Nursing Workforce Emergency Preparedness Project:

SURVEY AND TRAINING OF INACTIVE NURSES

Office of Nursing Workforce, Research, Planning and Development
University of Vermont
College of Nursing and Health Sciences
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NURSING WORKFORCE EMERGENCY PREPAREDNESS PROJECT:

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Survey and Training of Inactive Nurses

Executive Summary

Problem Statement: How many inactive nurses are there in Vermont? How many inactive nurses are interested in re-entering nursing practice? Can inactive nurses in Vermont be tapped to create "surge capacity" in the event of a natural or man-made disaster?

Background: This project was funded by the Vermont Department of Health Office of Rural Health and Emergency Preparedness Division to answer these questions.

Methods: The 2004 Inactive Nurse Survey was mailed to 3,682 inactive nurses with Vermont addresses. A high rate of undeliverable surveys was expected due to change of address past the postal forwarding date, death, or moves out-of-state. Indeed, sixty percent (2,214) were returned "undeliverable" by the postal service; an additional three percent (110) were removed following phone calls from family members who indicated the former RN was deceased, and three percent (96) requested to be removed from the mailing list. A total of 1,262 were therefore assumed to be delivered. Of those, 611 were returned, for a 48% response rate.

Findings: Twenty-seven percent of the respondents (n=611) were interested in volunteering. The mean age of those interested in volunteering is 61 years, while the mean age of those who are not interested is 69 years of age, a significant difference (t=7.2, p<.0001). Those more strongly identified with being a nurse and younger respondents were more willing to participate in volunteer work as part of the national effort for homeland security.

Simultaneously, information was compiled regarding the curriculum needed for public health volunteers, specifically for Mass Vaccination/Prophylaxis Clinics. With the information from survey respondents, a Vermont specific training program was developed. Pilot training sessions for inactive nurse volunteers were held in July and August, 2004 in two areas of the state. Participant evaluations and pre- and post-tests helped hone the content and delivery methods. A training session for school of nursing faculty was also developed. Faculty from four of the five Vermont schools of nursing expressed interest in volunteering for the Department of Health in the event of an emergency. The possibility of mobilizing senior nursing students also exists, but this is dependent upon the access to students during the academic year.

Conclusion: This project has helped identify several pockets of volunteers with nursing knowledge to be used to help create "surge capacity". The potential exists for replication in other states.

Recommendations:
1. Rigorous maintenance of an inactive registry after each two year relicensure period.
2. Outreach efforts to foster and reinforce the feeling of connection to the nursing profession which has been correlated with the desire to volunteer in this study.
3. Clarity about the potential responsibilities that volunteering demands is necessary when communicating with inactive nurses.
4. School of nursing faculty volunteers should be regularly corresponded with to maintain their commitment and interest.
5. A "train the trainer" model could be easily adapted for further dissemination of this material.
BACKGROUND

Vermont is facing a nursing shortage similar to the rest of the United States. The shortage will worsen as the majority of nurses reach retirement age by 2011. In light of this, the dilemma of having adequate health workforce resources for responding to a natural or man-made emergency is very real. How will Vermont develop a “surge capacity” that is adequate to meet an emergency of unknown magnitude?

In August, 2003, the Office of Nursing Workforce concluded in The Process of RN Re-Entry into the Nursing Workforce in the State of Vermont, that is was yet to be determined if communicated with, inactive nurses would yield interest in re-entry into practice. With emergency preparedness concerns and a growing nursing shortage in the state, the timing was right to contact inactive nurses about volunteering as well querying them about their reasons for leaving nursing and factors important for re-entry. This project had that dual purpose.

The project was conceptualized with the knowledge that a large database of inactive nurses existed at the Vermont Board of Nursing. What were the characteristics of this group? Would they be willing and/or able to be tapped for emergency preparedness? Could they be enticed to re-entry the nursing profession? These questions needed to be answered.

Project Objectives

1. Vermont’s inactive nurses were surveyed to determine their interest in re-entry into nursing or emergency preparedness training and activities.
2. Training curriculum for use of inactive nurses in emergency situation was developed.
3. Vermont inactive nurses who are interested in volunteering for emergency preparedness training and activities will be activated.
4. A role of school of nursing faculty in the event of an emergency was defined.
5. A role of senior nursing students in the event of an emergency was defined.
6. A statewide nursing faculty and senior student response plan to a statewide emergency was developed.
Survey and Training of Inactive Nurses

Methods

The instrument was drawn from a previous research project designed to study inactive RNs entitled “Identification of factors which would attract inactive registered nurses back to the hospital setting” (Shore, 1990). Permission to use two sections of the original instrument, “Return to Work: Consideration Factors” and “Reasons for Inactivity” was obtained from the author. Demographic information and the questions about willingness to volunteer, reasons for volunteering or not, and preferences for volunteer activity and training were added.

The Vermont Board of Nursing list of licensees is in the public domain. The study was approved by the IRB at the University of Vermont. Content experts reviewed the final instrument. It was then tested on six inactive nurses, drawn from the following categories:

1. Inactive secondary to retirement
2. Inactive secondary to family responsibilities
3. Inactive secondary to dissatisfaction with nursing.

Minor revisions to improve clarity were done following the pilot. Data were collected from February 1, 2004 to April 30, 2004. A modified Dillman’s Total Design method (Dillman, 1978), using a reminder post card at two weeks and replacement surveys at four weeks, was done to maximize response rates. Following data collection, survey data were analyzed using descriptive statistics, t-tests for continuous data and chi-square tests for categorical data.

FINDINGS

1. Vermont’s inactive nurses were surveyed to determine their interest in re-entry into nursing or emergency preparedness training and activities.

The sample was drawn from the entire population of inactive nurses in the state of Vermont in January of 2004, specifically those identified by the Vermont Board of Nursing as holding “lapsed” or “inactive” licenses. The initial mailing list was cleaned of those names with incomplete or out-of-state-addresses. Surveys were sent to 3,682 inactive nurses. A high rate of undeliverable surveys was expected due to change of address past the postal forwarding date, death, or moves out-of-state. Indeed, sixty percent (2,214) were returned “undeliverable” by the postal service; an additional three percent (110) were removed following phone calls from family members who indicated the former RN was deceased, and three percent (96) requested to be removed from the mailing list. A total of 1262 were therefore assumed to be delivered. Of those, 611 were returned, for a 48% response rate.

One of the primary goals of the survey was to establish the inactive nurses’ interest in volunteering their skills for “homeland security.” To achieve this goal, the survey respondents were asked several questions about their interest in volunteering, in what training they would be willing to participate, and what specific activities they would be willing to do.

We found that a sizeable minority of the inactive nurses surveyed in Vermont would be interested in volunteering in a large-scale crisis. The data show that of the 611 survey respondents, 392 inactive nurses were

Figure 1: Interest in Volunteering for Emergency Preparedness

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>70%</td>
<td>60%</td>
<td>50%</td>
</tr>
<tr>
<td>40%</td>
<td>30%</td>
<td>20%</td>
</tr>
<tr>
<td>10%</td>
<td>0%</td>
<td></td>
</tr>
</tbody>
</table>
not interested (64%), and 165 (27%) inactive nurses responded yes, they would be interested in being part of the national effort for “homeland security”. (See Figure 1).

**Former Nurses interested in volunteering**

Over a quarter of the survey respondents answered yes, they would be willing to volunteer in an emergency, “Homeland Security” event. Both groups of inactive nurses, those who rejected and those who embraced volunteering, had worked many years in the field of nursing. The first group, those who declined volunteerism, had worked an average of 29 years in nursing, while the second group, those who expressed interest in volunteering, had worked approximately 25 years. Thus, both groups had extensive experience in the field, and the difference noted may simply reflect the ages of the former nurses.

Of the inactive nurses who responded yes, they would be interested in volunteering, 50% had a diploma, 22% had an A.D. degree, 23% had a baccalaureate degree, and 4% had a Masters degree. The high number of former nurses with diplomas may reflect the age of the respondents, as many of the diploma programs have been phased out in recent decades.

