# Guide for Conducting Peer Reviews of Community-Based Health Sciences Education Programs

September 2015

**Desireé Michaels** and **Ian Couper**, Centre for Rural Health, University of the Witwatersrand

# Table of Contents

# ACKNOWLEDGEMENTS

The authors wish to thank our colleagues in the Collaboration for Health Equity through Education and Research (CHEER) together with **Steve Reid** for his leadership of CHEER and for commenting on this guide.

We also thank the following people for their contribution of ideas and review of the document:

- **Zohray Talib** of the Medical Education Partnership Initiative Coordinating Center at George Washington University
- **Rebecca Bailey** and **Heather Ross** of Capacity*Plus*/IntraHealth International
- Members of the University of Zimbabwe College of Health Sciences (UZCHS) peer review team: **Mwapatsa Mipando** (University of Malawi), **Mpho Mogodi** (University of Botswana), and **Moses Simuyemba** (University of Zambia).
- The Dean of UZCHS, **Midion Mapfumo Chidzonga**, and his project team, namely, **Antony Matsika**, **James Hakim, Shemiah Nyaude**, the field attachment office administrators, and the many individuals at UZCHS who supported the review team with assistance and information.

We also acknowledge Atienne Solomon Sagay as the co-chair of the Medical Education Partnership Initiative Community-Based Education Technical Working Group.

Finally to the Medical Education Partnership Initiative (MEPI), thank you for the desire to learn and share.

This work was funded by USAID and PEPFAR through the Capacity*Plus* project and the Medical Education Partnership Initiative (MEPI).

# ACRONYMS AND DEFINITIONS

| | |
|---|---|
| CBE | Community-Based Education |
| CHEER | Collaboration for Health Equity through Education and Research |
| MEPI | Medical Education Partnership Initiative |
| NIH | National Institutes of Health |
| PEPFAR | The US President's Emergency Plan for AIDS Relief |
| TWG | Technical Working Group |
| USAID | United States Agency for International Development |
| UZCHS | University of Zimbabwe College of Health Sciences |

## Definitions

| | |
|---|---|
| Peer review | **Peer review** is the **evaluation** of work by one or more people of similar competence to the producers of the work (**peers**). It constitutes a form of self-regulation by qualified members of a profession within the relevant field. |
| Rural/ underserved | "There is no single, universally preferred definition of rural that serves all purposes. Geographic access to health care —both the availability of and distance to—is among the most significant barriers to care rural communities face. In both developing and developed nations, health care infrastructure, including both facilities and equipment, tend to be concentrated in urban centres" (Eagar et al., 2014, p.12). While underserved and rural areas share certain problems in common, underserved areas may be situated in urban areas. |

# INTRODUCTION

## The Medical Education Partnership Initiative

The US President's Emergency Plan for AIDS Relief (PEPFAR) Medical Education Partnership Initiative (MEPI) is a five-year (2010–2015) initiative supporting 13 medical schools in 12 African countries with the aim of increasing the quantity, quality, and retention of graduates with specific skills for addressing the health needs of their populations. MEPI is funded by both PEPFAR and by the National Institutes of Health (NIH). Capacity*Plus* is the USAID- and PEPFAR-funded global project, led by IntraHealth International, which is uniquely focused on the health workforce needed to save lives, improve health, and achieve the Millennium Development Goals. Capacity*Plus* collaborated with the MEPI Coordinating Center (MEPI-CC) and the MEPI Community-Based Education (CBE) Technical Working Group (TWG) to build capacity for CBE within the MEPI network of medical schools.

## Background and Purpose

From November 2014 through June 2015, Capacity*Plus* and MEPI conducted a peer review of the CBE component of the medical education program at the University of Zimbabwe College of Health Sciences (UZCHS) in Harare, Zimbabwe. The purpose of the review was twofold: 1) to apply an external peer review approach to evaluate the CBE program of UZCHS in relation to how well it is preparing doctors to work in rural and underserved areas in Zimbabwe; and 2) to expose colleagues in the MEPI community to the process and tools of conducting a peer review.

The Collaboration for Health Equity through Education and Research (CHEER) peer review approach was adapted to the context through the modification of the CHEER protocol and instruments (Reid 2004). The protocol was submitted to the Medical Research Council of Zimbabwe for ethics approval. The experience was described as very positive by both school representatives and peer reviewers. One of the intended outcomes of the peer review was to implement the approach at other institutions in different countries. The need for this step-by-step guide emerged to ensure that the process maintains integrity and is implemented in a systematic manner.

CHEER developed an approach to conduct peer reviews at health sciences institutions in South Africa and subsequently in other countries (Reid and Cakwe 2011). Peer review has been used to improve and reflect on a number of existing curricula and educational processes, including web-based resources (Knight et al. 2004). The original research question for CHEER was focused on the most appropriate educational strategies that would support health sciences graduates to choose to practice in rural and underserved areas in South Africa once they had qualified (Couper et al. 2007). It was subsequently used to review the relationships between health sciences faculties and health service partners, and also the extent of social accountability at institutions (Bin Abdulrahman et al. 2015; Michaels et al. 2014). Prior to the peer review at UZCHS, it was also used for a peer review by CHEER at Christian Medical College, Vellore, India (Reid et al. 2010).

The focus *of a peer review* is on providing health professional schools with organizing principles for an evaluation and an opportunity to reflect on their own institutional standards

that will help them become more accountable in addressing both their own mission and some of the inequities in the health system, while it aims to allow supportive peers to offer objective feedback to health sciences schools in order to facilitate change toward greater accountability. This differs from the purpose and approach of external accreditation processes; while external accreditation processes are there to ensure that standards are met and maintained to promote safe patient care and optimal educational standards, the peer review process is conducted by "a panel of critical friends" to assist the host institution with quality improvements in specific identified focus areas.

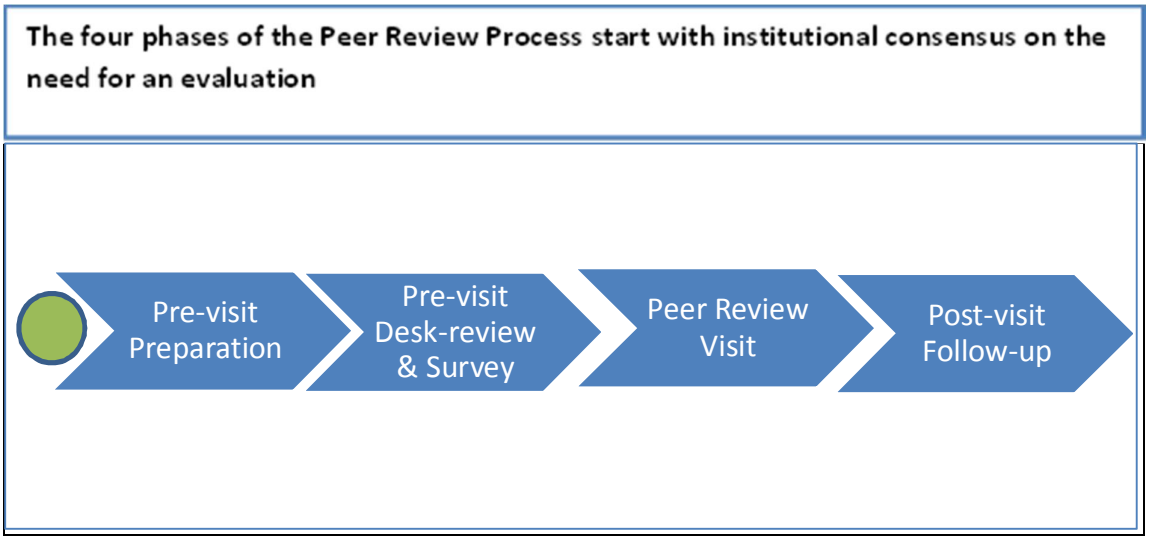
### Target audience

This guide is targeted at ***educators and leaders*** in health sciences faculties and medical schools. While primarily focused on MEPI-supported schools, it is expected to be of assistance to health professions schools internationally that are interested in such an evaluation and improvement approach.

### Aim of the Guide

The aim is to provide a step-by-step guide for any institution wishing to embark on such a process.

**Figure 1: Graphic Representation: Peer Review Process**



# PART ONE: PRE-REVIEW PREPARATIONS

The work involved in conducting a peer review commences approximately six-to-nine months before the actual review visit to the host institution. There are several planning components as outlined below (also see Appendix 8).

## Obtain Institutional Approval

The first step in conducting a peer review is to obtain the approval of the Dean /relevant authorities at the host institution. This request may be a felt need by a member of staff in a department and communicated through the appropriate channels. It is expedient to obtain the support of the head of the relevant institution (usually the Dean) in writing or noted in minutes of a faculty meeting. Without the buy-in and ideally the ownership of the process of review as well as the commitment to the adoption of recommendations by the hosting institution, it is likely to be a waste of time and resources.

## Identify Institutional "Champion"

It is essential that a local institutional contact person is identified to drive the process at the institution. It should be noted that a **peer review is an internal process of evaluation**, using independent external reviewers who are not affiliated to the institution. Thus the local champion is critical to the success of the process.

The focal person should fulfil the following criteria:

- Be an academic in good standing, involved in teaching and curriculum planning
- Have the ability to develop the review protocol and instruments based on the identified need for improving the process and outcomes of the curriculum or program
- Have authority to liaise across departments (which authority may be delegated by the Dean)
- Have the ability to lead the implementation of recommendations arising out of the review
- Have access to administrative support to assist with logistics.

