When Technology Meets Community: Implications of Genetic Testing in Eleuthera, Bahamas
Abby Weil, Leslie Marshburn, Katie Fincher, Nicole Dubruiel

Team Members, Schools/Disciplines
- **Abby Weil**, Emory School of Nursing, MSN Family Nurse Practitioner/ Certified Nurse Midwife
- **Leslie Marshburn**, Goizueta Business School and Rollins School of Public Health, Health Policy & Administration
- **Katie Fincher**, Rollins School of Public Health, Behavioral Sciences and Health Education
- **Nicole Dubruiel**, Emory School of Nursing, MSN Family Nurse Practitioner

Project Partners
- Bahamian Ministry of Health
- Cancer Society of The Bahamas & Ride for Hope
- Rotary Club of Eleuthera / Island Journeys
- South Eleuthera Emergency Partnership (SEEP)
- Developers Forum of Eleuthera

Background
- **BRCA1** and **BRCA2** (BRCA1/2) stand for breast cancer susceptibility gene 1 and breast cancer susceptibility gene 2, and are known tumor suppressors.
- A woman with the **BRCA1/2** genetic mutation has a 60% chance of breast cancer → 5X higher than average.
- Preliminary testing by Dr. Judith Hurley (Univ. of Miami) found 20% of Bahamian women with breast cancer had a BRCA1/2 mutation, double the highest rate in the world.
- Cancer diagnostic screening and treatment not currently available on the island of Eleuthera

Breast Cancer Knowledge Assessment:
- Collect information from community members regarding their knowledge and perceptions of breast cancer including the challenges they face in seeking care
- Develop educational resources related to breast cancer and genetic testing for an outreach program in conjunction with the Cancer Society of The Bahamas

Health Resource Planning Initiative:
- Understand resource challenges in seeking and providing health care on Eleuthera
- Provide recommendations to strengthen the care delivery model on Eleuthera

Project Timeframe
- **May - July 2010**: Data collection in Eleuthera
- **August - October 2010**: Data analysis, secure funding for continued trips
- **November - December 2010**: Design approach for educational program development
- **January 2011**: Share findings with local supporters and engage participating communities for feedback on identified educational needs and possible methods

Table 1: Key survey findings on breast cancer knowledge among study participants

<table>
<thead>
<tr>
<th>Knowledge Scale Item</th>
<th>Agree n (%)</th>
<th>Disagree n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lumps in the breasts that are cancer are usually painful</td>
<td>24 (39%)</td>
<td>38 (61%)</td>
</tr>
<tr>
<td>If a woman’s mother or sister had breast cancer, the woman is more likely to get breast cancer</td>
<td>58 (83%)</td>
<td>12 (17%)</td>
</tr>
<tr>
<td>Doctors and nurses are the only ones who can find a lump in your breast</td>
<td>5 (7%)</td>
<td>65 (93%)</td>
</tr>
<tr>
<td>A woman’s chance of surviving breast cancer is very low, even if it is found early</td>
<td>20 (29%)</td>
<td>49 (71%)</td>
</tr>
</tbody>
</table>

Project Goals

Expected Outcomes
- Build upon and improve community knowledge, available resources and health behaviors related to breast cancer:
- Synthesize qualitative and quantitative data on breast cancer prevention, detection and treatment with the community assessment of care resources and gaps
- Share results with project partners to strengthen the existing care resource network within Eleuthera through the expansion and development of culturally appropriate breast cancer education programs

Progress to Date
- Transcribed 7 focus groups and developed analysis plan
- Analyzed survey data on breast cancer knowledge
- Applied for funding through Ride for Hope, Bahamas, for team return trip and project continuation in January 2011

Next Steps
- Complete in-depth analysis of collected data and share results with community partners
- Discuss educational opportunities and methods together; return January 2011 to share findings and receive feedback on proposed education plan and health resource recommendations
- Continue collaborations between local partners and Emory students to refine materials and develop educational plan

Citations: