Updated October 27, 2011

Evaluation Toolkit for the Deployment of MRC Units During Flu Clinics and Other Public Health Activities

Elena Savoia, Melissa A. Higdon, Sarah Massin-Short,
Lindsay Tallon, Michael A. Stoto

October 27, 2011

Table of Contents

Chapter One. Introduction to the Toolkit

Why was this Toolkit developed?

Despite substantial investments in public health preparedness, validated measures to ensure accountability and to enable systems improvement and the advancement of knowledge are lacking. The Office of the Civilian Volunteer Medical Reserve Corps (OCVMRC) partnered with the National Association of County and City Health Officials (NACCHO), Harvard School of Public Health and Georgetown University to develop a Toolkit that MRC units can use to assess the effectiveness of engaging volunteers in public health activities, specifically flu clinics.

Institutional Review Board (IRB) approval

This study was approved by the Harvard School of Public Health and Georgetown University Institutional Review Boards.

What does this Toolkit contain?

This Toolkit includes:

A. Three questionnaires:
    1. A questionnaire for MRC volunteers who participate in public health activities (Volunteer Self Assessment Questionnaire),
    2. A questionnaire for volunteers that have been recruited to participate but were unable to attend (Barriers to Volunteering Questionnaire),

3. A questionnaire for the local health department (LHD) staff who supervised the public health activity (LHD Staff Questionnaire on MRC Volunteers).

B. Information on how the questionnaires were developed and validated

C. Instructions on how to implement the questionnaires

D. A website to enter the data into the website www.mrctoolkit.com and get a report with the analysis of results

E. Information on how to use the instrument in the context of quality improvement efforts.

Who should use this Toolkit and why?

These surveys will help local MRC leadership identify the strengths of engaging volunteers in public health activities as well as understand barriers experienced by the volunteers in participating in such activities. Such information can be used to improve the process in future deployment (as is further discussed in chapter three).

How was the Toolkit validated?

As described below, the instruments were tested and revised based on structured observations performed by a group of researchers from Harvard School of Public Health and Georgetown University who implemented the questionnaires in fifteen different locations throughout the country. In addition, feed-back on the practicality of the instruments and on the interpretability of the results was gathered during two face-to-face meetings with MRC coordinators and LHD staff that had the opportunity to use the instruments. Finally, statistical analysis was performed to assess the psychometric properties of the instruments.

The following chapters explain in detail the tools contained in the Toolkit and how MRC coordinators can use this Toolkit to assess the effectiveness of engaging volunteers during public health activities. The reliability and validity of the instruments included in the Toolkit have been tested in the context of flu clinics and can provide the MRC unit leaders and local health departments with insight into how to monitor and improve the recruitment and engagement of volunteers in public health activities.

When should an MRC unit use the Toolkit?

The Toolkit can be used every time a MRC unit participates in a public health activity. Specific suggestions on the use of the Toolkit in the context of system improvement efforts are presented in chapter three.

How long does it take to implement the Toolkit and get the results?

It takes between ten and twenty minutes to collect the questionnaires after a given activity. More details on how to conduct this process are given in chapter two. An online data entry program is available at www.mrctoolkit.com to enter and analyze the data. It should take about two minutes to enter each questionnaire and a couple of minutes to get the results from the online program. After all of the surveys are entered, the MRC Coordinator can click on the link "View Survey Results" to see their MRC unit's survey results in the context of other sites.

The Three Questionnaires

Volunteer Self Assessment Questionnaire

The first instrument was designed for MRC volunteers who participated in the activity. The topic areas addressed in this survey include MRC volunteers' 'level of confidence with ICS', 'training', 'confidence in interacting with clients and/or patients', 'team work', 'personal preparedness' and 'motivations for volunteering'.

The first topic addressed in this instrument is confidence with ICS. ICS is a standardized incident management concept based on providing a common framework for the response organization to operate effectively. This provides an infrastructure that allows people who do not usually work together to work effectively as a team.

The second topic addressed in this instrument is 'training'. First, MRC volunteers are asked how useful they found the training that they received to prepare them to perform in their role at the event. When volunteers report that the training was not useful, a series of follow up questions explore the reasons why and possible areas for improvement. In particular, four answer options are provided:

1. The training was not related to the functions performed at the event
2. The training was too difficult to remember
3. Given my background and experience I was able to perform the functions I was asked to do without being trained
4. Training received was too generic and not practice oriented

'Confidence in interacting with clients and/or patients' is the next section of Instrument One. In this section, the questions address whether the volunteers felt comfortable and confident in the role they were assigned and also focuses on specific aspects of 'team work'. MRC volunteers are then asked questions about 'personal preparedness' and arrangements they had to make in order to participate. Finally, 'motivations for volunteering' are assessed, exploring seven aspects related to the reasons for their engagement. These include:

1. Volunteering is good for their professional development
2. Volunteering gives them the opportunity to make new friends
3. Volunteering helps them through personal emotional development
4. Volunteering is an important way to help others
5. Volunteering makes them feel more connected to the community
6. Volunteering makes them feel good
7. Volunteering allows them to use their skills that are useful to the community

Barriers to Volunteering Questionnaire

The second survey instrument targets those MRC volunteers who were unable to attend the event. The first set of questions is designed to find out why the MRC volunteer could not participate in the activity. Answer options include not having available paid time off from work, job duties interfering with the time of volunteering, health problems, lack of transportation, lack of childcare and lack of time because of prior commitments. Next there is a short series of questions addressing the reasons for not being able to volunteer at the event related to skills and motivations.

The survey instrument also addresses whether the MRC volunteers felt that their skills were adequate, they had received enough training and they had enough information to volunteer. Finally, a section on motivations for volunteering is presented with questions identical to those in Instrument One so that the factors impacting the level of motivation of those who attended the event could be compared to those who were not able to attend.

LHD Staff Questionnaire on MRC Volunteers

The third survey instrument is designed to gather data on the experience of LHD staff in engaging MRC volunteers in public health activities. The topic areas investigated in this survey are similar to those assessed with the self assessment forms given to the volunteers. In the first section of this instrument LHD staff are asked two open-ended questions about MRC volunteers. The first question is about unique characteristics and/or professional abilities of the MRC unit engaged in the activity being observed. The second question is about specific aspects of an MRC unit that need to be improved in terms of competencies and/or composition of professional roles.

The following section of this instrument addresses competence. LHD staff are first asked how confident they thought the MRC volunteers were in fulfilling their roles during the event and how confident the MRC volunteers were in working within the incident command structure. Whether MRC volunteers seemed to understand what was expected of them is also assessed by LHD staff in Instrument Three.

Next, LHD staff are asked whether they thought MRC volunteers were well trained, and what additional training could have been beneficial. They are also asked whether they thought the MRC volunteers were prepared by virtue of their professional backgrounds, prior training, and Just-In-Time training to assume their assigned roles. The LHD staff are asked about how

much time and effort it took to organize the event, and whether having MRC volunteers participate made this process easier.

Finally, there is a question directed to the MRC Coordinator asking what were the three most challenging factors experienced in engaging the MRC unit. Choices include:

1. Recruiting a sufficient number of volunteers
2. Recruiting competent and trained volunteers for specific functions
3. Recruiting motivated volunteers
4. Engaging MRC volunteers on the day of the event
5. Providing sufficient training
6. Identifying roles appropriate to the volunteers' background and experience
7. Supervising the volunteers' work during the event's activities
8. Providing meaningful and sufficient feed-back to the work done
9. Identifying roles and tasks for all volunteers that came to the event

How were the questionnaires developed?

The instruments evolved as they were being tested. In developing the first draft of the survey instruments, previous sets of surveys widely used by non-profit organizations for the management of volunteers were identified and consulted, which provided the basis for these surveys (Colon-Emeric, 2006; Davies, 2008).

The instruments presented in this Toolkit have been tested in terms of reliability and validity in the context of flu clinics. During the fall and winters of 2008, 2009, and 2010, this team of researchers has continuously received funding from NACCHO and the OCVMRC to

continue to test the Toolkit at flu clinics ran by MRC units across the country. Since the fall of 2008, we have tested the Toolkit at 17 different locations including: San Rafael, California; Sacramento, California; Boston, Massachusetts; Brookline, Massachusetts; Cambridge, Massachusetts; Lexington, Massachusetts; Newton, Massachusetts; Derry, New Hampshire; Asbury Park, New Jersey; Circle Stow, Ohio; Bethlehem, Pennsylvania; Bucks County, Pennsylvania; Houston, Texas; Arlington, Virginia; Alexandria, Virginia; Fairfax County, Virginia; and Seattle/King County, Washington. Over the past three years, we have received feedback from the MRC coordinators at these locations where we have tested the Toolkit and revised our survey questionnaires that are featured in the Toolkit in accordance with the feedback from the MRC unit coordinators.

The surveys were revised as problems arose with implementation. Therefore, the instruments presented in this Toolkit are an improved version of the surveys that were used at the various locations. A summary of the validation analysis is has been published in the journal *Disaster Medicine and Public Health Preparedness*. The citation for this article is as follows: Savoia, E., Massin-Short, S., Higdon, M.A., Tallon, L., Matechi, E., Stoto, M.A. A toolkit to assess Medical Reserve Corps Units' performance. *Disaster Medicine and Public Health Preparedness*, 2010, 4: 213-219.

In the fall of 2011, this group of researchers at Harvard School of Public Health and Georgetown University again received funding from NACCHO to test the MRC toolkit at three different locations (Brookline, MA; Lexington, MA; Buck County, PA), revise the MRC toolkit, and enhance usability on the MRC website. Moreover, on March 4, 2011 Harvard School of Public Health and Georgetown University hosted an exploratory learning collaborative meeting for Medical Reserve Corps (MRC) units that have been working with us on the Toolkit in

Boston, MA. At this learning collaborative meeting, we held a focus group session with the eight MRC unit coordinators that attended the meeting to identify specific problems with the current MRC website. These MRC unit coordinators were from Maine Township, Illinois; Douglas County, Kansas; Brookline, Massachusetts; Newton, Massachusetts; Monmouth County, New Jersey; Montgomery County, Texas; Fairfax County, Virginia; and Seattle/King County, Washington. The MRC unit coordinators requested that the feedback graphically displayed with the proportion of volunteers that were in the top category in their MRC unit, in relation to other MRC units as opposed to presenting all of the available data graphically. The website www.mrctoolkit.com was updated to reflect the preference of MRC coordinators.

Chapter Two. Instructions on how to implement the questionnaires

Step 1: Determining timing of evaluations

Using the tools in this kit can help identify areas of improvement for recruiting and utilizing MRC volunteers. In theory, evaluations should be performed after every deployment and results fed back into improvements very rapidly (see chapter three). Ultimately, these tools should be used annually or after every MRC deployment over the course of a year, allowing the results to be used for rapid cycles of improvement (see chapter three). Using this Toolkit every time the MRC unit is asked to participate in an event (such as a flu clinic) may be ideal. Flu clinics are generally conducted during the same time period each year before flu season. In some locations, several flu clinics are held over the course of a few months. These instruments could be used to improve performance and participation of MRC volunteers throughout the flu season (at each flu clinic offered in a given year), or on an annual basis (thus conducting the evaluation at one flu clinic once a year and analyzing the results for the next year) depending on local needs and available resources.

Step 2: Determining staffing and materials

A survey coordinator (i.e. an MRC volunteer) should be identified by the MRC unit coordinator to manage the distribution and collection of surveys from the LHD staff and the MRC volunteers at each site, and to aggregate the data from the surveys after the event.

Instructions for implementing the Volunteer Self Assessment Questionnaire

The Volunteer Self Assessment Questionnaire can be found on the website: www.mrctoolkit.com or can be downloaded and printed from Harvard School of Public Health's website: http://www.hsph.harvard.edu/hperlc/resources-and-toolkits/medical-reserve-corps-toolkit/index.html.

It is clearly beneficial to distribute the questionnaires the day of the activity to maximize participation, as MRC volunteers and LHD staff may be less motivated to complete an online survey once they return home. If some volunteers did not respond to the paper questionnaire, then data collection can eventually be integrated with an online survey or implementation of the survey by phone.

Instructions for implementing the Barriers to Volunteering Questionnaire

The second survey instrument is to be completed by the MRC volunteers who were contacted by the MRC coordinator to participate in a specific public health activity, but were unable to attend. This instrument has been designed to identify barriers to the deployment of volunteers. This questionnaire should be conducted online by having MRC volunteers who were unable to attend the event answering survey questions found on the website: www.mrctoolkit.com.

Instructions for implementing the LHD Staff Questionnaire on MRC Volunteers

It is useful to print copies of Instrument Three on different colored paper than Instrument One to allow the staff collecting the questionnaires to easily inform different groups of individuals about which survey they should fill out. If the LHD staff decide to use the Toolkit, it

is essential to engage the MRC coordinator in the planning process, as we found better participation at locations where the MRC coordinators ensured that all volunteers were answering the surveys.

Using incentives

Many volunteers mentioned that they would have filled out the survey without an incentive, but offering incentives is known to encourage participation. The incentive for participating in the survey can be mentioned in the instrument itself. For example, in the paper questionnaires a final page can be added to Instrument One thanking the participant for filling out the survey and informing them about the incentive. The additional page can request the name and address of the survey participant for entry into a gift certificate raffle. The individual filling out the survey can then tear off this page and turn in the survey separately, remaining anonymous.

Step 3: Facilitating data collection

On the day of the event, the survey coordinator should arrive early, at least half an hour before the activity begins. This will allow the survey coordinator and the MRC leader to determine the best time and place to distribute the surveys. It is also particularly helpful if the MRC coordinator actively encourages the MRC volunteers to fill out the surveys. The survey coordinator should stand by the door to inform MRC volunteers of the survey and incentives (if available) as they come into the clinic to work. Moreover, standing by the door can also help

identify MRC volunteers or LHD staff that may have forgotten to fill out a survey so that they can be reminded to complete one.

Step 4: Making observations

It is particularly helpful for the survey coordinator to take notes on her/his observations during the entire event. A narrative report, as seen in Appendix A, should be written as soon as possible after each event detailing the activity observed. The average length of a narrative report is three pages and should include information on the site, number of volunteers, number of clients, hours of operation as well as issues that emerged during the operation of the clinic and solutions implemented. This document is particularly helpful for putting the results of the survey instrument into context.

Step 5: Conducting the hot wash

At the end of the event, the MRC coordinator should lead a "hot wash" or a debriefing session with the MRC volunteers and other participants. Or, when a hot wash is conducted by participating program partners, the MRC "hot wash" should be a part of it. The survey coordinator should be present for the session and take notes to include in the narrative, but should observe rather than participate in the hot wash.

Step 6: Conducting data entry and data analysis

In the summer of 2011, a new website was developed that allows each MRC unit coordinator to enter the data from the paper versions of the "Volunteer Self Assessment

Questionnaire" and the "Barriers to Volunteering Questionnaire." The website can be accessed at: www.mrctoolkit.com. The MRC coordinator can collect the survey questionnaires at the end of a public health activity and then go to this website to enter the volunteers' surveys into the website one survey at a time. Once the MRC coordinator accesses the website, he or she should select the MRC unit to which he or she belongs from a drop down menu on the home page of the website, type in the name of the public health activity (for example: "Flu Clinic at Eastbrook High School") in the appropriate box and type the date of the public health activity before selecting "click here to start the survey".

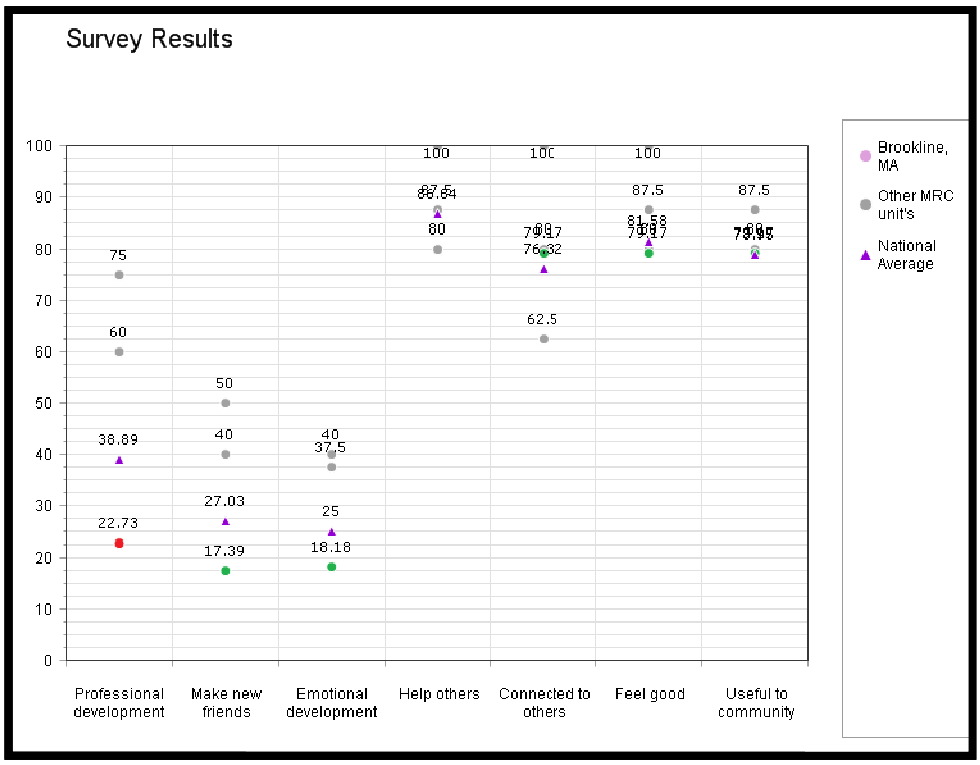
This online program allows each MRC unit coordinator to enter data from the questionnaires collected after a specific event and obtain a graphical report of her/his unit results. Before initiating data entry the MRC coordinator must sequentially code the paper questionnaire starting from number 1. For the survey questions it is possible to get a graphical report that compares the unit results with the average of the nation, as well as a report that shows the unit results overtime. This system allows the MRC unit coordinator to understand what areas of volunteers' engagement need further improvement. Because each unit's data is compared to others, MRC unit coordinators who use the website early in the season should return later to get more complete comparison data.

As illustrated in Figure 1, the results for the question asking participants to rate the importance of seven aspects of engagement as a volunteer are presented below. The results that are plotted indicate the percentage of individuals that rated the following seven categories a five (5) on a scale of not important (1) to very important (5). The purple triangles signify the national average. The red dots on the graph represent data points for the particular unit (in this example, from Brookline MA) that is significantly different from the national average. The green dots

represent data points for the same location that are not significantly different from the national average. Both calculations are done using a p-value of 0.05, which means that there is less than a 5% possibility that the results labeled as significant are actually due to chance.

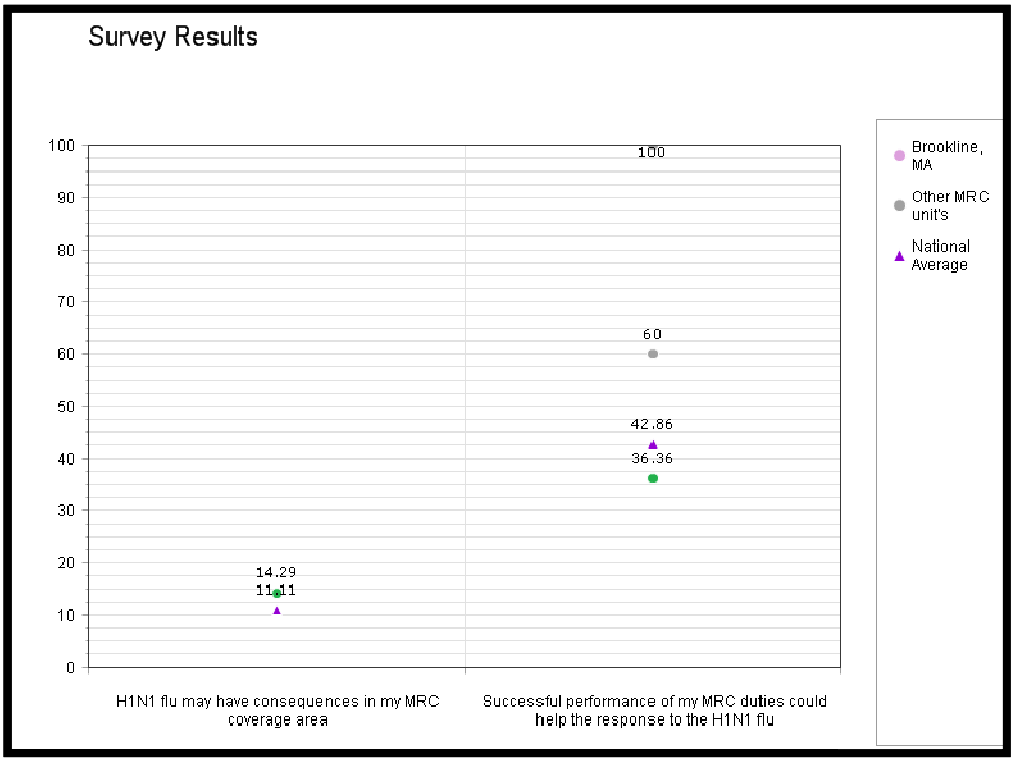
As one can see from Figure 1, 22.73% of Brookline MRC volunteers strongly agreed that volunteering was good for their professional development. The national average for this question is 38.89. The red shading of the data point indicates that Brookline's proportion for this question is significantly different from the national average. For the second entry in the graph below, 17.39% of Brookline MRC volunteers strongly agreed that volunteering was a good way to make new friends. The national average for this question is 27.03%, and the green data point indicates that Brookline's results are not significantly different from the national average. The remainder of the questions are interpreted in the same way.

Figure 1. Sample Feedback Report.



Another example, Figure 2 shows that 14.29% of Brookline MRC volunteers responded that they strongly agreed that H1N1 flu may have had severe consequences in their MRC coverage area. The national average was 11.11%. The green data point for Brookline shows that results were not significantly different from the national average. For the second question displayed in Figure 2, MRC volunteers were asked whether successful performance of their MRC duties will help with the response to the H1N1 flu. Approximately 36.36% of Brookline MRC volunteers strongly agreed with this statement, whereas 42.86% of MRC volunteers on a national basis strongly agreed with this statement. And the green data point for Brookline shows that the results for this question were not significantly different from the national average.

Figure 2. Sample Feedback Report.



Chapter Three. Using the Toolkit in the context of quality improvement

Overview

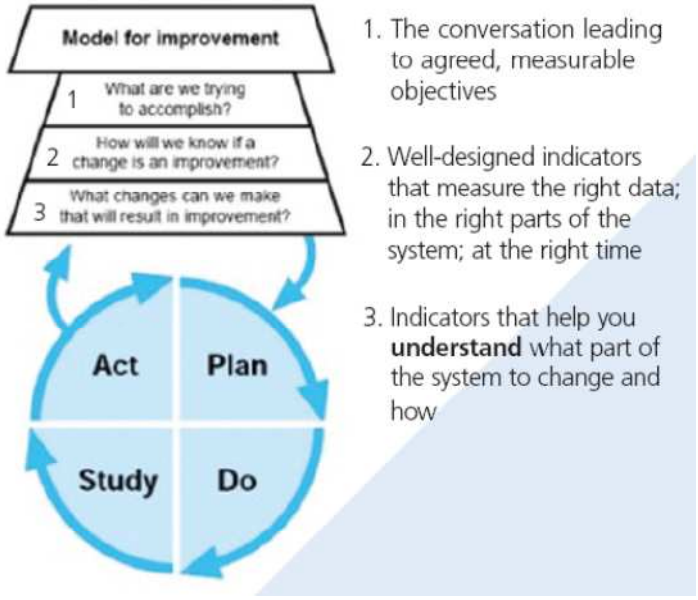
The evaluation approach outlined in this Toolkit is an example of the application of standard methods of quality improvement to public health practice. As the Institute of Medicine (IOM) has noted, there is a critical need to establish and validate metrics and criteria that will enable public health systems to achieve continuous improvement and demonstrate the value of society's investment. Yet, it has been difficult to objectively measure preparedness gaps and the progress that has been made thus far in emergency preparedness as well as systems improvement (IOM, 2008). Quality improvement requires more than goal-setting and measurement strategies. Although these concepts are important foundations, they do not necessarily lead to improvement on their own (IOM, 1997).

One of the concepts that would allow public health systems to achieve systems improvement is continuous improvement, rather than one-time initiatives. Ongoing improvements would allow organizations to continually change as their environments change. Furthermore, measures for improvement must be linked via evidence and desired outcomes since how well plans, policies, and procedures are executed are more useful than measures of structure. RAND researchers have noted that these processes can be measured during events that occur throughout the year such as annual flu clinics (Seid, 2007). Having a successful emergency preparedness plan requires more than measurement, goal-setting and accountability. Key improvements rely on implementing quality initiative practices that close the gap between the

actual and ideal performance. Through learning collaboratives and process-analysis techniques, such as process mapping and failure mode analysis, continuous improvement may be achieved (Lotstein, 2008).

Action planning

Figure 3. PDSA Cycle.



In order to test various changes, the Plan-Do-Study-Act (PDSA) cycle, which is a core systems improvement practice also known as the Deming cycle or the Shewhart cycle, can be used (Figure 3) (Institute for Healthcare Improvement [IHI], 2003). This cycle highlights the performance of various specific quality improvement practices and iterative feedback or reporting and describes the steps a team should go through in order to develop and implement innovations. Teams "plan" by defining goals and measures and determining how they will test them. They then "do" by implementing the tests developed or observing the plan. They "study" by comparing past performance to current results, and finally "act" by revising past protocols with improvements. Some branded models and methods for measurement and systems improvement include Six Sigma and IHI's Method for Improvement (Seid, 2007; Shortell, 1995).

PDSA cycles work best when used in the *rapid cycle change methodology*, a concept developed by W. Edwards Deming, in which teams investigate quality problems, develop (plan) and implement small-scale changes (do), measure the effects (study), and make changes until satisfied with outcomes (act). It is important to note that each PDSA cycle takes place over a short period of time, several times a year, which emphasizes "rapid cycles of improvement" (IHI, 2003). The key is to practice on events that may occur repeatedly (e.g. annually at flu clinics) and incorporate changes gradually. The cycle has been used in reducing reporting times for sexually transmitted diseases in prisons and infectious diseases. Success in these areas can be applied to bioterrorism or emerging diseases. Although reports are generally made on future improvements, changes are rarely incorporated. Therefore, performance management is critical for systems improvement (Mays, 2006; Seid, 2007).

Learning collaboratives

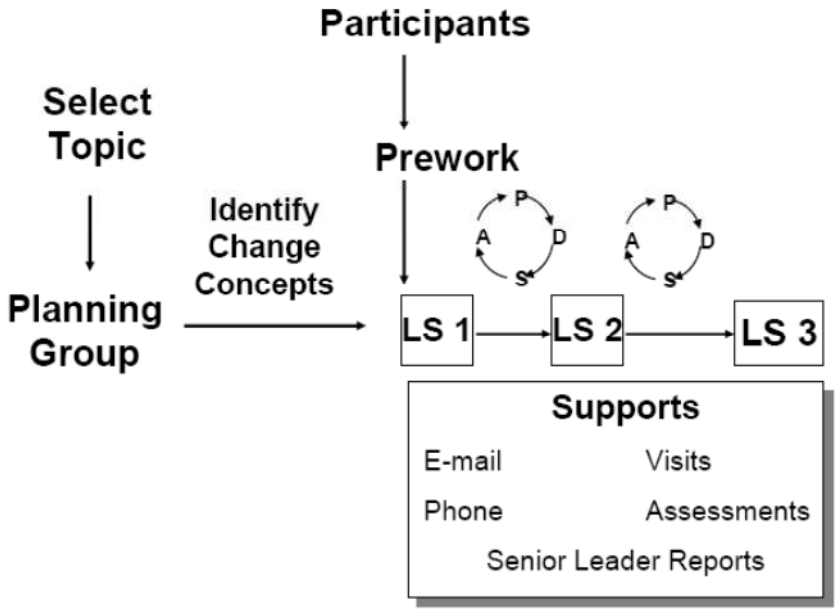
Learning collaboratives offer a structured way for organizations to improve one aspect of their service delivery system. The aim of these structured quality improvement collaboratives is to close the gap between potential and actual performance by testing and implementing changes quickly across many organizations (Øvretveit, 2002).

MRC units should use the results from the survey instruments to establish learning collaboratives with other MRC units in their federal region in order to identify the best practices for their weaknesses. Most commonly, learning collaboratives are modeled after the Breakthrough Series (BTS) model, developed by IHI (Nembhard, 2008; IHI, 2003). The Model for Improvement, which is identical to the quality improvement model used in the Breakthrough Series, is divided into four broad categories: (1) aims and goals, (2) performance measures, (3)

strategies and ideas for changes, and (4) the use of plan-do-study-act (PDSA) cycles (Lotstein, 2008; IHI, 2003).

Key components of a learning collaborative using the IHI BTS method include the change package, learning sessions, PDSA cycles, collaborative extranet and monthly report exchanges (IHI, 2003; Nembhard, 2008). The change package is defined as a toolkit of evidence-based practices and implementation strategies that includes an explanation of the rationale for each recommended practice, appropriate progress measures, data collection techniques, tools (e.g., sample forms and policy statements) and reference materials (IHI, 2003). Learning sessions are comprised of formal and informal interactions with other teams during the multi-day, face-to-face meetings; formal interactions involve teams sharing their experiences in implementing new practices (IHI, 2003). Site visits, while somewhat self-explanatory, are defined by IHI as visits by teams to other organizations in the collaborative to observe and discuss practice implementation. The collaborative extranet, an important feature of an IHI BTS learning collaborative is a password-protected Internet site where teams can post their performance data and information (IHI, 2003). This data is only viewable by participants in the learning collaborative, so it is confidential and secure. Monthly report exchanges are progress reports written by teams in prescribed template that documents past month's activities and self assessment of progress (IHI, 2003). Below is an illustration of the BTS learning collaborative model.

Figure 4. Learning Collaborative Flow Chart.



As can be seen from Figure 4, in the IHI BTS learning collaborative, multidisciplinary teams from participating organizations (in this case the teams would be MRC coordinators and LHD volunteers) decide on a specified topic to improve over the course of six months to a year. Each team will have an improvement advisor and faculty, who will comprise the planning group and identify change concepts prior to the first learning session. There are three learning sessions (as demonstrated in the diagram above with the designation LS 1, LS 2, LS 3) where participants will learn improvement techniques from experts (the faculty and improvement advisors) and be given the opportunity to share their experiences in implementing new practices with one another. Between learning sessions, teams implement changes in their own organizations using Plan-Do-Study-Act (PDSA) cycles in which they investigate quality problems, develop and implement small-scale changes, measure the effects, and make various changes for improvement (IHI, 2003). Teams learn from one another by participating in monthly conference calls, team-to-team

telephone calls, listserv discussions, site visits to other organizations, monthly exchange of written reports detailing improvement activities, and monthly posting of performance data to the collaborative extranet in between meetings (Kilo, 1999). After the collaborative ends, teams summarize their results and lessons learned, and present them to nonparticipating organizations at conferences (Kilo 1998, 1999; IHI 2003).

References

1. Colon-Emeric C, Schenck A, Gorospe J, McArdle J, Dobson L, Deporter C, et al. Translating evidence-based falls prevention into clinical practice in nursing facilities: Results and lessons from a quality improvement collaborative. Journal of the American Geriatrics Society 2006;54(9): 1414-1418.

2. Davies E, Shaller D, Edgman-Levitan S, Safran DG, Oftedahl G, Sakowski J, et al. Evaluating the use of a modified CAHPS survey to support improvements in patient-centered care: Lessons from a quality improvement collaborative. Health Expectations: An International Journal of Public Participation in Health Care and Health Policy 2008;11(2):160-176.

3. Institute for Healthcare Improvement. The Breakthrough Series: IHI's collaborative model for achieving breakthrough improvement. Boston: Institute for Healthcare Improvement, 2003.

4. Institute of Medicine. Improving health in the community: A role for performance monitoring. Washington: National Academy Press; 1997.

5. Institute of Medicine (IOM). Research Priorities in Emergency Preparedness and Response for Public Health Systems: Research Priorities in Emergency Preparedness and Response for Public Health Systems: A Letter Report. Washington: National Academy Press; 2008.

6. Kilo CM. Improving care through collaboration. Pediatrics 1999;103(1): 384–933.

7. Kushion ML, Tews DS, Parker MD. Enhancing Michigan's local public health accreditation program through participation in the multistate learning collaborative. Journal of Public Health Management and Practice 2007;13(4):410-414.

8. Lotstein, D., Ricci, K.A., Stern, S., Li, J., Reuberstein, L.V., Lurie, N. Enhancing Public Health Preparedness: Exercises, Exemplary Practices, and Lessons Learned, Phase III. Task B2: Final Report Promoting Emergency Preparedness and Readiness for Pandemic Influenza (PREPARE for PI) Pilot Quality Improvement Learning Collaborative. RAND technical report prepared for the U.S. Department of Health and Human Services, 2007.Accessed at http://www.rand.org/pubs/working_papers/2007/RAND_WR491.pdf.

9. Lotstein, D., Seid, M., Ricci, K., Leuschner, K., Margolis, P., Lurie, N. Using Quality Improvement Methods To Improve Public Health Emergency Preparedness: PREPARE For Pandemic Influenza. *Health Affairs Web Exclusive*, 2008. Accessed at http://content.healthaffairs.org/cgi/reprint/27/5/w328.pdf.

10. Mays G. Continuous quality improvement in public health organizations. In Continuous Quality Improvement in Health Care: Theory, Implementation, and Applications, ed. C McLaughlin, A Kaluzny. Boston: Jones and Bartlett, 2006; 357-406.

11. Øvretveit J, Bate P, Cleary P, Cretin S, Gustafson D, McInnes K, McLeod H, Molfenter T, Plsek P, Robert G, Shortell S, Wilson T. Quality collaboratives: lessons from research. Qual Saf Health Care 2002;11:345–351

12. Nembhard, IM. Learning and improving in quality improvement collaboratives: Which collaborative features do participants value most? Health Services Research, 2008.

13. Plsek P. Collaborating across organizational boundaries to improve quality of care. Am J Infect Control 1997;25:85–95.

14. Seid M, Lotstein D. Williams VL, Nelson C, Leuschner KJ, Diamant A, Stern S, Wasserman J, Lurie N. Quality Improvement in Public Health Emergency Preparedness. Annu Rev Public Health 2007;28:19-31.

15. Shortell S. O'Brien J, Carman J, Foster R, Hughes E. Assessing the impact of continuous quality improvement/ total quality management: concept versus implementation. Health Serv Res 1995;30:377-401.

Acknowledgements

Funding for this project was provided by NACCHO contract number 2008-103004.

The authors thank CAPT Rob Tosatto, Director, Office of the Civilian Volunteer Medical Reserve Corps; Charlie Ishikawa, Regional Public Health Planner, Advanced Practice Center for Cambridge, MA; and Dawn Sibor, Director of Emergency Preparedness, Brookline, MA for their insight and advice on creating this toolkit and for their comments on the final draft.

The authors also thank CDR Brad Austin, Office of the Civilian Medical Reserve Corps; Becki Chester, Program Manager, Public Health Preparedness, NACCHO; Jack Herrmann, Senior Advisor, Public Health Preparedness, NACCHO; Lisa Lee, Medical Reserve Corps Coordinator, Monmouth County, NJ; Marlene Martin, Medical Reserve Corps Coordinator, Summit Country OH; Alissa Minkoff, Medical Reserve Corps Coordinator; Region 4b Cambridge, MA; Steph Sharp, Medical Reserve Corps, Project Manager, Boston, MA; Lynn Pesely, Regional Medical Reserve Corps Coordinator, Sacramento, CA; Teresa Wood, Public Health Program Specialist, Newton, MA; and Lucille Young-Talbot, Special Projects, Medical Reserve Corps, Somerset County, NJ for their availability during the implementation of this toolkit.

The authors also thank Devon McIntyre, intern at Harvard School of Public Health Center for Public Health Preparedness, for editing the final draft.

Updated October 27, 2011

Volunteer Self Assessment Questionnaire

Thank you for taking the time to complete this important survey.

This survey will help us to understand and learn from practice in order to improve future MRC operations. Your responses are completely confidential and cannot be linked back to you.

Questionnaire Code = _____ (paper questionnaires should be numbered)

1. What is your current occupational status? If you are retired, please check the occupation you had before retiring AND the retired answer option as well

- ☐ Unemployed
- ☐ Healthcare worker/professional (□ Physician; □Nurse; □Other)
- ☐ Public Health Professional
- ☐ Administrative/office business
- ☐ Retired (also check your occupation before retiring)
- ☐ Other (please specify) _____

2. What is your age category?

- ☐ <20
- ☐ 20-30
- ☐ 31-40
- ☐ 41-50
- ☐ 51-60
- ☐ >60

3. What is your gender?

- ☐ Female
- ☐ Male

ICS Awareness

4. Referring to today's experience, tell us how much you agree or disagree with the following statements:

My role and responsibilities were clear to me.	*Strongly Agree*	*Agree*	*Disagree*	*Strongly Disagree*
I was fully aware of the proper chain of command established for this event.	*Strongly Agree*	*Agree*	*Disagree*	*Strongly Disagree*
I was aware of whom to go to if I had a question or concern.	*Strongly Agree*	*Agree*	*Disagree*	*Strongly Disagree*
I had the opportunity to identify limits to my skills and report them to my supervisor.	*Strongly Agree*	*Agree*	*Disagree*	*Strongly Disagree*
I knew whom to ask or where to find specific supplies/material.	*Strongly Agree*	*Agree*	*Disagree*	*Strongly Disagree*
I was aware where functions of the clinic, other than those under my responsibility, were performed.	*Strongly Agree*	*Agree*	*Disagree*	*Strongly Disagree*

Confidence in own role and as part of a team

5. Overall how would you rate your level of confidence in performing the work you were assigned to do?

☐ Very Confident
☐ Somewhat Confident
☐ Not Very Confident
☐ Not Confident at all

6. Please evaluate the following statements:

How comfortable did you feel in working with the other volunteers and health department staff?	*Very comfortable*	*Somewhat comfortable*	*Not very comfortable*	*Not comfortable at all*
How much did you feel a part of a team?	*A lot*	*Somewhat*	*A little*	*Not at all*

7. After receiving your assignment and training, how long did it take you to feel comfortable in your job or role?

- ☐ Immediately
- ☐ After few minutes
- ☐ In less than an hour
- ☐ In more than an hour
- ☐ I never felt comfortable

Confidence in Interacting with Clients/Patients

8. How confident did you feel in performing the following tasks?

Responding to patients' questions	*Very Confident*	*Somewhat confident*	*Not very confident*	*Not confident at all*	*Not applicable because did not pertain to my functions*
Recognizing patients with special needs/issues	*Very Confident*	*Somewhat confident*	*Not very confident*	*Not confident at all*	*Not applicable because did not pertain to my functions*
Finding responses and solutions for patients with special needs/issues	*Very Confident*	*Somewhat confident*	*Not very confident*	*Not confident at all*	*Not applicable because did not pertain to my functions*

Level of Motivation

9. Please rate how important each of the following aspects is for YOUR engagement as a volunteer, using a scale ranging from 1 (not important) to 5 (very important)

	Not Important				*Very Important*
Motivation – Personal / Professional Development					
Volunteering is good for my professional development	*1*	*2*	*3*	*4*	*5*
Volunteering gives me the opportunity to make new friends	*1*	*2*	*3*	*4*	*5*
Volunteering helps me through my personal emotional development	*1*	*2*	*3*	*4*	*5*
Motivation – Community Service					
I feel it is important to help others	*1*	*2*	*3*	*4*	*5*
By volunteering, I feel more connected to others and to my community	*1*	*2*	*3*	*4*	*5*
Volunteering makes me feel good	*1*	*2*	*3*	*4*	*5*
I believe my skills can be useful to the community	*1*	*2*	*3*	*4*	*5*

Personal Preparedness

10. Was it difficult to arrange your schedule to volunteer today?

☐ Yes, ☐ Somewhat, ☐ No

11. If yes, which of the following issues made it difficult?

☐ Lack of transportation
☐ Lack of childcare or eldercare
☐ Lack of time due to prior commitments
☐ Lack of time off from work
☐ Other reasons (please specify):_____

Perception of Severity and Participation

	Strongly Disagree				*Strongly Agree*
H1N1 (swine) flu is likely to have severe public health consequences in my MRC coverage area.	*1*	*2*	*3*	*4*	*5*
If I perform my MRC duties successfully, it will make a big difference in the success of the response to the current H1N1 (swine) flu situation in my MRC coverage area.	*1*	*2*	*3*	*4*	*5*

12. Was your participation in this event a worthwhile experience?

☐ Yes ☐ No

13. Have you participated in other MRC activities in the past 6 months?

☐ Yes ☐ No

If Yes, please specify which _____

Training

14. How useful was the training that you received as a MRC volunteer to prepare you to perform the work you were asked to do today?

☐ Very useful
☐ Useful
☐ Somewhat useful
☐ Not useful
☐ Had not received training

If the training was <u>NOT</u> useful please explain why (check all that apply):

☐ Given my background and experience I was able to perform the functions I was asked to do without being trained.
☐ The training received was too generic and not practice oriented.
☐ The training received was too difficult and hard to remember.
☐ The training I received was based on topics/issues not related to the functions I had to perform.

15. Given the range of activities to be performed and the availability of staff, do you think you were assigned to appropriate functions with respect to your background and experience?

☐ Yes ☐ No

If not, do you think there could have been a more appropriate role for you?

☐ Yes (please specify below)

_____

☐ No

14. Do you have any other comments?

Thank you for completing this survey!

Barriers to Volunteering Questionnaire

HARVARD SCHOOL OF PUBLIC HEALTH
Center for Public Health Preparedness

GEORGETOWN UNIVERSITY

NACCHO
National Association of County & City Health Officials

medical reserve corps

Thank you for taking the time to complete this important survey.

It should take you only about 5 minutes to answer all of the questions. Confidentiality is guaranteed; we are interested in aggregate results rather than individual responses.

1. What is your current occupational status? If you are retired, please check the occupation you had before retiring AND the retired answer option as well.

☐ Unemployed
☐ Healthcare worker/professional
(□ Physician; □Nurse; □Other)
☐ Public Health Professional
☐ Administrative/office business
☐ Retired (also check your occupation before retiring)
☐ Other (please specify)
_____

2. What is your age category?

☐ <20
☐ 20-30
☐ 31-40
☐ 41-50
☐ 51-60
☐ >60

3. What is your gender?

☐ Female
☐ Male

4. Were you contacted and asked by the (Institution) to volunteer at the (Place/Date) Flu Clinic?

☐ Yes
☐ No

Ability to Volunteer

5. Were you able to volunteer?

☐ Yes (If your response is 'yes', thank you for completing this survey! You have now reached the end of the questionnaire.)
☐ No

Reasons for Not Being Able to Volunteer

Referring to your inability to volunteer please respond to the following questions:

1. Did any of the following reasons prevent you from volunteering?

☐ I was scheduled to work
☐ Lack of childcare or eldercare
☐ Lack of time because of prior commitments
☐ Health problems (including a doctor appointment)
☐ Lack of transportation
☐ Other professional or personal obligations (please specify): _____

2. Did financial difficulties prevent you from volunteering?

☐ No
☐ Yes (please specify): _____

3. Did concerns about your safety prevent you from volunteering?

☐ No
☐ Yes, I was afraid of getting sick
☐ Yes, I did not feel comfortable in going to a neighborhood I am not familiar with.

4. Would the availability of any of the following services enable you to respond? (Select all that apply.)

☐ Childcare
☐ Eldercare
☐ Transportation
☐ Additional information on the incident or response process
☐ Other (please specify)

_____
_____
_____

Reasons for Not Being Able to Volunteer:
Skills and Motivation

1. Did you feel your skills were inadequate?

☐ No
☐ Yes, I felt my skills were inadequate (please specify what skills you think you would have needed):

_____
_____
_____

2. Were you able to attend the training sessions provided? If not specify the PRIMARY reason that prevented you from attending the training (check only one):

☐ Yes, I attended most of the training sessions provided
☐ No, I could not attend because of lack of childcare
☐ No, I could not attend because of lack of eldercare
☐ No, I could not attend because of lack of transportation
☐ Other (please specify): _____

3. Did you feel that the training provided was not adequate?

☐ No, it was adequate
☐ Yes (please explain below why)

_____
_____

4. Did lack of information prevent you from volunteering?

☐ No, I had all the information needed
☐ Yes, I did not have enough notice in order to make plans
☐ Yes, I did not know where to go and when
☐ Yes, I was not sure about my role at the event
☐ If you needed other type of information please specify below what type:

_____

5. Please rate how important each of the following aspects is for YOUR engagement as a volunteer, use a scale ranging from 1 (not important) to 5 (very important)

	Not Important				*Very Important*
Motivation – Personal / Professional Development					
Volunteering is good for my professional development	*1*	*2*	*3*	*4*	*5*
Volunteering gives me the opportunity to make new friends	*1*	*2*	*3*	*4*	*5*
Volunteering helps me through my personal emotional development	*1*	*2*	*3*	*4*	*5*
Motivation – Community Engagement and Responsibility					
I feel it is important to help others	*1*	*2*	*3*	*4*	*5*
By volunteering, I feel more connected to others and to my community	*1*	*2*	*3*	*4*	*5*
Volunteering makes me feel good	*1*	*2*	*3*	*4*	*5*
I believe my skills can be useful to the community	*1*	*2*	*3*	*4*	*5*

Severity and Response Efficacy

	Strongly Disagree				*Strongly Agree*
H1N1 (swine) flu is likely to have severe public health consequences in my MRC coverage area.	*1*	*2*	*3*	*4*	*5*
If I perform my MRC duties successfully, it will make a big difference in the success of the response to the current H1N1 (swine) flu situation in my MRC coverage area.	*1*	*2*	*3*	*4*	*5*

6. Have you participated in other MRC activities in the past 6 months?

☐ Yes ☐ No

If Yes, please specify which _____

Do you have any other comments?

_____

_____

Thank you for taking the time to complete this survey!

LHD Staff Questionnaire on MRC Volunteers

HARVARD SCHOOL OF PUBLIC HEALTH
Center for Public Health Preparedness

GEORGETOWN UNIVERSITY

NACCHO
National Association of County & City Health Officials

medical reserve corps

We are interested in your opinion about the MRC unit's role and effectiveness for research purposes. This research survey is voluntary and you can decide to opt out or to not answer specific questions at any time. This survey is implemented by the Harvard School of Public Health (HSPH) and Georgetown University in collaboration with the National Association of County and City Health Officials and your MRC unit.

This survey should take you only about 5 minutes to answer all of the questions. Confidentiality is guaranteed; we are interested in aggregate results rather than individual responses.

Section 1: Survey Introduction

1. The event you participated in was held at _____(location) on _____ (Month/Day/Year).

2. Please, select your role during the Flu Clinic (check all that apply):

- Incident commander
- Clinic director
- MRC Volunteer coordinator
- Operations director
- Exercise evaluator
- Other (please specify)

Section 2: Unit Characteristics

1. What were the unique characteristics/professional abilities of the MRC unit engaged in today's activities?

_____
_____
_____

2. What are the aspects of this MRC unit that need to be improved in terms of competencies and/or its composition of professional roles?

_____
_____
_____

Section 3: Competence

1. How confident were the MRC volunteers in fulfilling their roles during today's activities?

- Very confident
- Somewhat confident
- Not very confident
- Not confident at all

Please provide examples_____

2. How confident were the MRC volunteers in working within the defined Incident Command Structure?

- Very confident
- Somewhat confident
- Not very confident
- Not confident at all

Please provide examples_____

3. How effectively did the MRC volunteers participate in the "hotwash" after the event?

- Very effectively
- Somewhat effectively
- Not very effectively
- Not effectively at all
- Not applicable, there was no hotwash

4. Did the MRC volunteers seem to understand what was expected of them?

- Yes
- No

5. Were there roles played by the volunteers that otherwise could not been covered by any department staff?

- No
- If Yes, please specify:_____

6. What problems arose, and how were they solved?

_____
_____

Section 4: Training

1. How effective did training or orientation provided by the health department seem?

- Very effective
- Effective
- Somewhat effective
- Not effective

2. What additional training or orientation would have been helpful?

_____
_____
_____

3. Did the MRC volunteers seem prepared by virtue of their professional backgrounds, prior training, and day-of-event training to assume their assigned roles?

- Yes
- No

Section 5: Organizational Effort

1. Considering the number of volunteers, number of hours, and their professional training, describe the value of the assistance provided by the MRC unit in today's Flu Clinic:

_____
_____
_____
_____
_____
_____

2. Estimate the effort of the LHD in training and preparing the MRC unit for today's event (include prior outreach and training activities):

_____
_____
_____

3. How has the LHD workload changed as a result of utilizing volunteers in the Flu Clinic?

- Lessened
- Remained the same
- Increased
- Change in type of work done
- Do not know

Section 6: Human Relationships

1. Referring to today's Flu Clinic, how would you rate the level of integration between the MRC unit and the LHD staff?

- Very good
- Good
- Poor
- Very poor

2. What else should be done to help the LHD staff work better with volunteers?

_____
_____
_____

3. How would you describe the reaction of the Flu Clinic's clients to the volunteers?

- Favorable
- Mixed
- Unfavorable
- Do not know
- Please provide examples

  _____
  _____
  _____
  _____
  _____

Section 7: For the MRC Coordinator Only

20. What were the 3 most challenging factors in engaging the MRC unit during today's Flu Clinic:

- Recruiting a sufficient number of volunteers
- Recruiting competent /trained volunteers for specific functions (please specify which)_____
- Recruiting motivated volunteers
- Engaging MRC volunteers on the day of the Flu Clinic
- Providing sufficient training
- Identifying roles appropriate to the volunteers' background and experience
- Supervising the volunteers' work during the Flu Clinic's activities
- Providing meaningful and sufficient feed-back to the work done
- Identifying roles and tasks for all volunteers that came to the Clinic
- Other (please specify): _____

Thank you for taking the time to complete this survey!

