patients with dementia

Our proposed budget includes the costs of annual administrative overhead (VNA), training (Elderwise), and estimated annual reimbursement costs for a pilot of 20 volunteers.

COMMUNITY RESOURCES AND POTENTIAL FUNDING

Potential Community Partners:
- Administration: Visiting Nurse Association of Chittenden and Grand Isle Counties
- Training:
  - Elderwise System of Caregiving: adaptation of current 70 hour curriculum geared to non-medical caregivers.
  - Development of standardized reporting and medication forms for consistent volunteer documentation and reporting to families. In addition, background checks could be provided through this service.
- Alzheimer’s Association: classroom and online training program

CONCLUSION
The results from our survey demonstrate feasibility for a volunteer-based program. Of 95 responses to our survey, 71 individuals responded that they would be willing to volunteer. Within that group, 42 individuals were willing to volunteer with expenses paid and an additional 29 were willing to participate if provided a nominal fee in addition to their expenses (Table 1). Additionally, we surveyed willingness to participate in a training program and background check (100%), interest in coverage of emergency and/or scheduled respite care (graph 1), timing of care (chart 1), regular commitments (chart 2), and donated hours (graph 2).

PROPOSED PROGRAM
Based on our results and investigations into local resources we would propose the following program and community partners:

Model
- Provision of service: < 72 hours for on-call emergency care or scheduled respite
- Program Administration by the Visiting Nurse Association of Chittenden and Grand Isle Counties
- Utilization of community volunteers
- Background Checks
- Training Program
- Reimbursement of out-of-pocket expenses
- Specialized training in caring for patients with dementia

Our proposed budget includes the costs of annual administrative overhead (VNA), training (Elderwise), and estimated annual reimbursement costs for a pilot of 20 volunteers.
Introduction:
A concussion is a type of traumatic brain injury (TBI) typically caused by biomechanical forces inflicted on the head that change the way the brain works. Concussions can also result from a blow elsewhere in the body causing an impulsive force transmitted to the head. These types of injuries often involve a sudden onset of neurolologic function impairment such as confusion, amnesia, or loss of consciousness that quickly dissipates and is generally not life-threatening. Unfortunately, these seemingly “mild” symptoms have led numerous primary care providers to underestimate its potential risks, often leading to inadequate evaluation, premature return to play, and poor psychological management. Complications of severe or repeated concussions include migraines, depression & mood changes, sleep disorders, convulsions, coma, and in some instances even death. The goals of our study were to evaluate public awareness and knowledge of concussion, identify common misconceptions, assess barriers to proper management, and propose uniform guidelines for education, prevention, diagnosis, and treatment to be used in the Vermont school system.

Methods:
Survey Design: A 14-question survey was designed in order to assess community member’s knowledge and attitudes about concussion and the treatment of concussions in Middle School and High School athletes. Our target population included parents, coaches, athletic trainers, teachers, school nurses, and health care providers who are associated with students in the Chittenden East Supervisory Union school district.

Data was collected using an online-based survey website called Survey Monkey, and also by administering a paper form of the survey to parents and coaches who attended a Concussion Meeting that took place at Mount Mansfield Union High School. The online survey was sent to coaches and parents via an e-mail which contained a link to the survey. In order to include physicians and other health care practitioners in the survey, we called, faxed and emailed 11 local pediatricians and family medicine offices to encourage them to take part in our survey.

The paper surveys that were filled out at the Concussion Meeting and via fax by Physicians were entered into Survey Monkey in order to complete all of the results into one database.

Discussion/Conclusion:
There are many states within the US that have passed laws relating to concussions in high school athletics. The results of our survey highlight some very important points about sport-related concussions in the Chittenden East Supervisory Union:

69% of those surveyed strongly agreed, or agreed that there should be a uniform guideline for the management of sport-related concussions in the CESU.

97% of those surveyed strongly agreed, or agreed that there should be a uniform guideline for the management of sport-related concussions in the CESU.

There is a wide range of knowledge on how to detect a concussion based on the early and late symptoms.

67% would like more information on the detection/management of concussions.

From the results of our survey, nearly all respondents in the CESU support a standardized approach to the management of sport-related concussions. From our research, we recommended this guideline include specific instructions pertaining to:

1. Coach and Student Athlete (and possibly parent) education about concussion prior to the start of the sport season.
2. What to do if a player is suspected of receiving a concussion.
3. When a player is allowed to return to play after being diagnosed with concussion.

With the implementation of such a protocol, there would be no ambiguity about when and how to take action if a player receives a head injury. The hope is that this will prevent further head injuries to those already injured, and allow the injured player to get back into the game as soon as he/she is healthy and ready. We recommend using evidence based guidelines, such as the ones recommended by Fletcher Allen Health Care. It is important to remember the most crucial rule when managing concussions: "When in doubt, leave them out."

References:

2. Makdissi, Michael, David Darby, Paul Maruff, Anthony Ugoni, and Peter Brukner. "Natural History of Concussion in Sports: Evidence Based Guidelines, such as the ones recommended by Fletcher Allen Health Care. It is important to remember the most crucial rule when managing concussions: "When in doubt, leave them out."


9. Diamond, S. "I believe the school district should have a uniform guideline on how to recognize, treat and manage concussion."
Menu Planning and Grocery Shopping for People Living with Psychiatric Disabilities

Nkem Aziken¹, Michael Boggs¹, Leslie Bradbury¹, Christopher Cahill¹, Sara Higgins¹, Lynsey Rangel¹, Sandra Steingard MD 1, 2
¹University of Vermont College of Medicine and ²HowardCenter

INTRODUCTION

The survey showed that the majority (92%, 31/34) want to eat healthier.

METHODS

Literature review and research assessed the problem and examined evidence based interventions that could aid our resource development.

Research and information was collected from HowardCenter clients with the permission of UVM College of Medicine and associated healthcare providers.

The survey assessed the population’s available finances, knowledge of nutrition, and willingness to change current habits. Key questions included:

- What do you think eating healthy means?
- How much money do you spend on food every week?
- What problems keep you from eating more healthy foods?
- What cooking appliances do you have access to?

The survey was administered on paper at the HowardCenter and Lakeview House. Data was analyzed using Microsoft Excel.

RESULTS

34 surveys were collected from a population of 650 clients of HowardCenter’s Community Support Program (~5% of the total group).

The survey showed that the majority (92%, 31/34) want to eat healthier. However, the majority (82%) also had difficulty finding the time, energy, or money to do so.

CONCLUSION

The survey results identified several barriers to cooking and eating healthy such as finances and meal time preparation. Based on the needs and desires of this population, we created a resource titled, Cooking with Wholesome Food: Quick, Simple, and Affordable for Everyday of the Week. It emphasizes eating healthy on a low budget.

The book contains a week’s worth of recipes for breakfast, lunch, and dinner, shopping lists, financial budgets, healthy snacks, and suggestions for eating and living healthy.

Our research group advocates further research to be conducted on the population subset to assess the use and efficacy of our recipe book.

references

Assessing Barriers to Healthy Living in Economically Challenged Communities of the Greater Winooski Area

dil Aktana, Catherine E. Nabera, Shetal M. Patel, Phillip R. Perrine, Joshua J. Pothen, Alexandra L. Swartz, Janice Gallant, Hal Colston

University of Vermont College of Medicine, Burlington, VT; NeighborKeepers, Winooski, VT

Introduction

NeighborKeepers (Winooski, VT) is a non-profit, anti-poverty organization that focuses on building supportive friend networks that direct families and individuals toward the resources they need to improve their health, get training, and education, find jobs, and discover a sense of purpose and belonging. Keeping with the NeighborKeepers philosophy of giving those in need the tools to help improve their own circumstances, our project goals were to:

• Engage community members
• Connect individuals with community resources geared toward healthy living and improved healthcare access
• Identify health needs and potential areas for intervention or further inquiry

Methods

We organized a community health resource fair, “Community Health Connections,” at the O’Brien Community Center in Winooski. In order to reach the larger NeighborKeepers community, we:

• Promoted the event at community dinners over several months
• Encouraged members to invite their friends and families
• Advertised through fliers posted around downtown Winooski

The survey administered at the fair was adapted from the Fletcher Allen 2007 Community Needs Assessment. Participants were asked to check up to 3 items in each of the 12 categories, covering health, wellness, and community concerns. We obtained a Nepalese translation for the Bhutanese population. As an incentive to complete the survey, we raffled off two $25 gift certificates to City Market.

Results

Attendance at the health fair was estimated at ~150 adults and children. The data analysis revealed specific concerns regarding health/insurance/dental insurance (41%), high cost of health insurance (22%), lack of exercise (16%), barriers to exercise (41%), lack of affordable housing (28%), employment opportunities (23%), mental health (28%), and substance abuse (26%).

Discussion

• The VNA flu clinic was an enormous success - 108 adults and children received free flu shots.
• The large Bhutanese turnout (not necessarily representative of NeighborKeepers) may have been due in part to our prior involvement in health education outreach for their community.
• Advertising through online forums and electronic newsletters may be helpful for recruiting greater participation from community members.
• The length and complexity of the survey were barriers for both native and non-native English speakers.
• Language and literacy barriers made it difficult for Bhutanese participants to take full advantage of the resources available at the fair.

Lessons and Future Directions

• Overwhelming demand for flu shots suggests significant need for accessible, affordable clinics in Winooski.
• Flu clinics can be used as opportunities to provide health education in areas of concern for this community (e.g. physical activity, substance abuse, health care access).

Acknowledgements

Thanks to Khem Kuikel, Healthy Living, City Market, Community Health Center, 3Squared/VT, BkRecycle VT, Ladies First, LVM Substance Abuse Clinic, Fletcher Allen Health Access Program, the VT VNA, and Africa Jamono.

References

Exploration into Expanding the Burlington SASH (Seniors Aging Safely at Home) Program

Areson R.1, Dindwall V.1, Duncan C.1, Hayes E.1, Keller E1., Kuo T.1, Thach S.1, Varga S.1, Delaney T.1, Dugan M.2, Berry P1.

University of Vermont College of Medicine1, Cathedral Square Corporation2

Background
In 2009, the Cathedral Square Corporation partnered with community provider organizations* to design a model for in-home services and support known as Seniors Aging Safely at Home (SASH). This comprehensive program, implemented at Heineberg Senior Center in the New North End of Burlington, VT, combines support, health education, and social activities to create a safe and fulfilling environment for participants. Cathedral Square plans to extend their SASH program to New North End (NNE) seniors residing in their own homes. However, the current and future needs of the NNE senior population (defined here as individuals age 50 and older) are not well known.

PROJECT AIM
We have collaborated with Cathedral Square to better determine the needs of the NNE senior population and investigate how the SASH program compares to other aging community models already in existence. NORC (Naturally Occurring Retirement Communities) and Villages are models growing in popularity across the nation, undoubtedly due to people’s desire to age independently in their own homes.

NORCs are communities in which the population has aged in place, resulting in a high proportion of seniors living in one area. Neighborhoods with this dynamic have begun to organize programs which provide a variety of services to seniors, including yard-work, educational workshops, social opportunities, and access to health care services. Village models are similar, but tend to be designed more intentionally as senior-supporting neighborhoods rather than arising naturally as the local population ages. By looking into current community models and by investigating the needs of the NNE senior population, Cathedral Square will be further equipped to offer important services to those who are interested.

Methods
Data collection was divided among the following:
• Survey distributed to Burlington’s NNE residents age ≥ 50
• Personal interviews conducted with local health providers
• Personal interviews with senior community members

SURVEY DESIGN
• 41 questions
• Assessed demographics, current lifestyle, and desire/need for assistance
• Based on suggestions found at www.norcblueprint.org
• Distributed in two ways:
  1) By hand—108 surveys total placed at a local pharmacy, recreation center, church, senior center (each with drop boxes for deposition of completed surveys), or distributed to voters on voting day.
  2) By third party distribution—8 electronic surveys emailed by request

RESULTS

Survey Question [%]
- Adequate exercise options: 70%
- Adequate post-hospital care: 80%
- Need help with meal preparation: 8%
- Able to get to doctor's office: 98%
- Willing to pay for SASH service: 70%
- Support in close proximity: 91%
- Days of absence: 15
- Median age: 74
- Female: 26%
- Male: 74%
- Fine to Excellent Health: 55%
- In Fair to Poor Health: 45%
- Years in Community: 34
- Mean Age: 74

Types of Services Interested in at Home

Senior Interest in Specific Services

- Companion care: 82%
- Meal assistance: 42%
- Home care services: 62%
- Home maintenance services: 35%
- Transportation services: 50%
- Help with shopping: 92%
- Help with yard work: 42%
- Veterinary services: 25%
- Case manager: 56%
- Financial services: 20%
- Social opportunities: 60%

Survey Analysis
Chi-Square Tests Done: Proximity of Support and Interest in SASH had no association (X^2 = 2.41, DF = 1, p >0.12); Age and Interest in SASH had no association (X^2 = 2.41, DF = 1, p >0.12) ; Age and Support in Close Proximity had no association (X^2 = 1.91, DF = 1, p >0.16); Gender and Support in Close Proximity had no association (X^2 = 0.01, DF = 1, p >0.95); Gender and Interest in SASH had no association (X^2 = 0.01, DF = 1, p >0.95).

Discussion
Many NORC and Village models throughout the nation have been successful in creating senior-congregative care services. It is important to note that these communities are not solely designed for seniors who require a lot of help in order to remain in their homes, but they provide additional services (grocery shopping, transportation, yard-work, etc.) to those seniors who are more independent. According to current literature, many seniors emphasize access to reliable, consistent resources for home maintenance is paramount to their ability to continue living in their own homes. Our survey results confirm a similar interest in these “congregate” services over more intensive health-related services.

Similar to the community providers’ perspectives, our survey results indicate that some seniors (but not all) anticipate future challenges. Also, most seniors (70%) reported their health as “fine to excellent.” To what degree this % represents the actual health status of the seniors is unclear. Research has shown that many older adults perceive their needs to be less than what they really are: if overall the survey groups view itself as relatively healthy, it may be more difficult for them to anticipate future needs and appreciate a community based SASH program could truly benefit them. This was substantiated by responses such as “[this is] not necessary at this time” or “[I am] not old enough yet.”

Study Limitations
• The survey did not clearly capture seniors’ projected concerns due to the wording of the questions.
• Our analysis lacked seniors most isolated from the community.
• The method of survey distribution was not consistent among all sites.
• Time constraints limited the number of community members that we could contact.

CONCLUSION
Our survey data and interviews support the establishment of a community based SASH program for seniors in the New North End. Among those interested are seniors of a wide range of age, health status, and social support. Allowing this population to safely and happily age in their own homes will require coordinated effort among a variety of organizations.

ACKNOWLEDGMENTS
A sincere thank you to the members of the SASH team at Heineberg Senior Housing — particularly Ken Bridges, Wendy Cribbins, and Paula Fitzgerald. Thank you also to city officials, Annette Monoso and to Dr. Frank Landry. Additional thanks to Aaron Hurwitz and Raj Chawla for their technical support. Last, but not least, a big thank you to all the area seniors that took the time to participate in this project.

6. Thomas, WH. Blanchard, JM. fine to Excellent Health 55 (70%) In Fair to Poor Health 45% Years in Community (SD) 34.68 (21.85) Mean Age Female (SD) 74.14 (9.64) Mean Age (SD) 74.12 (9.3) Support in Close Proximity 71 (91%) Days of absence 15 Median age 74 Gender: 26% Male: 74%
7. United Hospital Fund. NORC Blueprint. 4. adequate post-hospital care: 80%
10. Areson R.1, Dindwall V.1, Duncan C.1, Hayes E.1, Keller E1., Kuo T.1, Thach S.1, Varga S.1, Delaney T.1, Dugan M.2, Berry P1.

REFERENCES:
[1][2][3][4][5][6][7][8][9][10]...
Objectives
To determine if refugees completing a Medical Orientation Program for New Americans are better with several aspects of medicine in the US, such as making appointments; knowing more about diet and hygiene; and understanding the implications of mental and chronic illnesses.
To determine if Medical Passports provided to these individuals improve continuity of care are useful and effective.
To make recommendations for improvements to the Medical Orientation Program for New Americans to the Community Health Center of Burlington (CHCB).

Methods
Design a survey to determine whether the learning objectives of each of the Medical Orientation classes were met, and whether or not the Medical Passport met its goals.

Survey Example
When it’s not an emergency, who should you see when you’re sick?