## Resource Requirements

A review, like any other research activity, incurs costs and the following budget items are basic considerations:

1. Flights and accommodation for reviewers (if out of town). A minimum of three reviewers are considered necessary
2. Per diem/subsistence allowance for reviewers, depending on institutional and local arrangements
3. Refreshments and meals for the review team on review days

4. Printing and copying—e.g., pre-visit surveys (if hard copy distribution is favoured); interview schedules, list of interviewees, supporting documentation from the institution to validate data such as course curriculums, relevant minutes of meetings, organograms and copies of previous evaluation reports
5. Percentage time of support/administrative staff and local champion at host institution depending on institutional policies and arrangements.

## Selection of Peer Reviewers

The criteria for selecting peer reviewers would include:

- Colleagues who are experts in the program to be reviewed
- Research and interviewing skills
- Must have time for adapting the protocol and tools, conducting the peer review visit, and following up after the visit (including drafting a report and presenting the results to the school) as well as possibly writing a manuscript for publication
- At least one of the reviewers must have experience or training in the peer review process, with everyone having engaged with this guide.

It should be noted that members of the host institution are **not** part of the **review panel** because their presence may inhibit candid responses by the students and staff interviewed. However, they should be invited to participate in the orientation and debriefing sessions as well as in the analysis and feedback preparation, in order to maximize understanding by reviewers of the data collected. Thus, they should be fully cognizant of the discussions of the review team. In this respect the host institution representatives and the peer reviewers together form the **review team**.

A minimum team of three reviewers is required. However, depending on the time frame for the visit and the number of interviews, more reviewers may be required in order to split into parallel interviewing sessions. Ideally, a dedicated report writer should be part of the team (see below).

The team members should be assigned the following key roles:

1. *Leadership*
    - Liaise with the host institution prior to the visit to assist with protocol development
    - Manage the review project (liaise with host institution to convene meetings between hosts and reviewers, monitor progress of preparation and reporting processes, coordinate the visit with the other identified review team members)
    - Lead the review and feedback to the institution
    - Review and approve the final report submission to host institution (if report writing is delegated to another member).
      **Note:** all reviewers are required to provide contributions, review and comments during the development of the report.

2. *Pre-visit survey preparation, distribution, analysis and reporting*
    - Liaise with host institution regarding dissemination and collection of pre-visit questionnaires
    - The data from the two sets of pre-visit surveys (faculty and student) must be captured and analyzed
    - The results must be reported to the reviewers initially in order to inform the development of the interview schedules. The examples in this guide may be adapted.

3. *Scribing:*
    - A main scribe is required during the visit to coordinate and collate interview notes from all reviewers
    - Collection, collation, and abstraction of data from supporting documentation at the institution
    - Report writing and finalization of the review report in collaboration with the team.

4. *Interviewing*

    Ideally, it requires a minimum of three people to conduct an interview: one person will lead with the introduction and subsequent questions can be divided between the team in order to improve objectivity and reflect a diversity of perspectives while everyone writes notes on the responses and context. One main scribe may be appointed per interview.

## Selection and Definition of the Program to be Reviewed

For the review to be effective the school must clearly define what the program is, and what the components, goals, and expected results of that program are. For example, when evaluating a CBE program, at minimum, the school must define the goal of the CBE program in terms of the competencies and expected placement of its graduates. The program should not be evaluated if its intended goals and key curricular components cannot be clearly defined by the school. If a school offers a range of different health professional programs, it is wise to identify which of those will be reviewed and what the focus would be; while most CHEER reviews have included a number of different training programs, it should be recognized that the more programs included, the more resources required. The tools used are not designed or intended for reviewing an entire school or faculty.

## Protocol Development and Ethics Approval

The peer review process is based on principles of research. A protocol and data collection tools that are approved by the host institution's Research Ethics Committee and any other mandatory ethics review committee as required must be written in consultation with the peer reviewers and submitted by the host institution to its relevant approval channels. It should be noted that in some instances, reviewers may also need to submit the protocol to their respective institutions in order to participate (this depends on the rules of the respective institutions). The role of the reviewers in the protocol development is to give feedback on the protocol and instruments adapted by the host institution.

The original CHEER protocol and instruments were guided by the World Health Organization's 1987 report on innovative schools for health personnel (Richards et al. 1987)

and subsequently adapted. Examples of various CHEER protocols are available at www.CHEER.org.za. The host institution decides what programs they wish to evaluate, as well as which aspects of the curriculum for each program they wish to evaluate. The protocol should include the components described in Appendices 1-2.

## Identify Stakeholders

The host institution will decide who the key informants should be, in consultation with the peer review team leader. The identification of all stakeholders relevant to the particular program or curriculum being evaluated is crucial. Typically, the following faculty members might be key: those who chair relevant committees, heads of programs and relevant departments, staff involved in community-based education and curriculum development or related fields. Other stakeholders may include institutional heads (university), teaching staff, support staff (drivers, hostel managers, and administrators), clinical preceptors and staff at the community-based health facilities, clients, community leaders (e.g., health committee members, traditional leaders), representatives of health service, education or NGO partners, students and graduates/alumni. These may involve personnel beyond the employ of the institution—e.g., community-based collaborators such as district health officers, community health workers, traditional leaders who are co-opted into student training programs, and Ministry/Department of Health personnel. Faculty and supervisors who are working directly with students in the field and in the classroom, students, and alumni are important stakeholders too.

*The following questions may help guide you in identifying stakeholders:*

- *Who are the people/types of people with a stake in the program?*
- *Who benefits?*
- *Who is responsible for the program?*
- *Who takes part in it?*
- *Who encounters those who take part?*
- *Who experiences it indirectly?*
- *Whose lives are affected by it?*
- *Who pays for it?*
- *Who makes decisions about it?*
- *Who else cares about it (at least its general scope)?*

***Source:*** *Bottlenecks and Best Buys Approach. Available at: http://www.capacityplus.org/guide-for-applying-the-bottlenecks-and-best-buys-approach*

## Briefing of Key Stakeholders

The review is most successful if it has the support from the highest office of the faculty wishing to embark upon it, such as the Dean of Health Sciences, as well as the key stakeholders mentioned above. To ensure the success of the review, it is important that key stakeholders are, firstly, aware of it already from the planning stages of a review and, secondly, participate and reach consensus in the setting of objectives for the review, so that, finally, they feel free to participate in providing data (written and oral). This requires communication with key stakeholders prior to finalization of protocol development and throughout the process.

Ensure there is a platform or infrastructure for the flow of ideas and information dedicated to the purpose of the peer review. There may be an existing structure or committee that can serve this purpose such as a committee for community-based education or a teaching and learning committee. There will be many people who are passive (but want to know) while others may volunteer to take a more active role in developing the protocol and participating in the review.

It is suggested that you conduct briefing meetings with individuals or groups as is expedient in the particular circumstances. The purpose of these meetings is to share the objectives of the review, the timeline and expected results, while engaging stakeholders regarding the above-mentioned as well as giving them an opportunity to ask questions.

The level of buy-in among stakeholders will impact on the institution's ability to implement the recommendations and changes that may arise as a result of the review.

## Logistics

(See Appendix 8: Project Timeline)
In addition to the focal person/faculty champion, it is essential to have administrative support for the peer review. The role of administrative support staff could include the following: project management (ensuring that the set goals are achieved and timelines are set and adhered to); assisting the local champion to liaise with the external review team (including scheduling remote planning meetings); arranging travel, accommodation and airport transfers of reviewers if required; program scheduling; respondent recruitment; dissemination of information and surveys, to mention a few. These activities are done in consultation with the external review team leader.

Ensure that Internet connections are available to all participants in the planning of the review. Using Skype™ for meetings is an efficient tool.

Identify the data capturing and analysis capacity at the host institution and make arrangements that are feasible. There are free data analysis packages but most institutions will have access to software.

# PART TWO: PRE-VISIT DESK REVIEW AND SURVEY

## Pre-visit Desk Review of Relevant Documents

It is crucial that supporting documentation be obtained from the institution that relates to the program under review (preferably prior to the review visit). These include the faculty mission statement, information regarding student selection policies, student enrolment numbers, staffing, organograms, number and types of departments, information relating to previous evaluations (if any) and such like. In addition, completed pre-visit faculty questionnaires should be submitted with supporting documentation such as course outlines and a description of learning objectives relating to activities under scrutiny (see below). This is an important step in the preparation and refinement of interview schedules used during the visit. By gathering as much factual data beforehand, peer reviewers are able to maximise the visit to gain greater insight and opinions from those interviewed, thereby enriching the evaluation outcomes.

## Survey Distribution

Once the pre-visit questionnaires have been developed and approved together with the protocol and a time line arranged for distribution, collection, and collation, the host institution is responsible for the timely distribution of the surveys to faculty, preceptors and students. It is advisable to provide orientation to faculty especially regarding the completion of the questionnaires. Often a covering letter, written by the institution, which details the review project together with guidelines for completion of the survey, is sufficient orientation. Usually the staff questionnaire is not based on individual opinion but rather factual responses regarding the curriculum and course outlines. Those with an overview of the department or course may be best equipped to complete these surveys and should be targeted specifically although local protocols for departmental communication should always be observed.

**Hint:** Ensure that the timing of the distribution of surveys does not clash with any other major institutional data gathering such as the pending visit of external accreditation committees or curriculum revision exercises.

Student surveys are usually based on individual experiences and data. The survey form may need to be adapted to include graduates if the protocol requires their participation. Experience has taught us that students will complete these survey forms (in hard copy) when they are targeted as a "captive audience'"during lectures or other student activities. Immediate collection of forms will yield a higher response rate. Graduates may be tracked through a "snowball sampling" method with students and preceptors in districts being the key to gaining access to them if there is no institutional graduate tracking system in place.

### Survey analysis and reporting

The review team should decide and agree upon where and how the data will be captured and analyzed. If the host institution does the data capture, there should be a method of validation and access by one or more members of the external review team. Even if data are captured by the host institution, the review team should be responsible for the analysis and reporting of the data. The pre-visit survey report must be made available to the review panel prior to the visit and can be formally presented in person at the preliminary feedback session that will be held at the end of the visit.

### Refinement of interview guides

The results of the pre-visit surveys will inform the development of the interview guides per target audience as described above (see examples of guides, Appendices 3-7). The focus for the development of interview guides for the Dean, management and faculty will depend on the quality of data and the level of completion of the survey forms. In our experience, faculty have not always completed the survey forms comprehensively or in sufficient numbers with regard to course curriculum matters, so that these issues need to be explored during the peer review visit interviews.

# PART THREE: THE PEER REVIEW VISIT

## Reviewer Briefing

This is held before the interviewing processes start, often on the day or night of the team's arrival. It is often the first time that some of the reviewers meet each other but they should have communicated via e-mail and Skype during the planning phase. Prior to commencing the business of the review, a face-to-face briefing of all reviewers is required to ensure that everyone is aware of the schedule, the approach, and logistics for the duration of the review visit. At this time it is a good idea for the host institution to provide the reviewers with an overview of the institution and program to be reviewed and other contextual information deemed pertinent.

*It is helpful to draw up an information pack that contains the following documents:*

- ✓ *Copy of the visit schedule/program*
- ✓ *Copy of the review protocol*
- ✓ *Copies of the interview schedules*
- ✓ **Copies of the consent form*
- ✓ *Any other relevant information deemed necessary*

**Ensure that there are sufficient copies of the consent forms for interviewees.*

It is helpful to draw up an information pack that contains copies of the following documents:

- The visit schedule
- The peer review protocol
- Analysis of the pre-visit surveys
- The interview schedules
- The consent form
- Any other relevant information deemed necessary.

It is usual practice that the host institution ensures that all copies are made and available but these are issues that can be discussed and agreed upon beforehand.

## Suggested Visit Schedule

In consultation with the school, the peer review team should identify the visit dates and draft a tentative schedule. The school should review and give feedback on the schedule. At least one teleconference between the peer reviewers and school champion/focal person is recommended to discuss and agree on the schedule. The duration of the peer review visit depends on the focus of the review. It is usually four to five days, which includes time for site visits and off-site interviews. One or two of the five days could be allocated to travelling to off-site teaching platforms if the evaluation involves community-based learning.

**The following should be noted when drawing up the schedule:**

1. Arrival times of reviewers must be taken into account and the review team briefing scheduled accordingly so that everyone is present at the first meeting.
2. The number of teams will depend on the number of interviews to be conducted for the duration of the review. There will usually be a maximum of two teams with three members each.

3. Interviews should be of one hour duration with 10 minute intervals between interviews for reviewer discussion.
4. Two venues could be allocated for parallel interview sessions where interviewees come to the reviewers. This will save time as opposed to reviewers moving around to meet with various interviewees. However, when meeting with the institutional head(s), for example, the Dean of Health Sciences, head of health professions education, or head of the relevant curriculum committee(s), it is advisable for all reviewers to be present in that meeting and interview in order to "get the big picture."
5. Include tea breaks and lunch breaks for the reviewers. This is also an opportune time for the hosts to gather with the reviewers to find out how things are going.
6. It is a good idea for someone from the host institution to be available for making photocopies, informing the reviewers of cancellations or substitution of interviewees, following up on issues, etc.
7. Sufficient time should be allocated for site visits. More than one interview may be arranged at the sites. However, it is a good idea for the entire team to meet with the Head of the facility before interviews with the staff and other stakeholders.

**Table 1: Example of Schedule for Day 1**

| **Date** | **Time** | **Activity** | **Respondents** (refers to interviewee/s) | **Action** (refers to the review team/s) | **Responsible person/s** |
|---|---|---|---|---|---|
| **Day 1** | 8.00 – 9.00 am | Meeting with the hosts for briefing on procedures and confirmation of the schedule | | Review panel and host representatives . | |
| | 9.15 – 10.15 | Interview | Dean and Deputy Dean of undergrad program | Team 1 & 2 | |
| | 10.15 – 10.30 | | | | |
| | 10.35 – 11.35 | Interview | [Title, Name, Surname, Position, Dept.] | Team 1 | |
| | | Interview | [Title, Name, Surname, Position, Dept.] | Team 2 | |
| | 11.45 – 12.45 | Interview | [Title, Name, Surname, Position, Dept.] | Team 1 | |
| | | Interview | [Title, Name, Surname, Position, Dept.] | Team 2 | |
| | 13.00 – 13.30 | | | | |
| | 13.30 – 14.30 | Interview | [Title, Name, Surname, Position, Dept.] | Team 1 | |
| | | Interview | [Title, Name, Surname, Position, Dept.] | Team 2 | |
| | 14.40 – 15.40 | Interview | [Title, Name, Surname, Position, Dept.] | Team 1 | |

| Date | Time | Activity | Respondents (refers to interviewee/s) | Action (refers to the review team/s) | Responsible person/s |
|---|---|---|---|---|---|
| | | Interview | [Title, Name, Surname, Position, Dept.] | Team 2 | |
| | 15.40 – 17.00* | Review panel debriefing meeting for day 1 (including school representatives) | | | |
| * The peer reviewers may want to do a debriefing on their own and have morning debriefing sessions that include school representatives. | | | | | |

## Interviews

A semi-structured interview is conducted with each interviewee on a schedule arranged by the host institution, in consultation with the team leader. Each team should use the appropriate standardized interview guide for the specific target audience. For example, a specific interview guide is drawn up for the Dean and other faculty heads such as the undergraduate Dean and Health Professional Education Director, while another guide is used for heads of departments and all members of staff/faculty; another may be adapted for clinical preceptors based off-campus or at district health facilities, another for students and yet another for community members/leaders.

It is expedient to start with the authority figures of the institution with all reviewers present and then move on to the rest of the interviews. Interviews may be conducted with individuals or in pairs when representatives of the same department are scheduled.

*Reviewers are peers and should therefore have an attitude of flexibility and adaptation during the process.*

Interviews are not normally audio- or video-recorded to allow participants to speak freely. The time taken for transcription and reporting makes it counterproductive to the spirit of the review and will increase the costs as well. It is therefore important to take adequate notes during the interviews. Remember the approach of the reviewers should be that they are interviewers having a "**conversation with a purpose.**" Reviewers should bear in mind that they are peers who are called upon to assist in an in-house evaluation and reflection process and there should therefore be an attitude of flexibility and adaptation during the process.

A nominated member of the review team should ensure collaboration with a focal administrative support person from the host institution during the visit to obtain supporting documentation such as course outlines and other relevant documentation pertaining to the review focus if these are not given by interviewees at the time of the interview.

**Who should be invited to the preliminary feedback meeting?**

As a general rule:
All who participated in the interviews!

- Faculty
- Administrators involved in the program under review
- Student representatives (if it is not possible to include all who participated)
- Key stakeholders who may not have participated in interviews but will be involved in program improvement initiatives.

## Daily Debriefing Sessions

The reviewer debriefing meetings at the end of each day, led by the team leader, are essential; they allow the peer reviewers to meet together to compare impressions and summarize the data. This forms an integral part of the data analysis. Remember that host institution representatives should be included in these meetings and assist with answering queries, clarifying facts, and advising on strategic directions regarding the line of enquiry.

During this meeting the team leader will ensure that the main scribe has access to all interview notes (supplied by each reviewer). Sub-teams (interviewing groups) compare information and identify key issues for further exploration and clarification. A process of recursive data abstraction (summaries of summaries) can begin. The reviewers should also reflect on the process and make suggestions for any immediate changes they wish to make in their approach.

A brief separate session should also be set aside for the peer reviewers to reflect on their impressions and feelings of the process in order to ensure that each feels heard and difficulties that may arise can be addressed.

## Draft Analysis and Preliminary Feedback Guidelines

The CHEER framework was developed to guide health sciences schools to design policies and curricula with the aim of preparing health professionals to practice in rural and underserved areas in order to strive for equity in health care provision. It is used effectively to provide institutions with a model for identifying strengths and weaknesses in its exposure of students to practice in rural and underserved areas. It is important to note that the framework places greater emphasis on "rural/underserved" exposure through CBE activities. On the other hand, CBE could take place in both rural and urban locations.

Through our experience at UZCHS, we adapted the CHEER evaluation framework (see Table 2), which focuses on evaluation of an institution's capacity to prepare students for rural or underserved practice. Two criteria were added to the Framework, namely, "Program Outcomes" and "Program oversight and Co-ordination."

It is essential that a **preliminary feedback meeting** is held at the end of the review visit before reviewers leave the host institution. Everyone who may be affected directly by the evaluation should be invited **by the host institution's local champion** to this meeting but especially those who were interviewed. This is another opportunity for reviewers to obtain information as well as verify factual issues where there may be uncertainty and to allow inaccuracies that may have crept into the data to be pointed out. This meeting is therefore seen to be part of the data collection.

The presentation would usually involve an overview of the aim and objectives of the review and then the results of the pre-visit survey as well as the main themes that emerged during the visit including an overview of the CHEER evaluation framework. At this stage the focus is on conclusions rather than recommendations (unless these were solicited from respondents during the review as part of the data). There should be a time for discussion and an opportunity for the participants to reflect on how they experienced the process and what they think about the conclusions reached thus far. Usually at this meeting, timelines for the draft report distribution and feedback from the institution to the reviewers can be negotiated. This may also be done in a private meeting with the host team.

**Table 2: Adapted CHEER Framework**

| | **Score:** | **Less than expected** | **Adequate** | **Better than expected** |
|---|---|---|---|---|
| **1** | **Faculty Mission Statement** | Rural/Underserved (R/U) not mentioned | Some mention or indirect reference | Explicitly supported |
| | **Comments:** | | | |
| **2** | **Resource allocation** | Nil | Some staff & money but not enough | Sufficient staff & money for sustainability |
| | **Comments:** | | | |
| **3** | **Student selection** | No policy on recruitment from targeted areas R/U | policy exists | >25% targeted |
| | **Comments:** | . | | |
| 4 | **Program outcomes** | There are no specific outcome objectives for the program | Some components of the program have outcome objectives, but they are not well defined | outcome objectives for the program are written and shared with all faculty involved in the program |
| | **Comments** | | | |
| **5** | **Program Oversight and Coordination** | No mechanism to co-ordinate and align components of program between departments and academic years. Administrative co-ordination only. | Some academic oversight at departmental level; some academic co-ordination | Good coordination with senior level support and academic oversight |
| | **Comments:** | | | |
| **6** | **First exposure** | Final year if at all | Middle years | First year |
| | **Comments:** | | | |
| **7** | **Length of exposure** | Nil | < 5% of practicals in R/U areas or CBE activities | >25% of practicals in R/U areas or CBE activities |
| | **Comments:** | | | |
| **8** | **Practical experience** | Nil | Students watch & listen to others | Students hands-on & contributing |
| | **Comments:** | | | |
| **9** | **Theoretical input** | Nil | R/U Mentioned | Critical reflection on R/U issues |
| | **Comments:** | | | |
| **10** | **Involvement with Community** | "Tourism"-type Exposure | Engagement or Intervention | Ongoing joint reflection |
| | **Comments:** | | | |
| **11** | **Relationship with health service** | Students are a drain / burden | Students are tolerated | Students' input is welcomed &used |

| | Score: | Less than expected | Adequate | Better than expected |
|---|---|---|---|---|
| | **Comments:** | | | |
| **12** | **Assessment of students** | No formal assessment for CBE /Rural learning | Assessment done in relation to learning objectives but not pass/fail | Pass/fail contribution from CBE/Rural component |
| | **Comments:** | | | |
| **13** | **Program Evaluation** | No program evaluation or reflection | Evaluation done previously but not specific to CBE/ R/U | Current educational research re CBE/ R/U |
| | **Comments:** | | | |

### Description of the evaluation criteria

The 4th and 5th criteria were not part of the original CHEER framework. The 5th criterion, however, was included during the UZCHS peer review. See the UZCHS peer review report at http://www.capacityplus.org/files/resources/Peer-review-CBE-University-of-Zimbabwe.pdf

**Criterion 1**

The ideal finding is that the **faculty mission statement** explicitly articulates that the institution strives to prepare students to serve among rural and underserved populations. Reviewers should look out for any reference to "community based" or "community driven" teaching or training for "adequate" scores. In the case of CBE evaluation, the mission statement may be scrutinized and evaluated in terms of "CBE goal not mentioned/indirect reference or explicitly supported." Thus, the mission should be assessed for elements of social accountability generally and those specific to the research question.

**Criterion 2**

**Resource allocation** to the program under evaluation will indicate either constraints or level of commitment in the face of competing priorities. For example, CBE often requires additional transport, accommodation, Internet-based resources, and human resources.

**Criterion 3**

An explicit **student selection policy** and overt student recruitment practices that target students from rural or underserved areas is indicative of a strategy to contribute to the retention of health care workers in rural and underserved areas and is therefore the ideal. The reviewers should assess whether there is tacit exclusion of rural-based students. For example, if the university/college is based in an urban area and student selection interviews are conducted at the university, it may effectively exclude many rural-based students who cannot afford to travel for the interview. Incentives such as availability of government or other bursary schemes that facilitate the studies of students of rural origin are further indicators of student recruitment practices.

**Criterion 4**

Setting explicit **program outcomes** as with learning objectives for courses will ensure that expectations and inputs are aligned. Reviewers should identify whether the institution has a common understanding or explicit outcome expectations for the program under review. Is it written down? Is it communicated to facilitators and students?

**Criterion 5**
**Program oversight and coordination** is crucial to the operation of any program. CBE requires an academic oversight beyond the administrative, in order to ensure that there is alignment of CBE learning outcomes, for example, with those of the entire curriculum. Coordination within the institution, across departments, student groups and preceptors/supervisors as well as the community requires attention and oversight.

**Criterion 6**
Reviewers should establish when the **first exposure** to rural or underserved areas/program under evaluation is, bearing in mind the curriculum approach that includes a "spiral of learning" (Harden 1999). It should further determine whether this exposure affects all relevant students or whether it only affects a proportion (e.g., through electives).

**Criterion 7**
The reviewers should attempt to quantify the clinical/practical time spent by students in community or rural settings outside the large hospitals. Identify the maximum continuous **length of time** of any placement in addition to the short "bursts" of exposure, such as a half day per week over four weeks, which equates to only 2 days **NOT** 4 weeks.

**Criterion 8**
Student placements in rural or community-based sites tend to expose them to hands-on **practical experience.** These activities contribute to service delivery and final year students are often more engaged in practical service learning activities. Reviewers should identify the types of hands-on experience students are engaged in across the years of study. Student support and supervision during this time is critical and identifying how this is catered for forms part of the evaluation. Determining whether there is a balance between what students can contribute at each stage of their course vs. the impact of their presence on the service platform can be a path of enquiry.

**Criterion 9**
Determine what is the nature and scope of **theoretical input** to prepare students adequately for the community-based educational experience. This may include "soft skills" such as cultural awareness/competencies, community entry protocols, or more clinical skills and acumen, which include specific approaches within resource poor or rural practice.

**Criterion 10**
This refers to the students' **involvement with the community** (beyond the health facility). The reviewers should distinguish whether the involvement is a "tourism-type" (look and see) exposure whereby only students are enriched by the experience with no reciprocation, or whether it is true involvement, that is, working on community identified needs and interventions that enhance community involvement and development or direct service delivery.

**Criterion 11**
This refers to the relationship between the students/university/college representatives and **health services** staff as well as policy-makers (Ministry of Health). Are students welcomed

and supported in shared teaching platforms? Are clinical preceptors involved in the curriculum? Are there any incentives for health service personnel (for example, professional training, access to the library, research partnerships)? Is the teaching platform appropriate for the specific learning outcomes related to the various course years?

**Criterion 12**

It is well documented that **"assessment** drives learning**"** (Wormald et al. 2009; Raupauch et al. 2013). There are often no formal assessments specific to rural practice or underserved areas, but the integration of knowledge and its application within population health and equity are important examination criteria. Portfolio examinations of students' experiences are useful to assess whether they are able to integrate their knowledge. Perhaps, relying on reflective journals that do not contribute to the assessment mark may not be sufficient motivation for students to pay attention to their experience and integrate their knowledge and competencies.

**Criterion 13**

This refers to whether there is any systematic **program evaluation** done at the institution apart from scheduled accreditation visits by the health education accreditation councils. Are there any specific research proposals developed that entail program evaluation? Are there any exit-level outcome evaluations being conducted? Do these include rural or underserved outcome indicators? Is there research that involves determining the effect of the student placements on the communities?

# PART FOUR: POST–VISIT FOLLOW UP

## Presenting the Preliminary Report

The preliminary report is drafted by one member of the review team and sent initially to the other reviewers for their comment and corrections before being sent to the host institution. This offers the school an opportunity to validate the report (e.g., give their perspective, correct factual errors, present additional supporting documentation perhaps erroneously omitted during the previous phases).

Once the review team is satisfied that the report is ready for circulation to the institution, it is sent for verification of facts and for any concerns regarding the recommendations to be voiced. There may need for negotiation as to exactly how such recommendations are presented, so that both reviewers and hosts are comfortable.

When it is feasible, the final conclusions and recommendations are best presented in person but an electronic copy of the report should be circulated well in advance of this visit to ensure familiarity with the contents and corrections. Usually, a delegation, rather than the entire review team due to cost constraints, returns for the presentation of the final results. Such a visit is worthwhile to allow for discussion of the findings, advocacy around the recommendations, support for local champions to promote the report, and for encouraging clear decision-making on a way forward for the host institution. The recommendations for publication in the final written report may be negotiated with the reviewers at this stage.During the post visit follow-up  visit more supporting documentation may be presented to reviewers by the institution to support any new information or facts that pertain to the findings.

## The Final Report

Subsequent to the institutional review of the preliminary report as well as the issues arising out the discussion at the final presentation, the report is edited by the main scribe and the edited version circulated first to peer reviewers for further comment and input and then finalized for submission to the institution.

## Publication and Authorship

It is expedient to share the information and outcomes of the evaluation through formal publication. There should be clearly negotiated agreements between the hosts and the reviewers regarding the content of the publication and the authorship. Several journals and academic institutions provide clear guidelines for the responsibility of authors. These guidelines can be used as a basis of negotiating authorship among the parties, usually including the reviewers and the hosting institution champion.

## Steps Towards Implementation: A Guide to the Host Institution

Now that the requested evaluation has been completed and the institution's strengths and weaknesses in certain areas identified, what are the next steps? There will be a list of recommendations and. while these may all be relevant, it may not be feasible to implement all of them, given institutional or structural constraints. Starting with what is achievable in the short term and working toward the more difficult attainments is good for morale and

momentum. Drawing upon the experiences and best practices at other institutions in similar contexts (and the community of MEPI partners) will serve as templates for what can be achieved.

## Adoption and Prioritization of Recommendations

The recommendations that are deemed feasible and reasonable should be identified through a process at the institution that involves all the departmental leaders and relevant stakeholders. The head of the institution will advance the progress of adoption by supporting the initiatives and delegating authority and responsibility to a designated person to set the process of program improvement in motion.

## Planning for Implementation

The adopted recommendations should be prioritized by setting short, medium, and long-term goals for implementation. These decisions and actions should be conducted within the existing structures at the institution. However, if no relevant structures exist to deal specifically with the revisions necessary to improve the evaluated program, one can be established for that purpose. This is to ensure that there are responsible persons assigned so that the process will be completed and the implementation of recommendations deemed feasible will be realized. There are several project planning tools available and one such tool is the use of a GANTT chart (see Appendix 8). This is a useful tool to indicate events/activities against a timeline. Most importantly, those responsible for the activities should be indicated against each activity.

## Implementation

The changes required will call for resources (staff time or funding) or additional collaborations. Whatever the resource, it requires commitment by the decision-makers and stakeholders. The buy-in solicited from faculty and stakeholders prior to the implementation of the evaluation becomes a valuable resource at this stage. Often with CBE programs, curriculum or alignment with didactic teaching is targeted for revision and this requires the input of the faculty and clinical preceptors responsible for course development and/or teaching to make the changes. This requires focused activity, which is supported through collaboration within and across core clinical departments. Monitoring progress of the implementation and the impact of these changes over time is a crucial component of implementation for change.

## CONCLUSION

The purpose of the peer review is to provide feasible recommendations to help a school to achieve the intended results of an educational program. Before investing time and resources in the review, the school's leadership should recognize that changes may be needed and be committed to implementing the recommendations. The peer reviewers should be committed to engaging the school leadership throughout the process, working with them to identify challenges and possible solutions, and following up after the review to provide support for the implementation of the solutions. The experience gained by members of the institution involved in the process of the review can be harnessed for ongoing monitoring and evaluation and is an investment in itself.

Where there is an alignment of the process with institutional aims, buy-in from faculty leadership and staff, and a commitment to implementing the recommendations, the peer review offers an invaluable tool for evaluating and reshaping community-based education or other components of health sciences programs, as well as providing impetus for change.

**Additional Resources:**
For examples of invitation letters, consent forms, etc. see the CHEER website:
http://www.cheer.org.za/research.html

# REFERENCES


Bin Abdulrahman, K., Mennin, S., Harden, R., & Kennedy, C. (Eds). 2015. Case Study 1.5 Lessons from eight medical schools in South Africa - the CHEER collaboration. In Routledge International Handbook of Medical Education (First ed., p. 418). Routledge and Routledge.

Couper, I.D., Hugo, J.F.M., Conradie, H., Mfenyana, K. 2007. Influences on the choice of health professionals to practise in rural areas. *South African Medical Journal* 97, 1082-1086.

Eagar, D., Versteeg-Mojanaga, M. ,Cooke, R. 2014. Discussion Document: Defining rurality within the context of health policy, planning, resourcing and service delivery: Complexities, typologies and recommendations. Rural Health Advocacy Project. Available: http://rhap.org.za/wp-content/uploads/2014/08/RHAP_Defining_Rural_Version_1-060614-30th-June-2014.pdf [Accessed 9 September 2015].

Harden R. 1999. What is a spiral curriculum? *Medical Teacher* 21(2):141–43.

Knight, C., Sakowski, H., Houghton, B., Laya, M., & DeWitt, D. 2004. Developing a peer review process for web-based curricula: Minting a new coin of the realm. *Journal of General Internal Medicine* 19, 594-598.

Michaels, D.C., Reid, S.J., Naidu, C.S. 2014. Peer review for social accountability of health sciences education: A model from South Africa. *Education for Health* 27, 127-31.

Raupach, T., Brown, J., Anders, S., Hasenfuss, G., & Harendza, S. 2013. Summative assessments are more powerful drivers of student learning than resource intensive teaching formats. *BioMed Central Medicine* 11, 61-61.

Reid, S. 2004. A cheerful group – The Collaboration for Health Equity through Education and Research. *South African Family Practice Journal* 46(7), 3-3.

Reid, S., Cakwe, M., 2011. On behalf of the Collaboration for Health Equity through Education and Research (CHEER). The contribution of South African Curricula to prepare health professionals for working in rural or under- served areas in South Africa: A peer review evaluation. *South African Medical Journal101*, 34-38.

Reid, SJ, Mpofu, R., Chandia, J. , Conradie, H. , Mabuza, H. 2010. Report of a Peer Review: Christian Medical College Vellore MBBS Curriculum. Unpublished.

Richards, R., Fülöp, T., Bamerman, J., Greenholm, G., Guilbert, J., Wunderlich, M. 1987. Innovative Schools for Health Personnel: Report on Ten Schools Belonging to the Network of Community Oriented Educational Institutions for Health Sciences. World Health Organization. Retrieved August 10, 2015, from http://www.who.int/iris/handle/10665/38996

Wormald, B., Schoeman, S., Somasunderam, A., Penn, M. 2009. Assessment drives learning: An unavoidable truth? *Anatomical Sciences Education* 2(5), 199-204.

# APPENDIX 1: EXAMPLE OF A CHEER PROTOCOL

## Background and Rationale

This will include a statement on the focus of the review, a description of contextual factors and the stated need for the evaluation which may include addressing local inequities within the health system through health professional training.[1,2]

### Aim and objectives of the review

This is based on the agreed upon aim and specific objectives set by the host faculty based on institutional needs. This may include evaluation of educational programs and activities as well as the perceptions and experiences of participants and recipients of service.

### Methodology

A descriptive study design using the mixed-method approach to conducting evaluations is favored. Note that the protocol must allow for some adjustments and modifications during the visit, to respond to issues that may arise.

## Data Collection and Sampling

### Quantitative

A letter detailing the project, a questionnaire and a curriculum framework spreadsheet is sent to the participants before the visit. These questionnaires should be adapted to the target audience, context and purpose of the evaluation. The information obtained from the pre-visit surveys is meant to inform the semi-structured interviews which will be conducted during the visit (see Appendix 3-7).

### Qualitative

Semi-structured interviews ("a conversation with a purpose") are favored due to the time constraints within which reviews are conducted. An interview schedule is drafted and agreed upon based on the results of the pre-visit survey as described above. Each interview is approximately one hour duration and is aimed at soliciting information for elucidation, understanding context and exploring key issues in greater depth.

Focus group discussions with students and graduates are preferable. However, when large groups (>15) of students present, it may be difficult to conduct the focus groups and you may have to revert to "a paper response method"[3] to encourage response from each participant.

---

[1] World Health Organization. The World Health Report 2003 - Shaping the future. (Online) 2003. Geneva: World Health Organization. Available: http://www.who.int/whr/ previous/en/index.html (Accessed 25 May 2015).

[2] World Health Organization, 2010. Increasing access to health workers in remote and rural areas through improved retention: Global Policy Recommendations. Geneva: World Health Organization. Available at: http://www.who.int/hrh/retention/guidelines/en/ Accessed 25 May 2015.

[3] This can be done in a number of different ways. In the UZCHS review, the students were handed a slip of paper on which they wrote the answer to one question at a time. After each response the paper was handed in and placed in a separate envelope. A brief discussion was held after each

Note that the pre-visit survey instruments together with the proposed interview schedules should be attached to the protocol submitted for Ethics approval.

### Review of supporting documentation

It is expedient to arrange that supporting documentation is made available by the institution preferably before the visit or at the start; in some cases information has to be obtained from various key informants during the interviews. The relevant information will be documents on the vision and mission of the Health Sciences institution, 'historical' documentation about the program being evaluated, outlines of relevant curricula across the study years, program timetables and objectives, relevant policy documents as well as any other documentation deemed pertinent by informants and reviewers.

**Examples of relevant Supporting documentation (to be obtained before visit):**

- Vision and Mission statements
- Student selection Policy
- Faculty organograms
- Course curriculum outlines
- Memoranda of Agreements with health services
- Brief history of program under review
- Student numbers across course years
- Geographic scope of teaching platform
- Resolutions/Minutes of meetings with Community advisory committees – if available

### Sampling

Purposive sampling is preferred for key informants amongst the faculty, preceptors and community due to the relatively small defined population relating to a faculty or community based involvement. Leaders in different areas or domains are identified.

With regard to sampling amongst the student population, the 'numbers needed' may be calculated using conventional sample size calculations and the snowball technique may be expedient with regard to graduates due to the general lack of institutional health sciences graduate tracking systems.

### Data Analysis

There are free quantitative analysis software packages available such as Centre for Disease Control's EPI Info™ available at http://wwwn.cdc.gov/epiinfo/7/ for those institutions which do not have access to licensed data analysis software. Descriptive statistics are adequate for the purpose of the review. All qualitative data can be analyzed using a recursive abstraction method. At the end of each day, each team of reviewers summarize their findings separately. The teams then come together and summarize the respective summaries. These summaries and the raw notes of individual scribes together with the review of supporting documentation are analyzed by one person (or more) using thematic content analysis. The latter can be done after the visit for the detailed report while the former processes are conducted during the visit in order to present the preliminary findings to the host institution at the end of the visit.