Interestingly, the more a respondent identified as a nurse, the more likely she was to express interest in volunteering in an emergency. Specifically, 35% of those former nurses who specified that they considered themselves a nurse “a great deal” were interested in volunteering. Interest in volunteering decreases with each category of identification with nursing (see Figure 2).

In addition, more than a third of those former nurses who are now employed in non-nursing jobs were willing to volunteer. This may be related to age, as the younger inactive nurses are more active in the paid labor force, and do not have age or health issues related to age as a barrier to volunteerism. This may also be related to perceptions of general competence, since they are still active in a work environment in some capacity, even though it is not nursing. Neither race nor gender were factors, as the vast majority of survey participants were white and female. Regarding marital status, those former nurses who were separated, divorced, married, or partners in a civil union were the most likely to express interest in volunteering, while those inactive nurses who were widowed or never married were the least likely. Of those former nurses who are willing to volunteer, 66% are married. Thus, the largest actual number of potential volunteers are married.

**Reasons for Interest in Volunteering**

The inactive nurses’ reasons for their interest in volunteering stem mainly from their desire to help others and contribute to their communities. The former nurses responded that they wanted to volunteer in an emergency because “it’s the right thing to do,” and they wanted “to do my part,” and make a “civic contribution.” One woman commented, “I feel that I could and should do this,” while another felt compelled to volunteer but added: “But for pay only – women have volunteered for no pay for years.” Another inactive nurse stated that “in a world with so much instability, all who are able must step forward to do their part.”
Some of the altruistic feelings are more local in nature, with inactive nurses expressing a responsibility and personal commitment to their local communities – their families, friends, and neighbors. When explaining their reasons why they would be interested in volunteering, some women offered responses such as: “I care about friends and neighbors,” “to be able to help family and neighbors and others,” and “to insure safety of family.”

However, the desire to help appears to stem more often from a larger, more national perspective. The former nurses were primarily motivated by feelings of patriotism, commitment to a larger community of citizens, and concerns about national security. The inactive nurses described their reasons for wanting to volunteer with comments such as “to serve my community and country,” “to aid homeland security,” “Concern for people/nation,” or “it is the patriotic thing to do.”

Reasons for interest in helping also came from the belief that the field of nursing is rooted in the ethic of helping other people. The former nurses felt that they should volunteer because “I’m a nurse, that is what I do,” and “nurses are people helpers.” There was a sense from their responses that they see their profession as unique in that it is based on the principle of serving others.

In addition, not only did they define helping as their professional duty, they also revealed that they had both professional and personal skills that would be useful. The inactive nurses offered comments such as these in their explanations for why they wanted to volunteer: “[I’m] very confident and comfortable responding to emergencies,” “[I] handle crisis well,” “I have valuable skills to offer,” “[I] have a sense of calm during chaos,” and “I feel my nursing experiences and skills can be useful.” Indeed, one inactive nurse reflected: “In that situation, I’d hate not to be using my skills to help.”

Finally, some of the former nurses spoke to how this type of volunteering may be positive for them personally or professionally. They commented that they were “considering ways to get back into nursing,” or they “miss helping people,” or the work “sounds exciting,” and from a practical view, they wanted to “maintain skills” and “get hours.” Overall, however, the majority of sentiments surrounded more selfless and other-oriented explanations, such as simply “to be helpful.”

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Figure 3:

**Percent of Respondents Willing to Participate in Training**

<table>
<thead>
<tr>
<th>Skill</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviewing Skills</td>
<td>15%</td>
</tr>
<tr>
<td>Assessment</td>
<td>20%</td>
</tr>
<tr>
<td>Incident Command System</td>
<td>10%</td>
</tr>
<tr>
<td>Strategic National Stockpile</td>
<td>10%</td>
</tr>
<tr>
<td>Public Health Education</td>
<td>15%</td>
</tr>
<tr>
<td>Skills Training</td>
<td>15%</td>
</tr>
<tr>
<td>First Aid</td>
<td>10%</td>
</tr>
</tbody>
</table>

—I miss helping people.
—Inactive nurse in Vermont
Types of Training and Activities

In the 2004 Vermont Inactive Nurse Interest Survey, the former nurses who were interested in volunteering were asked what type of training they would be willing to participate in, and what type of volunteer activities they would be willing to do in the event of an emergency (see Figure 3).