Survey Questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minority (12/21 = 57%) knew an appointment with their own doctors if they are sick (versus going to the emergency room)</td>
<td>76%</td>
</tr>
<tr>
<td>Minority (16/21 = 76%) knew the meaning of chronic disease</td>
<td>76%</td>
</tr>
<tr>
<td>Majority receive help from English-speaking relatives in making appointments (14/21 = 67%)</td>
<td>76%</td>
</tr>
</tbody>
</table>

Recommendations
- Better differentiation about what does constitute an emergency.
- Decrease the size of the medical passports (already done).
- Remind people that while many may not be curable, they are treatable.
- Encourage more practice with verbal (English) assertions about health (making an appointment; or, saying “I am a diabetic”) so that New Americans have basic skills to inform people about their health when they do not have access to a translator.
- Make the clinical vignettes in the surveys (e.g. chest pain, child vomiting) more clearer.
- Clarify the consequences of a chronic disease.

Conclusion
The CHCB is dedicated to providing care to people who have a limited English language and reduced ability to pay.
Assuring that New Americans receive necessary health care, including primary and preventative care, is challenging.
Barriers to care may include administrative, cultural, language, knowledge, and transportation.
Efforts to improve health care access must focus on the specific needs of diverse populations.

Though it is clear that this population benefited from the Orientation, there are improvements that could be made for future sessions.

References
- Smith-Campbell B. Emergency department and community health center visits and costs in an uninsured population. J Community Health 2010; 02 September.
- Sullivan CH. Partnering with community agencies to provide nursing students with cultural awareness experiences and refugee health promotion access.
Introduction

• Autism spectrum disorders (ASD) are a group of related brain-based disorders that affect a child's behavior, social and communication skills.

• In 2009, approximately 1,000 Vermont students received special educational services for ASD.

• Puppets in Education (PiE) is a non-profit group that teaches kids how to keep themselves safe and healthy and to appreciate each other’s differences.

• PiE's Friend 2 Friend Program (F2F) addresses ASD in fun and interactive puppet and workshop presentations, promoting empathy for individuals on the autism spectrum by modeling, labeling, explaining and normalizing differences, and teaching prosocial communication and friendship skills.

• Last year, UVM COM students collaborated with PiE to determine how the use of puppets could best educate the community regarding ASD.

• This year our goals were to elicit:
  - the perceived effectiveness of current ASD education in the classroom;
  - the perceived effectiveness of including children with ASD in the classroom; and
  - the most important aspects of ASD to address in PiE’s Social Skills Curriculum.

Methods

A survey was emailed out to a total of 1,420 VT educators and 5,671 community members on 10/10/10, creating a total survey population of 7,091 individuals from all counties across the state of Vermont. Population surveyed:

1) Families with a child with ASD (ages 2 to adult)
2) Families without a child with ASD
3) Educational professionals

Data Analysis

• Quantitative data was analyzed using Chi² distribution and multinomial logistic regression where appropriate. Qualitative data (responses to open-ended survey questions) were evaluated using a simplified qualitative data analysis technique and included the reporting of trends.

Results

• Divisions were noted across all sampled populations on the topic of inclusion. Educational professionals discussed difficulties of knowing when and how to implement inclusive practices.

• While more educators than families felt the current approach to inclusion (encompassing children with differences/disabilities) was effective, all sample populations expressed a desire for more information and education on how to implement it effectively.

• While curricula for inclusion within the schools exist, parents of children with ASD feel that they are the main source of information on the disorder.

• There is a further need for ASD and social skills education.

• Issues with confidentiality were cited as a potential barrier to further curricular expansion.

• Educators felt more confident about their school’s ability to balance the needs of children with ASD and their peers than families.

• Families with ASD felt more confident than families without ASD addressing the topic of autism spectrum disorders with their child’s school.

• Families with ASD felt more confident addressing the topic of autism spectrum disorders than educators did addressing the topic with parents of typically developing peers.

• Educators who teach children with ASD felt more confident addressing ASD with parents.

• Families who felt that their school effectively included children with differences/disabilities were more likely to be confident in their school’s ability to balance the needs of children with and without ASD.

• As each child with ASD is different, having flexibility in structured support systems improves classroom behaviors for children with ASD.

• Families and professionals can share in the challenges and successes in educating children with ASD.

Discussion

Universally, parents and educators felt that more education was necessary to effectively work with students with ASD.

• There are curruculums currently available that teachers can adopt.

• Including works by Michelle Garcia Winner.

• The issue of confidentiality in the classroom becomes an issue when working with a child with ASD.

• Teachers and Parents need to work together to not inadvertently “out” a student with disability when presenting social skills programs.

• Families are the main source of information on Autism Spectrum Disorder in their schools.

• Effective communication between families and their teachers can help bridge the gap, and families should be involved in educating their teachers about the needs of their specific child.

• There is no “One-Size Fits All” approach to working with a student on the spectrum.

• Each student is different, programs need to be flexible and tailored to the individual child.
**Introduc**

Although 30-50% of Vermont citizens rely on private wells for drinking water, there is no state requirement for regular contaminant testing. As a consequence, it is possible that private well users may be exposed to a variety of potential health hazards, including bacteria, arsenic, fluoride, and radionuclides. Our group sought to better understand public awareness of testing recommendations, how often private well users have their wells tested, and what obstacles may be keeping them from doing so. With this information we hope to learn more about how Vermonters are using private wells, and how we can better serve public health in Vermont.

**Methods**

- Surveys were distributed at Department of Health local offices across the state, Vermont state voting locations, and at the Thomas Chittenden Health Center and were voluntarily completed in October and November, 2010.
- In total 284 surveys were included in the study, including 127 using private water sources.
- Graphs were created using Excel. Analytical statistics were completed using an online chi-square calculator from the University of Kansas.

**Results**

![Figure 1: Private Water Source Testing Frequency](image)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Less than Bachelor's Degree (n = 68)</th>
<th>Bachelor's Degree or More (n = 47)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>63 (90%)</td>
<td>17 (15%)</td>
</tr>
<tr>
<td>Every 5 Years</td>
<td>17 (15%)</td>
<td>Every Year</td>
</tr>
<tr>
<td>Every 10 Years</td>
<td>22 (19%)</td>
<td>Without Children (n = 36)</td>
</tr>
<tr>
<td>Every Year</td>
<td>12 (11%)</td>
<td>Without Children (n = 36)</td>
</tr>
</tbody>
</table>

- Yates chi-square = 6.732; Yates p-value = 0.009

![Figure 2: Testing by Children in the Household](image)

<table>
<thead>
<tr>
<th>Testing</th>
<th>Less than Bachelor's Degree (n = 68)</th>
<th>Bachelor's Degree or More (n = 47)</th>
</tr>
</thead>
<tbody>
<tr>
<td>With Children (n = 79)</td>
<td>8 (10%)</td>
<td>11 (15%)</td>
</tr>
<tr>
<td>Without Children (n = 36)</td>
<td>26 (73%)</td>
<td>10 (27%)</td>
</tr>
</tbody>
</table>

- Yates chi-square = 8.915; Yates p-value = 0.030

![Figure 3: Testing by Education Level](image)

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Less than Bachelor's Degree (n = 68)</th>
<th>Bachelor's Degree or More (n = 47)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than Bachelor's Degree</td>
<td>10%</td>
<td>Bachelor's Degree or More</td>
</tr>
<tr>
<td>Bachelor's Degree or More</td>
<td>90%</td>
<td>Without Children (n = 36)</td>
</tr>
</tbody>
</table>

- Yates chi-square = 5.627; Yates p-value = 0.018

![Figure 4: Reasons for Not Testing by Education Level](image)

- More educated populations may be more likely to rely on a landlord for testing, to not be concerned about water quality, and to be unaware of testing recommendations.
- Less educated populations may be more likely to rely on a landlord for testing, to not be concerned about water quality, and to be unaware of testing recommendations.

**Discussion**

- Our study shows that over half of private water users do not test their water, which puts them at risk of potential exposure to drinking water contaminants.
- Education level seems to play a significant role in water testing, awareness of testing recommendations, and the barriers to testing.
- Less educated populations may be more likely to rely on a landlord for testing, to not be concerned about water quality, and to be unaware of testing recommendations.
- According to the respondents, having free water testing and more information available through flyers and the internet would be most helpful.
- Study results indicate that additional education should be focused on households with children, as children may be especially vulnerable.
- Visible public education, specifically using flyers and internet, is needed.