Appendix A: Sample Narrative

Location A Flu Clinic
Month, day, year
Start time – End time

Part I: Description

Set up/arrival

We arrived at 8:30 am at the flu clinic in Location A. Eleanor Leader[1], from the Location A County Health Department was the liaison between the location where the flu clinic was held and the health department setting up the flu clinic. Eleanor knew how to set up the room based on her prior experiences with health department vaccination clinics. Two other volunteers, Elizabeth and her husband Max, were the second group of people to arrive that morning. Elizabeth and Max brought Thanksgiving leftovers, doughnuts and coffee for the volunteers. Margaret Smith, the MRC Coordinator, arrived at 8:40/8:45 am and began to set up the various forms for MRC volunteers to complete and read.

Volunteers

There were two shifts for MRC volunteers, specifically 9:00 am – 10:30 am and 10:30 am – 12:00 pm. There were three MRC volunteers per shift who all helped with the clerical and logistical part of the flu clinic. One of the MRC volunteers enjoyed helping at the flu clinic so much she decided to stay all morning, and worked from 9:00 am to noon, changing jobs for the second shift.

[1] All names in this document have been changed.

Margaret Smith circulated the just-in-time training (JITT) document and handed out job action sheets at 8:55 am, five minutes before the flu clinic opened. There was only one copy of the JITT document, which Margaret handed to each volunteer and watched them read it to ensure everyone had day-of-event training. There were three distinct jobs for MRC volunteers per shift. Volunteer one was in charge of registration. This person signed in clients, let them into the clinic, recorded the time of entry, signed out clients, recorded the time of exit, and provided the client with a record of immunization, if necessary. The second MRC volunteer helped individuals fill out the registration forms, clarify questions, and translate the registration form into Spanish, if necessary. The third MRC volunteer was in charge of putting stickers on child registration forms to serve as a visual reminder to the nurses to give the child a smaller dose of the flu vaccine. During the second shift there was not JITT for the MRC volunteers. Each second shift MRC volunteer replaced a first shift volunteer, who trained their replacement.

Three LHD nurses volunteered to give immunizations during the clinic on the Saturday in November 2008. These nurses were not given any day-of-event training and appeared to know exactly what to do. Similarly, they all knew each other well, as they had done this several times before this year at the 7 township clinics this fall.

There were three volunteers present from the church, Tom, Susan and Laura, as discussed in the introduction. Laura showed flu shot clients to a free clothes closet after they checked out. For security reasons, Tom and Susan alternated standing at the door to the location to let in individuals who were planning to visit the flu clinic.

Flu Clinic Clientele

About 65 clients came into the flu clinic between 9:00 am and noon. The client flow was evenly spaced in the morning, and there were rarely more than ten clients in the flu clinic at one time. There was a half hour mid-morning when there were no clients in the flu clinic at all. The clients were mostly Spanish speakers, with one family speaking Creole. There were many families with pre-school age children as there is a new law in "State A" mandating children age 0-59 months to have pneumonia and influenza vaccines for entry into preschool or day care.

Hotwash

One of the evaluators asked the MRC Coordinator if she was going to conduct a hotwash. She said she hadn't thought about it, but liked the idea of having a group meeting to go over what went well and what could be improved the same day as the clinic. After the last clients were seen around noon, a hotwash was conducted. Participants included Margaret Smith who served as the moderator; four MRC volunteers, and one church volunteer. The other two MRC volunteers from the first shift had left, since their shift ended at 10:30 am.

Several suggestions were presented at the hotwash. First, a couple of MRC volunteers noted the language barrier. One MRC volunteer suggested contacting Literacy Volunteers to see if they could recommend volunteer translators for the day next time. Jack Jones will contact Literacy Volunteers to try to set this up. Everyone agreed that MRC volunteer recruiters should target those with language skills.

MRC volunteers suggested that the MRC purchase a portable privacy screen to take to flu clinics so participants do not have to undress in front of the whole room when they get the immunization. Several children were extremely upset or nervous about receiving the vaccination to the point where they were scaring other children. A portable screen could help with this too. One MRC volunteer suggested bringing in small frozen balloons filled with water to soothe the injection site. Another suggested bringing crayons and paper for kids who are waiting for their vaccination or their parents. This could help keep the noise down in the flu clinic.

MRC volunteers agreed that it was difficult to determine who might need a translator while remaining culturally sensitive. One volunteer suggested triaging patients who need language help to a specific part of the flu clinic where translators will be stationed. Another suggestion was to have Spanish/foreign language videos playing in waiting area to explain how to fill out forms and what to expect for those who are getting vaccines for the first time. (No one suggested translating the forms and other materials into Spanish).

Part II: Lessons learned from the MRC process

The way the English speaking volunteers asked some of the questions to the non-English speaking clients on the informed consent form often guided individuals towards an answer. For example, an MRC volunteer asks “do you have Guillain-Barré syndrome” to the client while shaking her head to signal “no”. Not surprisingly, the clients said ‘no’ every time!

Some of the MRC volunteers were registered nurses, but were only given clerical tasks as the head nurse is held liable if anything goes wrong, and didn't want to take responsibility for MRC volunteers.

Part III: Observations from the survey coordinator

The nature and purpose/objectives of the flu clinic was to distribute leftover influenza vaccines from the seven previous flu clinics to "Location A" community members. The six MRC volunteers served exclusively in clerical and logistical roles. There were other volunteers participating in roles similar to those of the MRC volunteers, as alluded to earlier. These other volunteers included a secretary from the health department who served as a general guide and church security personnel for the duration of the flu clinic.

The health department did not provide training or orientation to MRC volunteers prior to the day of the clinic. Referring to today's flu clinic, the level of integration between the MRC unit and the LHD staff was very good. The reaction of the clients to the volunteers would be accurately described as favorable. One example would be that the Spanish-speaking clients appreciated the volunteers attempting to translate the forms into their native language. Another example would be that one mother brought her child in for immunization but was too afraid to get the vaccine herself. A MRC volunteer talked the mother into getting the vaccine as well.

The MRC volunteers knew what was expected of them and were very confident in fulfilling their roles during today's activities. As there were only 6 MRC volunteers, the incident command structure was not put into action. Most of the volunteers had worked at vaccination clinics in the past and agreed that the incident command structure was not

necessary for this flu clinic. The MRC volunteers participated in the hot wash after the exercise very effectively. Everyone had at least one suggestion for improvement. Everyone thought the flu clinic went really well and was happy to be involved.