The trainings that received the most interest were assessment and interviewing skills (see Figure 4). Twenty percent of the inactive nurses were willing to be trained in assessment in an emergency, and 18% were willing to be trained in interviewing skills.

The former nurses were least interested in Incident Command System (7%) and Strategic National Stockpile (10%). It is possible that the inactive nurses were not clear on the components of those types of training, and thus that contributed to their disinterest.

The former nurses’ interest in specific volunteer activities that they were willing to do was distributed fairly equally among many categories. Some were willing to do client interviews (18%), health assessments (17%), vaccine administration (17%), counseling of worried well (16%), and support RN staff (17%). The inactive nurses were somewhat less interested in volunteering their time to do public health education (13%) and contact tracing (9%).

Disaster volunteers are an important part of an effective and successful emergency response and recovery in a disaster. While research has shown that there are some problems associated with the large number of unskilled volunteers descending on a disaster site, there is a need for skilled, trained volunteers, such as nurses, to participate in the emergency response. Furthermore, research has found that participating in volunteer efforts in a crisis helps the volunteers themselves recover psychologically by allowing them the opportunity to do something positive and meaningful in often tragic, overwhelming circumstances. It is clear that Vermont citizens could be assisted in a large-scale disaster by Vermont’s own inactive nurses who are willing and able to volunteer their time and energy. Because these inactive nurses are familiar with dealing with the public and have been previously trained in providing care, they could most comfortably fill the role of emergency volunteer and provide valuable assistance during a time of crisis in Vermont.

With 165 respondents indicating that they would be interested in volunteering, 156 (95%) actually returned postcards with their names and addresses requesting more information about volunteering.

Figure 4:

Percent of Respondents Willing to Do Volunteer Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact Tracing</td>
<td></td>
</tr>
<tr>
<td>Client Interviews</td>
<td></td>
</tr>
<tr>
<td>Health Assessments</td>
<td></td>
</tr>
<tr>
<td>Vaccine Administration</td>
<td></td>
</tr>
<tr>
<td>Public Health Education</td>
<td></td>
</tr>
<tr>
<td>Counseling of Worried Well</td>
<td></td>
</tr>
<tr>
<td>Support RN Staff</td>
<td></td>
</tr>
</tbody>
</table>

“I've got the skills to help in an emergency situation, especially in the event our homeland is threatened or attacked.”
— Inactive nurse in Vermont
Survey and Training of Inactive Nurses

**Interest in Re-entry into nursing**

Of the 611 respondents, 93 (15%) indicated that they would consider returning to nursing practice. Postcards (with names and addresses) requesting more information on re-entry options, were returned by 86. Those considering returning to nursing are compared with those who would not consider returning in Table 1.

This group of inactive nurses who would consider re-entry is relatively small (n=93) and would appear to have a limited number of working years remaining based on their mean age (54 years). On a five point scale, the most important factors (chosen from 35 items) associated these individuals returning to nurse practice were as follows:

- Free Nurse Refresher Course . . . . . . . . . 79%
- Accessibility of Re-entry Program . . . . . 77%
- Flexible Work Schedules . . . . . . . . . . . . 77%
- Orientation Program . . . . . . . . . . . . . . . 69%
- Affordable Re-entry Program . . . . . . . . 69%
- Vacation/Holiday Time Off . . . . . . . . . . 64%
- Adequate Staffing . . . . . . . . . . . . . . . . . 63%
- No Shift Rotation . . . . . . . . . . . . . . . . . 63%
- Proximity to home . . . . . . . . . . . . . . . . . 60%
- Medical/Dental Coverage . . . . . . . . . . . 59%
- Reputation of the Nursing Leadership . . . . 53%
- Reputation of the Organization . . . . . . . . 52%
- In-Service Education . . . . . . . . . . . . . . . 51%
- Physician/Nurse Relations . . . . . . . . . . . 49%

The likely practice areas, if these individuals returned are represented in figure 5.

**Figure 5:**

<table>
<thead>
<tr>
<th>Likely Setting if returning to Nursing Practice</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>79%</td>
</tr>
<tr>
<td>Combination</td>
<td>77%</td>
</tr>
<tr>
<td>Other</td>
<td>77%</td>
</tr>
<tr>
<td>Ambulatory Care</td>
<td>69%</td>
</tr>
<tr>
<td>Home Health</td>
<td>69%</td>
</tr>
<tr>
<td>LTC</td>
<td>64%</td>
</tr>
<tr>
<td>Independent Practice</td>
<td>63%</td>
</tr>
<tr>
<td>Assisted Living</td>
<td>63%</td>
</tr>
<tr>
<td>Corrections</td>
<td>60%</td>
</tr>
<tr>
<td>Public Health</td>
<td>59%</td>
</tr>
<tr>
<td>Community Health Center</td>
<td>59%</td>
</tr>
</tbody>
</table>
## Demographics, educational background, and current status of nurses who reported that they would consider returning to nursing practice vs. those who would not.

<table>
<thead>
<tr>
<th>Demographic Category</th>
<th>Consider Return to Nursing (n=93)</th>
<th>Would Not Consider Return (n=470)</th>
<th>Statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Age (mean, SD)</td>
<td>54 (11)</td>
<td>70 (10)</td>
<td>$t_{113}=14.1$</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Years employed as a nurse (mean, SD)</td>
<td>17.9</td>
<td>29.2</td>
<td>$t_{325}=7.5$</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Years since last employed as a nurse* (mean, SD)</td>
<td>10.7</td>
<td>14.8</td>
<td>$t_{325}=3.8$</td>
<td>0.0002</td>
</tr>
<tr>
<td>Nursing degree (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma</td>
<td>34.1%**</td>
<td>69.7%</td>
<td>$X^2=75.3$</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>A.D.</td>
<td>42.9%</td>
<td>9.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>20.9%</td>
<td>17.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master's or higher</td>
<td>2.2%</td>
<td>3.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other degrees-non nursing (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>67.7%</td>
<td>80.4%</td>
<td>$X^2=12.2$</td>
<td>0.007</td>
</tr>
<tr>
<td>A.D.</td>
<td>6.5%</td>
<td>1.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>18.3%</td>
<td>10.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master's or higher</td>
<td>7.5%</td>
<td>7.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity of most experience (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct patient care</td>
<td>70.8%</td>
<td>48.6%</td>
<td>$X^2=14.9$</td>
<td>0.002</td>
</tr>
<tr>
<td>Nurse Administrator</td>
<td>14.6%</td>
<td>22.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community health</td>
<td>9.0%</td>
<td>18.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>5.6%</td>
<td>11.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital status (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>6.0%</td>
<td>5.1%</td>
<td>$X^2=22.7$</td>
<td>0.0001</td>
</tr>
<tr>
<td>Married</td>
<td>71.4%</td>
<td>56.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Separated/Divorced</td>
<td>16.7%</td>
<td>8.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>6.0%</td>
<td>29.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civil union</td>
<td>0%</td>
<td>0.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have dependents (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>61.3%</td>
<td>35.3%</td>
<td>$X^2=21.9$</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>No</td>
<td>38.7%</td>
<td>64.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Currently retired (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>34.1%</td>
<td>85.7%</td>
<td>$X^2=111.8$</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>No</td>
<td>65.9%</td>
<td>14.3%</td>
<td></td>
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<tr>
<td>Currently employed (%)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Yes</td>
<td>50.0%</td>
<td>15.6%</td>
<td>$X^2=52.1$</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>No</td>
<td>50.0%</td>
<td>84.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Currently unemployed (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>19.3%</td>
<td>2.0%</td>
<td>$X^2=48.5$</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>No</td>
<td>80.7%</td>
<td>98.0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Survey and Training of Inactive Nurses

<table>
<thead>
<tr>
<th>Consider Return to Nursing (n=93)</th>
<th>Would Not Consider Return (n=470)</th>
<th>Statistic (n=93)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Extent consider yourself a nurse (%)</strong></td>
<td><strong>Extent consider yourself a nurse (%)</strong></td>
<td><strong>Extent consider yourself a nurse (%)</strong></td>
<td><strong>Extent consider yourself a nurse (%)</strong></td>
</tr>
<tr>
<td>A great deal 52.2%</td>
<td>47.1%</td>
<td>X²=8.0</td>
<td>0.05</td>
</tr>
<tr>
<td>Somewhat 33.3%</td>
<td>29.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very little 14.4%</td>
<td>15.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not at all 0%</td>
<td>7.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Interest in volunteering for homeland security (%)</strong></td>
<td><strong>Interest in volunteering for homeland security (%)</strong></td>
<td><strong>Interest in volunteering for homeland security (%)</strong></td>
<td><strong>Interest in volunteering for homeland security (%)</strong></td>
</tr>
<tr>
<td>Yes 65.9%</td>
<td>20.6%</td>
<td>X²=72.4</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>No 34.1%</td>
<td>79.4%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Calculated as 2004 minus year you were last employed as a nurse.
** All percents expressed as column percents.

All inactive nurses who returned a postcard requesting more information about re-entry were sent a letter announcing a new on-line re-entry program and scholarships that have been made available by the Department of Employment and Training. On August 30, 2004, five individuals will begin in the on-line program which is offered through a collaboration with Charter Oak State College, the Connecticut League for Nursing, and the Office of Nursing Workforce. Scholarships for the online re-entry program will continue to be offered for up to six Vermont inactive nurses per quarter until December, 2005.

### 2. Training curriculum for use of inactive nurses in emergency situation was developed.

A literature review of emergency preparedness training for nurses and other volunteers was completed. Helpful resources were identified, such as The International Nursing Coalition for Mass Casualty Education which has created competencies and a nursing curriculum for emergency preparedness and is found at www.incmce.org (Conway-Welch, Weiner, 2004). Core emergency preparedness competencies have also been developed for public health workers (Gebbie, Murrman, Qureshi, & Merril, 2004). Gebbie and Queshi (2002) concluded that “The first step toward emergency preparedness is the identification of who needs to know how to do what” (p.50).

An Inactive Nurse curriculum for a 3-4 hour training session was developed using materials from the reviewed resources as well as Vermont specific examples:

**Day One Outline**
- Ice breakers – let’s get to know each other!
- Pre-survey (To help us improve our training)
- What is Public Health?
- Public Health Emergency Preparedness
- What are we preparing for?
- Communication in an Emergency
- Your emergency plan

**Day Two Outline**
- Video: Mass Vaccination Clinics: A Reality Check (edited to 30 minutes)
- Job Action Sheets and Task Sheets
NURSING WORKFORCE EMERGENCY PREPAREDNESS PROJECT:

- Volunteer Disaster Information
- What do I bring
- Where do I go
- Safety during a disaster
- Post-survey and Evaluation of training

In the Rutland area pilot, two hour trainings were held on two different days in order to give participants time to consider their commitment to being trained and purposefully return for the final day. All of the Rutland participants (5) did return for the second day. Several participants (2) were also trained in one three hour session. In the White River Junction area pilot, six participants were trained in one 4 hour session which included a 30 minute lunch break.

Both the one day and two day training formats were acceptable to the participants and trainers. Comments of “a lot of material”, and “slightly overwhelming” were made solely by the participants of the one day training. Six out of nine Rutland participants (including the district nursing staff) indicated a preference for a two- day training.

3. Vermont Inactive nurses who are interested in volunteering for emergency preparedness training and activities will be activated.

Inactive nurses who received the Inactive Nurse Survey were also asked to return a postcard with their names and addresses and the following information:

I would like more information about:
(check all that apply)
- Re-entry into nursing programs (classroom, workbook or online)
- Volunteering for Emergency Preparedness training and response.

This post card was returned separately from the Inactive Nurse Survey. Names and addresses of 86 interested in re-entry were received. The map in Figure 6 shows the wide geographic distribution of the 156 interested in emergency preparedness (in blue dots). The respondents were divided into twelve areas that corresponded with twelve Health Department District Offices.

Figure 6:

Geographic distribution of the 156 interested in emergency preparedness

Twenty-two interested inactive nurses from the Rutland area were invited to a two day Emergency Preparedness training in their area. Five former nurses attended on the both days for four hours and two more joined on the second day for a three hour training session. The yield of the interested, to those who were actually trained was 33%. Pre and post tests from that pilot training session measured new knowledge regarding
these questions:

1. ICS stands for Infection Control System.  
   (False - ICS actually stands for Incident Command System)

2. Job Action Sheets describe the duties of a particular role in a mass vaccination clinic. (True)

3. As a volunteer you should immediately call the Public Health Department district office in the event of an emergency. (False)

4. Mass Vaccination or Prophylaxis Clinics will be used only in the event of bioterrorist attack. (False)

5. A common role for Public Health in a disaster is to provide public education. (True)

6. An Outbreak is when the occurrence of a disease is clearly in excess of what is expected for a particular time period. (True)

7. A Family Disaster Plan includes making provisions for your pets in a disaster. (True)

8. Volunteers may be asked to greet clinic patients in a disaster. (True)

9. Vermont will be the first state to conduct drills to practice mass vaccination and/or prophylaxis clinics. (False)

10. All planning for Emergency Preparedness and Homeland Security is done on the federal level. (False)

### Evaluation of Rutland pilot group, Two sessions, July 2004

<table>
<thead>
<tr>
<th>Participant</th>
<th>Pre-Test Score</th>
<th>Post – Test Score</th>
<th>Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>30%</td>
<td>60%</td>
<td>30%</td>
</tr>
<tr>
<td>2</td>
<td>70%</td>
<td>100%</td>
<td>30%</td>
</tr>
<tr>
<td>3</td>
<td>20%</td>
<td>100%</td>
<td>80%</td>
</tr>
<tr>
<td>4</td>
<td>40%</td>
<td>100%</td>
<td>60%</td>
</tr>
<tr>
<td>5</td>
<td>60%</td>
<td>100%</td>
<td>40%</td>
</tr>
<tr>
<td>6</td>
<td>60%</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>7</td>
<td>70%</td>
<td>100%</td>
<td>30%</td>
</tr>
<tr>
<td>8</td>
<td>90%</td>
<td>100%</td>
<td>10%</td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td><strong>55%</strong></td>
<td><strong>93%</strong></td>
<td><strong>38%</strong></td>
</tr>
</tbody>
</table>

**Comments:**
- Very effective presentation (combination of lecture, video and hands-on)
- Hands on with explanation was best
- Information could have been condensed (i.e. why this is important)
- Had trouble hearing the video

### Evaluation of White River Junction – One day session evaluation, August 2004

<table>
<thead>
<tr>
<th>Participant</th>
<th>Pre-Test Score</th>
<th>Post – Test Score</th>
<th>Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>40%</td>
<td>90%</td>
<td>50%</td>
</tr>
<tr>
<td>2</td>
<td>60%</td>
<td>90%</td>
<td>30%</td>
</tr>
<tr>
<td>3</td>
<td>60%</td>
<td>90%</td>
<td>30%</td>
</tr>
<tr>
<td>4</td>
<td>70%</td>
<td>90%</td>
<td>20%</td>
</tr>
<tr>
<td>5</td>
<td>90%</td>
<td>100%</td>
<td>10%</td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td><strong>64%</strong></td>
<td><strong>92%</strong></td>
<td><strong>28%</strong></td>
</tr>
</tbody>
</table>

The most common error on the post-test for this group was answering that the following statement was true: Vermont will be the first state to conduct drills to practice mass vaccination and/or prophylaxis clinics. This content was covered in the video which gave an example of a mass clinic in California. The White River Junction group alone was given an evaluation form with a 5 point scale from Excellent (5) to Poor (1). The
mean evaluation for these categories was as follows:

Geographic Location ........................................ 4.6
Directions ..................................................... 4.8
Overall presentation of information ...................... 4.8
Handout materials ............................................ 4.6
Slides (Power Point) .......................................... 4.3
Video .......................................................... 4.0

How well did the training meet your expectations ... 4.6

Comments:
• Didn’t care for video interviews
• Thankful to be in an educational environment
  with updated information
• A lot of material, but well presented. Good job. I
  just hope that we don’t have to use it.

4. Define the role of school of nursing faculty in the event of an emergency.

Interviews were conducted with the chairpersons of
the five schools for nursing in Vermont to determine
if emergency preparedness plans were in place for
the nursing faculty and nursing students. No formal plans
were in place in any school. Interest in assisting the
Health Department in the event of an emergency was
expressed by nursing faculty in four of the five schools.
One school indicated that the majority of the faculty
was from out-of-state and that their participation
in an emergency response would be in their home
communities.

5. Define the role of senior nursing students in the event of an emergency.

Nursing faculty agreed that during the academic
year, the potential existed for mobilization of nursing
students to assist in an emergency such as a mass
vaccination clinic. Faculty from one school indicated
that they would like their emergency preparedness
plan not to be dependent on students in the event
that the emergency happened when students were
not on campus. The role of senior nursing students
would therefore be dependent on the nursing faculty’s
emergency preparedness training and their access to
students at the time of the emergency.

6. Develop statewide nursing faculty
and senior student response plan to a
statewide emergency.

The curriculum used for the inactive nurse was
reviewed by four community health nursing faculty
and was adapted slightly for the audience of nursing
faculty and senior students. A cover letter, CD and
video were mailed to faculty in the four participating
schools of nursing. Faculty was asked to view the
material, complete the anonymous pre and post test,
and then notify the Health Department that they had
completed their training via postcard. Names, phone
numbers and addresses of these faculty members
would be added to the Health Department list of those
available to volunteer for Mass Vaccination/Prophylaxis
Clinics in their area. Faculty would be encouraged to
use the materials to train senior students if possible.
The faculty would be responsible for mobilizing senior
nursing students if directed to do so by the Health
Department in an emergency.
Conclusions

A small but important number of former nurses, who are currently listed in the inactive or lapsed licensure category in the Vermont Board of Nursing database, would be available and willing to be trained for emergency preparedness and response. This number (156) represents only 4% of the 3,682 individuals who were mailed the 2004 Inactive Nurse Survey. Time and expense is required to keep the inactive nurse database up-to-date for the purpose of re-entry into nursing practice and/or emergency preparedness training and response.

A curriculum for preparing volunteers to participate in Mass Vaccination/Prophylaxis Clinics was developed using: 1) Materials from Columbia University School of Public Health, 2) The survey response of the inactive nurses regarding areas of willingness to participate or be trained, and 3) Vermont examples of emergencies. A similar curriculum was deemed acceptable for use with nursing faculty and senior nursing students.

Recommendations

1. Rigorous maintenance of an inactive registry after each two year relicensure period. All nurses who did not renew their license could be surveyed for their interest in emergency preparedness training and response.

2. Identification of self as a nurse was highly correlated with the willingness to volunteer. Outreach efforts, such as a newsletter, might foster and reinforce the continued feeling of connection to the profession.

3. Clarity about the potential responsibilities that volunteering demands is necessary when communicating with inactive nurses. A range of opportunities may be most appropriate, thereby allowing interested volunteers to select skills within their individual comfort range. The application of these findings to an actual Mass Vaccination Clinic training, for example, found some inactive nurses to be very comfortable with psychomotor skills such as injections while others preferred psychosocial skills such as history taking or teaching.

4. Faculties of schools of nursing in Vermont were open to the idea of being utilized as volunteers by the Department of Health, in the event of an emergency. Although some faculty have clear clinical associations due to per diem work, others may be available to help create more “surge capacity” particularly if they are able to involve their nursing student in a volunteer effort. These faculty volunteers should receive regular correspondence to maintain their commitment and interest.

5. A “train the trainer” model could be easily adapted for further dissemination of this material.

6. A unique name should be used for this program. Several program logos were developed (see Appendix 1) using the acronyms EPIC (Emergency, Preparedness Increased Capacity) and MVP (Mass Vaccination or Prophylaxis.) However these acronyms were rejected by participants and VDH due to other uses of the same acronym. New program name suggestions should be piloted during upcoming training sessions.
References:


Appendix 1:

Several program logos were developed using the acronyms EPIC (Emergency, Preparedness Increased Capacity) and MVP (Mass Vaccination or Prophylaxis.)
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