**References**

Increasing Senior Enrollment in 3SquaresVT
Mohammed Almzayyen1, Mark Dammann1, Javier De Luca-Westrate1, William Jeffries1, Jeffrey McLaren1, Diana Mujalli1, Stell Patadji1, Melissa Romero1, Angela Smith-Dieng2
University of Vermont College of Medicine1, Hunger Free Vermont2

Background
Hunger Free Vermont’s mission is to feed more Vermonters, teach the community about healthy food and nutrition, and lead advocacy and education efforts to end hunger in Vermont. In Vermont, 11.4% of all seniors are considered food insecure. To address this issue, Hunger Free Vermont has taken on the task of increasing enrollment in 3 Squares Vermont, the state food stamp program. 68% of people in VT who are eligible for 3SqVT are enrolled. Surprisingly, only 29.2% of eligible seniors are enrolled.

Our study focuses on the leaders of community organizations who impact seniors. Through focus groups, we assessed their:
- Knowledge of 3SqVT program
- Knowledge of senior enrollment and food insecurity
- Ideas about the barriers leading to low enrollment
- Solutions

Methods
Focus group participants estimated the extent of food insecurity, 3SquaresVT eligibility, and 3SquareVT enrollment of Vermont seniors.

Results
"...I don't think people realize that 3 squares money is federal money that comes into VT that's not accounted for in the state budget, therefore if people realize that they can say "well, I'm doing my part to help VT's economy..."

Background
Most representatives from participating community organizations knew that the Food Stamp program in VT was rebranded as 3SquaresVT. However, most participants were unaware of specific eligibility requirements to obtain benefits. Surprisingly, despite the fact that most group participants work closely with seniors, they did not accurately estimate 1) The number of seniors who are food insecure in VT. 2) The number of seniors who qualify for 3SQVT benefits, and 3) The number of eligible seniors enrolled (Fig1).

We asked participants what they thought the barriers were for seniors not enrolling in 3SQVT. Each group constructed a list of barriers that they ranked starting with what they thought most adversely affected senior enrollment. When comparing the lists, we found that generational pride was the highest ranked barrier, which is consistent with previously published literature.

Methods
Focus groups were conducted with 34 invited organizations in three 90 minute focus groups of 4-9 participants; 15 standardized questions were discussed.

Data analysis
- Audio recording, data transcription, and observers.
- Solutions were categorized under one of three major categories: simplify application, educate, and advertise.

Solutions
- Simplify Application
  - Make application 1 pg with larger font
- Application Assistance
  - Home visits to help with application
  - Provide Registration help at grocery stores
  - Train family members to complete application
  - Provide transportation to application centers
  - Translate application
  - Host enrollment days
  - Application Help Line
- Increase Access
  - Include application with yearly tax forms
- Educate the Community
  - Educate Medical Centers about Hunger
  - Word of mouth/spread the word
  - Train caregiver network about program
  - Educational workshops for caregivers
  - Teach organizations about program
  - Provide online access to 3SQVT eligibility information
  - Hold staff meetings at health centers
  - Work with VT Medical Society to increase awareness
- Recruit
  - Senior advocates/champions
  - Politicians
- Family
  - Train caregivers
  - Train children of seniors
- Media
  - State-wide campaigning (how can enrollment help VT)
  - Social networks to reach out to children of seniors
  - Provide personal stories
  - Target radio stations
  - Rebrand the program
- Public Spaces
  - Flyers at post office, grocery store
  - Shopping bag stuffers
  - Change name of campaign (childhood hunger to seniors)

Discussion
Most representatives from participating community organizations knew that the Food Stamp program in VT was rebranded as 3SquaresVT. However, most participants were unaware of specific eligibility requirements to obtain benefits. Surprisingly, despite the fact that most group participants work closely with seniors, they did not accurately estimate 1) The number of seniors who are food insecure in VT. 2) The number of seniors who qualify for 3SQVT benefits, and 3) The number of eligible seniors enrolled (Fig1).