---

question was answered to share the perspectives of a few students. The written responses are subsequently analyzed by the reviewers.

### Ethical Considerations

The protocol should be approved by a Research Ethics Committee or similar statutory body, or receive a waiver from such a body. This is a requirement in most Faculties, and is certainly needed if there is any intention to publish the findings in a peer reviewed journal.

### Confidentiality

There should be consideration about what will happen to the data such as the consent forms, completed questionnaires, reviewers' notes and supporting documentation during and after the evaluation. It is impossible to ensure complete anonymity regarding participation, especially within a defined department; however, all efforts should be made to avoid assigning a person's name or any 'identifying information' to a particular statement or comment when reporting the data whether during oral feedback or written reports. Participants should also be aware of who will have access to the information, especially identifying information. Maintaining privacy and confidentiality will protect participants from 'harm' either psychologically (embarrassment or distress) or social harms (harassment stigmatization or loss of employment).

### Consent

All participants should be informed of the purpose of the review and how data will be used. They should be free to participate or withdraw at any time without fear of retribution. It is preferable to obtain signed consent rather than verbal (see Appendix 2).

# APPENDIX 2: EXAMPLE OF CONSENT FORM

**PARTICIPANT INFORMATION SHEET AND INFORMED CONSENT FORM**

**Title of Research Project: Evaluating the Contribution of current University of Zimbabwe Health Science Curriculum to the Preparation of Doctors for Working in Rural or Under-Served Areas in Zimbabwe: CHEER Peer Review. Protocol version 1.0 14/01/2014**

***Short Title: CHEER Peer Review: University of Zimbabwe College of Health Sciences***

**Principal Investigator:** [redacted]

We are doing research and would like to invite you to participate in our study. This letter will help you understand what we are doing and what is involved should you agree to participate. Please read this carefully. You can ask any questions about anything that is not clear to you before you decide whether you want to participate or not.

**What is this research about?**

This project is a review of how field attachment for medical students in the MBChB programme at the UZCHS prepares them to work in rural and underserved areas in Zimbabwe. Several factors have been shown to influence the career choice of doctors to work in rual and under-served areas. These include the selection criteria used for entry into medical school, the timing, duration and type of exposure to rural and community-based educational opportunities during the under-graduate phase, as well as the availability of post-graduate programmes that are supportive of rural practitioners. However, the extent of this influence has not been demonstrated in Zimbabwe, and the applicability of international studies on these issues has been questioned.

This peer review mainly aims at reflection and discussion towards solutions rather than assessment and judgment.

Please note that the information you provide in this questionnaire will be kept strictly confidential, your name will not be connected to any results in the analysis. The information derived from this research may be used in reports and publications of the Research Team.

**Who is CHEER?**
CHEER is the Collaboration for Health Equity through Education and Research. This is a group of educators from 9 health science faculties in South Africa who work for the advancement of equity in health care through education. UZCHS has adapted the CHEER peer review model to assess its field attachment programme.

**Interviews**
We will interview you for up to an hour. We will ask you questions about your experience and views of the UZCHS field attachment program.

**Will you be at risk or feel discomfort by taking part in this study?**
This research will not put you at any risk or make you feel any discomfort. You do not have to answer questions that make you feel uncomfortable, while you take part in the study.

**What are the benefits of this study?**
There will be no direct benefit to you from this study. However, by participating in this research, you will help improve the education and practice of health workers in the future.

**What are your rights as a participant in this study?**
Your participation in this study is entirely voluntary. Without giving any reason, you can choose not to participate in the research or can stop participating in it at any time during the study. This decision will not affect your relationship with the faculty and colleagues in any way or, if you are a student this will not affect your marks or assessment.

**Will you be compensated in participating in this study?**
Your participation in this study is voluntary. There will be no costs to you for your participation and no compensation will be given to you for your participation.

**What about Confidentiality?**
All the information you provide will be kept strictly confidential. This means that the information you give us will not be linked to your name and no one will be able to identify you. All questionnaires and other documents you provide will be kept under lock and key and will only be accessible to the Principal investigator and the coordinator of the project. Publications that come out of this research will not use any information that can identify you or your department, clinic, hospital or institution.

**What about ethical approval?**
Before beginning any research all studies conducted at the UZCHS have to be approved by Research Ethics Committees. This study has been approved by the Joint Ethics Research Committee of [redacted]

**Information and Contact Person**
If you have any questions about this study at any point in time, please contact the study Principal Investigator [redacted]; the study coordinator [redacted] may also contact the JREC [redacted].

**INFORMED CONSENT FORM**

**Consent to participate in this study: Individual interviews**

I confirm that

a. The person asking me to take part in this study has told me about the nature, process, risks, discomforts and benefits of the study;
b. I have received, read and understood the information leaflet about this study as well as this consent form;
c. I have had time to ask questions;
d. I am participating willingly in this study;
e. I know I can withdraw from this study at any time;
f. If I decide to withdraw, I know my decision will not affect in any way my relationship with the faculty and colleagues, or, if I am a student, my marks;
g. My participation in this research is voluntary;
h. The information I provide will be kept strictly confidential and my name will not be connected to any results in the analysis.

…… ……..

Participant's Name (PLEASE PRINT) Signature and Date

…….. …….

Study Staff conducting Consent (Name) Signature and Date

# APPENDIX 3: EXAMPLE OF PRE-VISIT STUDENT QUESTIONNAIRE

**PEER REVIEW QUESTIONNAIRE FOR UNIVERSITY OF ZIMBABWE COLLEGE OF HEALTH SCIENCES MEDICAL STUDENTS**

The role of training is a significant factor which influences health professionals' career choices. However, the extent of this influence has not been demonstrated in this region. This survey aims to identify and evaluate how well the UZCHS is doing to prepare graduates for future careers in rural or under-served areas. The study has obtained ethics approval ref: MRCZ/A/1841 dated 9 June 2014. Your participation is highly valued.

***Instructions for completing this survey:***

*Kindly mark the applicable options with an **X** where free text is not required.*

**Demographic details**

**Gender**: Male ____ Female _____

**Year of Study**: (circle applicable year) 1st 2nd 3rd 4th 5th

**D.O.B**:__/__/_____(dd/mm/yyyy)

**Area of origin**: rural _____ urban ____ underserved_____ [see definitions below]

**Date questionnaire Completed**:___/_____/2014 (dd//mm/yyyy)

**Definitions:**

***Urban:*** *built-up, town, city, inner-city, densely populated, metropolitan, suburban*

***Rural area****: where the health service is in the district far away from referral centres and where most health care is provided by generalist practitioners with limited or distant access to specialist resources and high technology support.*

***Under-served area*** *is characterized by*

*i) a lack of basic health requirements, eg. clean water, adequate food and shelter, etc;*

*ii) limited access to health services*

*iii) high ratios of patients to facilities (hospital beds) and health personnel.*

*These can occur in rural, peri-urban or urban areas.*

## 1. GRADUATE OUTCOMES

1.1. Which MBCHB Programme Goals (general curricular statements of intent)are you aware of which aim to prepare students for a future career in *rural or under-served areas*?

_____

_____

_____

Don't Know ____

## 2. RECRUITMENT AND SELECTION OF STUDENTS

2.1. If your place of origin is a 'rural or 'underserved area', how were you informed about the medical programme at the University of Zimbabwe?

Bronchures ☐

Career development expos ☐

Media (newspaper) □

Peers/friends □

Not applicable:_____[skip to no. 2.4]

2.2 Did the University offer any financial assistance to study? Yes____ No____

2.3. If yes, what are the conditions attached to the financial assistance?

_____

_____

_____

2.4 Are you aware of any student **selection policy** which makes any explicit reference to recruiting students from rural or underserved areas?

YES ____ NO _____

## 3. CURRICULUM

3.1. Which courses or curricula activities do you think prepare you to work in rural and underserved areas?

Field attachments □

Outreach programmes □

Community medicine □

Other (specify)

_____

_____

_____

Don't know ____

3.2. Are there other members, not employed by the university, who are involved in **teaching/facilitating learning** whom you feel prepare you for working in rural and underserved areas?

YES _____ NO _____

If yes, please indicate with a tick below:

___Health Professionals

___Health Administrators

___Community Health Workers

___Community Development Personnel

___Students (either contemporary or previous years)

___Faculty

**___Other (please specify)**_____

## 4. EVALUATION

4.1 Are you in touch with any graduates from your medical school?

YES ___ NO ___

4.2. If yes, how many? _____

*4.2a If YES, please specify where they are currently working [if you know of multiple graduates note the numbers next to the appropriate option eg. 1 in public health sector in Zimbabwe (urban)]*

*___in rural or underserved areas in Zimbabwe*
*___in public health sector in Zimbabwe (urban)*
*___in private practice in Zimbabwe*
*___emigrated to another country*
*___other (specify)_____*

4.3 When you graduate you plan to… (complete this statement by indicating one of the options below)

__do postgraduate studies to become a specialist
__go into private practice in Zimbabwe
__go into the public health sector in Zimbabwe
__practice in rural or underserved areas in Zimbabwe
__emigrate to practice in another country
__other (specify)_____

5.1 Do you have any suggestions about how you can best be prepared for working in rural and underserved areas in Zimbabwe?

_____
_____
_____
_____
_____

**Thank you for your valuable participation in the UZCHS CHEER project.**

# APPENDIX 4: EXAMPLE OF FACULTY PRE-VISIT SURVEY

**PEER REVIEW FACULTY PRE-VISIT SURVEY**

Date Completed:_____

## 1. GRADUATE OUTCOMES

1.1 Name of Programme: ____MBChB____

1.2 Which, if any, of your Programme Goals (general curricular statements of intent) aim to prepare students for a future career in *rural or under-served areas*?

***Rural area**: where the health service is in the district far away from referral centres and where most health care is provided by generalist practitioners with limited or distant access to specialist resources and high technology support.*

***Under-served area** is characterized by*

*i) a lack of basic health requirements, eg. clean water, adequate food and shelter, etc;*
*ii) limited access to health services*
*iii) high ratios of patients to facilities (hospital beds) and health personnel.*

*These can occur in rural, peri-urban or urban areas.*

a) Programme goals or outcomes that **explicitly** refer to preparing students for rural or under-served areas:

_____
_____
_____
_____
_____
_____

b) Programme goals or outcomes that **indirectly** relate to preparing students for rural or underserved areas (e.g. PHC approach, equity, human rights, community-oriented care or community responsiveness, health and poverty, etc):

_____
_____
_____
_____
_____
_____

## 2 RECRUITMENT AND SELECTION OF STUDENTS

2.1 Does your student **selection policy** make any explicit reference to rural or underserved areas?

YES ____ NO _____ IN PART _____ NOT SURE_____

2.2 Does your student **recruitment process** include strategies (e.g. marketing, scholarships) to identify students with a preference for a future career in rural or under-served areas ?

YES ____ NO _____ IN PART _____ NOT SURE_____

## 3 CURRICULUM

Please enclose a copy of a written description of those aspects of the curriculum you consider relevant to preparing students for a future career in rural or under-served areas. This may be in the form of a catalogue for students, a more lengthy description of relevant courses or any papers, published or unpublished, that discuss or evaluate these aspects of your curriculum.

**Content/Themes, Educational Methods, Learning sites, etc**

PLEASE COMPLETE THE CURRICULUM FRAMEWORK PROVIDED ELECTRONICALLY
(see appendix)

## 4 CURRICULUM PLANNING AND TEACHING

4.1 Have Faculty staff been employed with **specific responsibility** for developing aspects of the curriculum that are relevant to preparing students for a future career in rural or under-served areas?

YES ____ NO _____ NOT SURE_____

If 'yes', please specify:

**Academic Levels** (eg. tutor, lecturer, professor), **Job Title** (e.g. Community-based education, Rural Health, PHC)

_____
_____
_____
_____
_____
_____

4.2 Which departments at your university, other than your own, are most involved with curriculum planning for rural or under-served areas at the various levels of health care?

_____
_____
_____

4.3 Are there other members, not employed by the university, who are involved in **curriculum planning**?

YES ____ NO _____NOT SURE _____

If yes, please indicate with a tick below:

___Health Professionals
___Health Administrators
___Community Health Workers
___Community Development Personnel
___Students (either contemporary or previous years)
___Other (please specify)

_____

4.4 Are there other members, not employed by the university, who are involved in **teaching/facilitating learning?**

YES _____NO _____NOT SURE _____

If yes, please indicate with a tick below:

___Health Professionals
___Health Administrators
___Community Health Workers
___Community Development Personnel
___Students (either contemporary or previous years)
___Faculty
___Other (please specify)

4.5 Is sustainability of the Programme being addressed?

___Not at all ___ Partially addressed___ Systematically

## 5 EVALUATION

5.1 Are you evaluating whether the graduate outcomes are being achieved?

YES ___ NO ___

*If YES, please enclose any written material you may have.*

**Thank you for your valuable participation in the UZCHS CHEER project.**

**CHEER CURRICULUM FRAMEWORK**

NB: This table is meant to provide a framework only, in order to assist further data collection at interviews.

| **Year** | **Name of module /sub-programme** | **Content relevant to rural/ underserved areas** | **Educational methods** | **Site of learning** | **Duration of activity** | **Expected competen-cies** | **Depth of community-based learning** (see below for definitions) | **Assessment** | **Pass / Fail?** |
|---|---|---|---|---|---|---|---|---|---|
| *Year level* | *A planned unit of learning activity* | *Major health problems*<br>*Poverty and health*<br>*Equity & human rights*<br>*Primary Health Care*<br>*Other* | *Lectures*<br>*Tutorials*<br>*Experiential learning/ Pracs*<br>*Project-based learning*<br>*Other* | *University (classroom /lecture theatre/lab)*<br>*Tertiary or Regional Hospital*<br>*District Hospital*<br>*CHC's and Clinics*<br>*Community (outside of health facilities)* | *Hours*<br>*Days*<br><br>*Weeks* | *What students are expected to learn from undertaking the CBE activity* | • *Exposure*<br>• *Engagement*<br>• *Active Participation*<br>• *Collabo-rative Participation*<br>• *Reflection*<br>• *Evaluation* | *Is the learning activity assessed or not? (Y/N)** | *Can students fail the module? (Y/N)* |
| **Example** | **Community Diagnosis & Inter-vention** | ***Topic of Project to be decided in collabo-ration with community reps.*** | ***Project-based learning*** | ***Site to be determined in collaboration with community reps. The course requires that it must be at a CHC or Community (outside of*** | ***1 day per week X 6 months*** | ***Commu-nity diagnosis*** | ***Collaborative Participation plus Evaluation*** | ***yes*** | ***yes*** |

| Year | Name of module /sub-programme | Content relevant to rural/ underserved areas | Educational methods | Site of learning | Duration of activity | Expected competen-cies | Depth of community-based learning (see below for definitions) | Assessment | Pass / Fail? |
|---|---|---|---|---|---|---|---|---|---|
| | | | | ***health facilities) e.g. School*** | | | | | |
| **1st year** | | | | | | | | | |
| **2nd year** | | | | | | | | | |
| **3rd year** | | | | | | | | | |
| **4th year** | | | | | | | | | |
| **5th year** | | | | | | | | | |

**Definitions:**
Exposure: observation only
Engagement: working in the situation
Active Participation: undertaking an intervention
Collaborative Participation: undertaking a joint intervention in collaboration with the community
Reflection: Reviewing own experience and professional development arising from the work situation
Evaluation: On-going joint (with community) reflection; appraisal of work undertaken

***If yes, please come prepared to the interview to discuss methods of evaluation and bring documentation/exa**

# APPENDIX 5: EXAMPLE ONE OF INTERVIEW GUIDE: DEAN

**INTERVIEW GUIDE: DEANS AND CHAIRS OF UNDERGRADUATE COMMITTEES**

**Definitions of Rural and Under-served:**

**Rural area:** where the health service is 80km or one hour travel by road from the nearest referral centre and where most health care is provided by generalist practitioners with limited or distant access to specialist resources and high technology support, and in the SA context, to include the characteristics of under-served areas given below.

An **under-served area** is generally characterized by

i) a lack of basic health requirements, e.g. clean water, adequate nutrition, shelter, etc;
ii) limited access to health services
iii) high ratios of patients to facilities (hospital beds) and health personnel.

These can occur in rural, peri-urban or urban areas.

**Kindly note Context of these interviews:** These interviews will be conducted after questionnaire data has been captured and interviews conducted with relevant staff.

---

1. What degree of priority does your Faculty give to preparing students for a future career in rural or underserved areas?

Limited_____ Moderate _____ Significant ____

1.1 If replied, 'limited' or 'moderate', ask for reasons.

1.2 If replied 'moderate' or 'significant', ask:

1.2.1 What are the factors that enable your Faculty to contribute to preparing students for a future career in rural or underserved areas?

1.2.2 What are the factors that inhibit your Faculty contributing to preparing students for a future career in rural or underserved areas?

2. What would it take, in your view, to enable your Faculty to contribute to preparing students for a future career in rural or underserved areas?

3. Follow-up on any questions or issues raised from the questionnaires or interviews that are relevant to top management: recruitment of students and staff; sustainability; participants in curriculum planning, for instance.

4. If the Programme Goals and other questions point to an explicit intention to prepare students for a future career in rural or underserved areas, but the curriculum implementation indicates that little has been achieved, then ask:

> What, from your perspective, are the main reasons for not achieving Program's intention to prepare students for a future career in rural or underserved areas?

5. If it seems that little or no Programme preparation in view for career work in rural and underserved arenas ask:

> What is your understanding of the government directed imperative to develop and improve health equity. Ought this to be a curriculum concern?

# APPENDIX 5B: EXAMPLE TWO OF INTERVIEW GUIDE: DEAN

AIM: Assist the research team in making a considered judgement with regard to each issue that contributes to the preparation of students for rural or underserved areas

OBJECTIVES:

- to confirm written responses from the questionnaire
- to explore selected issues in greater depth
- to obtain new information

## MISSION AND VISION

What degree of priority does your Faculty give to preparing students for a future career in rural or underserved areas?
Limited_____ Moderate _____ Significant ____

If 'limited' or 'moderate', ask for reasons.

If 'moderate' or 'significant', ask:

- What are the factors that enable your Faculty to contribute to preparing students for a future career in rural or underserved areas?
- What are the factors that inhibit your Faculty contributing to preparing students for a future career in rural or underserved areas?
- What would it take, in your view, to enable your Faculty to contribute to preparing students for a future career in rural or underserved areas?

## RECRUITMENT AND SELECTION OF STUDENTS[4]

**Selection policy**: Does your student selection policy make any explicit reference to rural or underserved areas?
If YES or IN PART, ask him/her to elaborate

**Recruitment process:** Does your student recruitment process include strategies (e.g. marketing, scholarships) to identify students with a preference for a future career in rural or under-served areas?
If YES, ask him/her to briefly describe the strategies

[4] These questions can be asked if there was no pre-visit questionnaire completed, or reference can be made to responses on such a questionnaire if it was completed

If IN PART, ask him/her to elaborate

## CURRICULUM

Read in relation to data from the curriculum framework spreadsheet.

**Note:** If respondents did not relate content to educational methods and duration of activity and assessment, ask them to make the connections in the interview.

Can you identify longitudinal themes in the curriculum that are relevant to preparing students for rural or underserved areas? Please state what these are and describe how they are structured (e.. year of study, duration of activity, educational methods, assessment)

## TIME/DURATION

When are students first exposed to **rural areas** in the course of their study?

When are students first exposed to **underserved areas** in the course of their study?

What, if any, proportion of learning time in the programme(s) under review is spent in rural areas?

What, if any, proportion of learning time in the programme(s) under review is spent in underserved areas?

Do students develop relationships with stakeholders over a period of time at a particular site?

If yes, who are the stakeholders? (e.g. member of the health team in a district hospital or community residents)

How is the relationship developed? What is the entry point? (e.g. primarily through clinical service versus a population-based approach)

Briefly describe the relationship (focusing on a spectrum from a 'charity' perspective to a transformative: `doing for', 'helping them' in contrast to `working with', 'enabling'). Are students at community-based sites seen as a burden by the health service people, or are they incorporated productively as part of the team?

What kind of relationship do students have with the health services, in each year of the programme??

Year:_____

drain/burden ___ students tolerated___ students welcomed/well used ___

### Assessment

How seriously is the assessment of community-based learning activities taken by students and Faculty? E.g. can the student fail on the basis of poor performance in the module such that they have to repeat it? Could it result in the student repeating a year?

What percentage of the program/module marks are allocated to the assessment tasks at the respective sites?

How are equity issues addressed in all modules and all departments?

## CURRICULUM PLANNING AND TEACHING

### Curriculum planning participants

Who has the most influence on curriculum planning and decision-making?

Which departments at your university are most involved with curriculum planning for rural or under-served areas at the various levels of health care?

Have staff been employed with specific responsibility for developing aspects of the curriculum that are relevant to preparing students for a future career in rural or under-served areas?

### Participants in teaching

Which departments, and who in those departments, are most involved in delivering the curriculum that prepares students for rural or under-served areas at the various levels of health care?

Please briefly describe what they teach and how many hours or days are allocated.

### Sustainability of resource base

Is sustainability of the Programme being addressed?

If PARTIALLY or SYSTEMATICALLY, ask the respondent to elaborate in terms of:

- What the resource issues are
- Who is addressing them
- How they are being addressed

# APPENDIX 6: INTERVIEW GUIDE: FACULTY/CLINICAL PRECEPTORS

**University of Zimbabwe College of Health Sciences**
**Peer Review**
**2-6 February 2015**

## FACULTY INTERVIEW GUIDE

AIM: Assist the research team in making a considered judgement with regard to each issue that contributes to the preparation of students for rural or underserved areas

OBJECTIVES:

- to explore selected issues in greater depth
- to obtain new information

1. What is the involvement of your department in the CBE?

2. What is the aim of your programme in relation to CBE? (What are you hoping to achieve through your contribution?)

3. Where do students do field work and what do they do there?

4. What is the involvement of academic staff in the training of students in the field?

5. What are the gaps between theory and practice when preparing students to work in rural and underserved areas?

6. What do you think you could be doing better to address these gaps?

7. How are local health services involved in the student training,
   - what role do the local health care workers play in relation to the students?
   - how are they supported or trained to do that?
   - how is the presence of students perceived by the health services?

8. How are students assessed in respect of the CBE and what weight is given to the assessment.

# APPENDIX 7: INTERVIEW GUIDE: STUDENTS/ALUMNI

**University of Zimbabwe College of Health Sciences**
**Peer Review**
**2-6 February 2015**

### STUDENT INTERVIEW GUIDE

1. Please describe your experiences of community based learning.

2. Are you considering practicing in a rural or under served area in the future?

3. Do you think the courses you have completed thus far have contributed to preparing you for working in a rural or underserved area?

4. Are there any changes you would recommend?

# APPENDIX 8: PROJECT TIMELINE

Note: symbol □ = 1 week ; HI= Host Institution ; PR = Peer Reviewers (**Note:** Specific Names should be inserted in these columns when doing your planning!)

| **Activity** | **Responsible person/s** | **Weeks 1-4** | **Weeks 5-8** | **Weeks 9-12** | **Weeks 13-16** | **Weeks 17-21** | **Weeks 22-25** | **Weeks 26-29** | **Weeks 30-33** |
|---|---|---|---|---|---|---|---|---|---|
| | | 8 Months before visit | 7 Months before visit | 6 Months before visit | 5 Months before visit | 4 Months before visit | 3 Months before visit | 2 Months Before visit | 1 Month before visit |
| Obtain institutional approval for review | **HI** | | | | | | | | |
| Identify peer review team extend invitations | **HI** | □□□□ | | | | | | | |
| Adapt and finalize Protocol | **HI & PR** | □□ | □□ | | | | | | |
| Ethics submission and approval process | **HI** | | □□ | □□□□□ | | | | | |
| Distribution of pre-visit surveys – faculty and students | **HI** | | | | □□ | □□□□ | □□□□ | | |
| Survey Data capture analysis, report | **HI** | | | | | □□□□ | | | |
| Analysis and reporting | **PR** | | | | | | □□□□ | □□□□ | |
| Planning of visit schedule | **HI & PR** | | | | | | □□□□ | | |
| Travel/accommodation arrangements for reviewers | **HI** | | | | | | □□ | | |
| Collection of supporting documentation | **HI** | | | | | | □□□□ | □□□□ | |
| Review supporting documentation | **PR** | | | | | | | □□□□ | □□□□ |
| Refine interview schedules | **PR** | | | | | | | | □□□□ |
| Finalize visit schedule/ program | **HI & PR** | | | | | | | | □□□□ |

| **Activity** | **Responsible person/s** | **Weeks 1-4** | **Weeks 5-8** | **Weeks 9-12** | **Weeks 13-16** | **Weeks 17-21** | **Weeks 22-25** | **Weeks 26-29** | **Weeks 30-33** |
|---|---|---|---|---|---|---|---|---|---|
| | | 8 Months before visit | 7 Months before visit | 6 Months before visit | 5 Months before visit | 4 Months before visit | 3 Months before visit | 2 Months Before visit | 1 Month before visit |
| invitations to stakeholders preliminary feedback meeting | **HI** | | | | | | | | □ |
| Develop reviewer briefing content | **PR** | | | | | | | | □□□□ |
| Compile reviewer files | **PR** | | | | | | | | □ |
| Peer Review Visits* (refreshments for PRs, schedule updates, venues, meeting invitations) | **HI** | □ | | | | | | | |
| Draft evaluation report | **PR** | □□□ | □□□□ | | | | | | |
| Circulate First Draft for comment to reviewers | **PR** | | | □□□□ | | | | | |
| Edit Draft report | **PR** | | | | □□ | | | | |
| Circulate pre-final report for comment by reviewers | **PR** | | | | □□ | | | | |
| Edit pre-final | **PR** | | | | □□ | | | | |
| Submit to institution for correction of factual inaccuracies | **HI to review** | | | | | □□□□ | | | |
| Negotiate post review feedback visit (optional) | **PR &HI** | | | | | □ | | | |
| Travel and logistics for post review visit | **HI** | | | | | □□ | | | |
| Amend pre-final report | **PR** | | | | | | □□ | | |

| **Activity** | **Responsible person/s** | **Weeks 1-4** | **Weeks 5-8** | **Weeks 9-12** | **Weeks 13-16** | **Weeks 17-21** | **Weeks 22-25** | **Weeks 26-29** | **Weeks 30-33** |
|---|---|---|---|---|---|---|---|---|---|
| | | 8 Months before visit | 7 Months before visit | 6 Months before visit | 5 Months before visit | 4 Months before visit | 3 Months before visit | 2 Months Before visit | 1 Month before visit |
| Develop presentation of key findings (for visit – optional) | **PR** | | | | | | □ | | |
| Post review feedback visit preparations and logistics | **HI** | | | | | | **2 days** | | |
| Negotiate post evaluation support | **HI & PR** | | | | | | | | |
| Write up post review visit recommendation adoption and process | **PR** | | | | | | □ □ □ | | |
| Circulate final report for reviewers comments | **HI to Comment** | | | | | | □ | □ | |
| Edit for final print ready copy | **PR** | | | | | | | □□ □ | |
| **Submit Final report to institution** | **PR** | | | | | | | | * |



Capacity*Plus* is the USAID-funded global project uniquely focused on the health workforce needed to achieve the Millennium Development Goals. Placing health workers at the center of every effort, Capacity*Plus* helps countries achieve significant progress in addressing the health worker crisis while also having global impact through alliances with multilateral organizations.

## The Capacity*Plus* Partnership






**Capacity*Plus***
**IntraHealth International**

1776 I Street, NW, Suite 650
Washington, DC 20006
T (202) 407-9473
F (202) 223-2295

6340 Quadrangle Drive, Suite 200
Chapel Hill, NC 27517
T (919) 313-9100
F (919) 313-9108

www.capacityplus.org
info@capacityplus.org