We asked participants what they thought the barriers were for seniors not enrolling in 3SQVT. Each group constructed a list of barriers that they ranked starting with what they thought most adversely affected senior enrollment. When comparing the lists, we found that generational pride was the highest ranked barrier, which is consistent with previously published literature.

Finally, each group brainstormed ways to increase enrollment. Our findings are summarized in Figure 2. According to results, leaders within the senior care community would benefit from additional education concerning 3SQVT. This could lead to increased senior enrollment and decreased senior food insecurity in Vermont.

Conclusion
There was a general lack of awareness about the extent of elderly food insecurity and participation in 3SQVT. Most participants underestimated or overestimated both issues. The top five barriers to low participation in 3SQVT were: generational pride, application difficulty, lack of awareness, insufficient advertising, and the assumption that they are ineligible. Solutions to increasing participation in 3SQVT consisted of: simplifying the application process, educating the community, and increasing exposure to the program.

Reference
Promoting Physical Activity and Nutrition in Adolescents

Bahadue F.1, Chang S.1, Clark B.1, Lindstrom V.1, Nyotowidjojo I.1, Rosenberg J.1, Smith A.1, Drucker N.1, Offer S.2

1University of Vermont College of Medicine, Burlington, VT; 2Greater Burlington YMCA, Burlington, VT

Introduction/Background

In the United States, childhood obesity has become the leading pediatric chronic disease. Increased caloric intake and decreased energy expenditure is hypothesized as contributing to the upward trend of obesity.1 Independent of adult weight, obese children have increased morbidity and mortality from metabolic syndrome as adults.2 Individuals engaging in exercise programs as short as 6 months have shown improvement in risk factors including body fat mass, waist/hip ratio, ambulatory systolic blood pressure, fasting insulin, triglycerides, and low-density lipoprotein ratio.3

In our study, adolescents were taught a foundation of health and well-being that incorporated regular exercise. Nutrition was taught through an evidence-based systems approach, including lessons about the cardiovascular, musculoskeletal, and gastrointestinal systems. Our aim was to improve adolescent food choices and increase physical activity through interactive educational sessions.

Methods

We held 6 teaching sessions for 11 middle school-aged children in an after-school program at the Greater Burlington YMCA. Each lesson consisted of:

• 30 minutes of organized exercise activities
• 30 minutes of systems- and nutrition-based education

Surveys were distributed to parents via paper copies and e-mail at the beginning and conclusion of the project.

Results

The 11 pre-intervention surveys showed this population generally made healthy nutritional choices and had good exercise habits. Most ate whole wheat bread and did not drink soda frequently. 64% of our adolescents ate 3 or more servings of fruit a day compared to survey results of Vermont youth, with 34% of students consuming 2 or more servings of fruit a day (Graph 1).4 Ten of our participants were at or near the American Academy of Pediatrics recommendation that children receive at least 60 minutes of physical activity a day (Graph 2).5 The survey revealed that students were curious about the healthfulness of their food choices as well as the workings of their bodies. Most did not skip meals or eat fast foods on a routine basis.

Only 2 follow-up surveys were received, precluding comment about possible alteration in healthy lifestyle habits resulting from the teaching sessions. Sample parent comments, such as: “Yes, he learned something: he has insisted that he needs vitamins and will randomly spit out facts about bones,” and “He loved it—should do more!” have led us to believe that this sort of educational session was beneficial.

Discussion

This study focused on increasing physical activity and health education to promote a healthier lifestyle. We were able to create a 6 week lesson plan that could easily be incorporated into a school curriculum. This sample group had fairly healthy lifestyles at baseline, and as a result, might not have benefited as much as a more diverse population. Fruits and vegetables were consumed frequently and almost all participants met or were near published recommendations for daily physical activity.

A small sample size combined with the difficulties of collecting follow-up surveys hampered assessment of our impact. Other challenges included an inability to directly measure the students’ knowledge of diet and nutrition, the lack of personal contact between researchers and parents, and an inconsistent sample population due to varied attendance at each session.

Recommendations

• Meet parents personally to discuss project: adds personal connection and motivation for survey completion
• Obtain IRB approval for future study: allows direct assessment of initial student knowledge and the impact of our teaching
• Implement program in a population with less healthy baseline lifestyle habits
• Investigate the development of this sample population’s healthy lifestyles and integrate lessons learned into future educational sessions

References