# Monitoring and Evaluation Framework

# For the Local Education Groups (LEGs) Initiative

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(Revised)

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The Centre for Rural and Northern Health Research (CRaNHR) is an independent academic and applied research centre with sites at Laurentian University in Sudbury and Lakehead University in Thunder Bay, Ontario.

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# Monitoring and Evaluation Framework for the Local Education Groups (LEGs) Initiative

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# MONITORING AND EVALUATION FRAMEWORK FOR THE

# LOCAL EDUCATION GROUPS (LEGS) INITIATIVE

(The LEGs Evaluation Project)

28 November 2014

## I. INTRODUCTION

### A. Background

Alternative Funding Plans (AFPs) in Ontario are funded by the Ministry of Health and Long-term Care (MOHLTC) to support the clinical teaching activities of physicians, thus ensuring sufficient clinical learning opportunities to the next generation of physicians. Although AFPs have existed at other Ontario medical schools since the 1990s, Ontario's newest medical school, the Northern Ontario School of Medicine (NOSM), has a unique mandate and mission to train physicians for rural and northern communities.

NOSM's distributed medical education (DME) model - with two campuses more than 1000km apart in Sudbury and Thunder Bay, and clinical learning taking place in over 70 communities across northern Ontario - indicated the need for a different approach to supporting clinical faculty.[1–3] Instead of a single centralized governing body to administer the funds, the NOSM AFP is implemented through Local Education Groups (LEGs). LEGs are self-organized groups of NOSM clinical faculty who are responsible for providing selected medical education services at the undergraduate and/or postgraduate level. LEGs also support other academic activities such as professional development, research and clinical innovation. [4,5] An independent organization, the Northern Ontario Academic Medicine Association (NOAMA), administers the LEGs Initiative, through a negotiated agreement between the MOHLTC, the Ontario Medical Association (OMA), the Northern Ontario School of Medicine (NOSM), and the Physician Clinical Teachers Association (PCTA).

Because of the novel approach to administering the AFP, there is an expectation that the LEGs Initiative will be evaluated. The purpose of the LEGs Evaluation Project is to develop an evaluation framework that can be used by NOAMA and partners to prepare for evaluation.

## B. Development of the Evaluation Framework

A combination of research and consultations, and feedback were used in the development of the framework. The research protocol and instruments were reviewed and approved by the Laurentian University Research Ethics Board.

***Advisory Committee.*** An advisory committee was established to provide input and guidance to the project team: Dr. William McCready, Dr. David Mutrie, and Dr. Janice Willett. Ms. Dorothy Wright participated as an ex-officio member. Members of the Advisory Committee provided background information on the AFP and the LEGs initiative, and reviewed and provided feedback on the research design, question guide, and study findings.

***Literature Review.*** A targeted literature review was conducted to understand the history of AFPs, challenges faced for revaluation, and indicators used. The literature review also informed the development of the question guide used in the qualitative interviews. NOAMA and LEG-related documents, including initial proposals, were also reviewed.

***Interviews with LEG Leads.*** Qualitative interviews were conducted with LEG Leads to better understand what LEGs do and how they operate, what they hope to accomplish and the challenges they face, both to gather evidence for the developing a Program Logic Model, and to provide NOAMA and partners with interim feedback for program development. Findings were used to identify activity domains and key elements of the program logic model for the framework. Most of the findings are described in a separate report [6]; additional findings are described here.

***Other stakeholder consultations.*** Prior to developing the interview guide, consultations were held with members of the Advisory Committee, NOAMA, and NOSM leadership. Subsequently, other key administrative staff within NOSM were also consulted on specific issues.

***Feedback from the LEGs on the draft Program Logic Model.*** Teleconferences were held with LEG Leads and Administrators to obtain feedback on the draft Program Logic Model. Feedback was used to revise the evaluation framework.

## II. IDEAS OF SUCCESS AND SUGGESTIONS FOR EVALUATION

Nine LEG Leads, participated in semi-structured interviews between January–April 2014. Participants were purposively selected from among the 23 operational LEGs (at the time) representing the first wave of LEGs. In the initial interviews, participants were asked directly and indirectly to discuss their ideas about how LEGs should be evaluated, and what should be measured for monitoring and evaluation purposes. Descriptions of future goals overlapped with ideas of success, and covered the outcomes of present activities as well as desired activities that were not yet in the reach of the LEG. The results are presented below.

**Table 1** provides a summary of responses to participants' description of what success would look like for their LEG in about five years, and their suggestions regarding how LEGs could be evaluated, including possible indicators or measures. Participant's comments were summarized and then grouped into main themes, reflecting most of the activity domains described in the study report: Medical education/clinical teaching; professional development; scholarship, research and innovation; recruitment, retention, and community engagement; and LEG organization and administration.

***Challenges for Evaluation.*** Some participants offered comments and recommendations on the process of evaluation. For example, some thought that it was too soon to evaluate their LEG, as they were still in a developmental stage. Several commented on the difficulty of distinguishing between the success of LEGs and NOSM; others commented on the difficulty of trying to evaluate different types of LEGs.

> *... You need to keep it simple, because we're already feeling administratively tasked by the development process. And if the system is very complex and we have to spend a lot of time on evaluation, it will take away time from innovation.* (Large Community LEG)
>
> *... it would be hard to directly attribute stuff to the LEG and nothing else . . . And many LEGs are involved in doing very different things than us - you have a Psychiatry LEG, you have an Anesthesia LEG, how do you evaluate yourself compared to them? (Medium Community LEG)]*
>
> *If you're tracking LEGs over time, the indicators would overlap with the success of NOSM. For example, how many residents stay in Northern Ontario to work, or the number that pass their exams... It will be difficult to differentiate between success of LEGS and success of NOSM...* (Hospital Department LEG)

**Table 1: Summary of participants' views about success, indicators, and other thoughts about evaluation**

| | ID | "Success" / Goals | ID | Indicators | ID | Recommendations, Comments |
|---|---|---|---|---|---|---|
| Medical Education | 1, 3, 4, 5, 6<br><br>8 | Increase in teaching and other academic activity (relative to available preceptors/physician resources)<br><br>Become full-fledged academic department, including rounds, grand rounds, journal clubs... | 1, 3, 4, 5<br><br>4<br><br>6 | Change in activity / documented increase in activities or new activities<br><br>(Maintaining level of activity despite loss of physicians)<br><br>Development of collective activities related to delivery of medical education | 1<br><br>4<br><br>3, 5<br><br>3 | Corporate memory is needed to document change over time<br><br>Have a specific (limited) mandate - measuring progress would be difficult<br><br>Not all teaching activity is recognized as a "LEG" activity; Not collecting data on academic activity not funded by the LEG; could do it if important to NOSM<br><br>Each LEG is different, how to compare against each other? Different curricula have different time/resource requirements. |
| | 2, 4, 5, 6, 7 | Quality/success of medical education | 2, 4, 5, 7<br>4<br>2, 4, 5<br>7 | Learner evaluations (formal; already done by NOSM)<br><br>Informal feedback from students<br>Learner demand - Number of learner requests<br>Current learner's interest in ongoing/future learning opportunities in the community<br>Number / % of learners who pass their exams<br>Number / % of learners who remain/practice in the north | 2<br><br>4<br><br>7 | Need access to NOSM evaluations, why duplicate?<br><br>LEG leads could use information from student evaluations to measure success of teaching activities, identify problems/support needs at both individual and group level<br><br>Indicators of LEG success would overlap with indicators of NOSM success; difficult to differentiate |
| Professional Development | 2, 3, 4, 6, 7 | CME/faculty development | 2<br><br>3<br><br>6<br><br>6, 7<br>2, 9 | Faculty development programs are offered regularly, are well attended & well evaluated<br>CME programs offered; members have up-to-date skills (e.g. ATLS certification)<br>Formal/informal activities related to collective/group delivery of medical education (e.g. how to improve learner feedback)<br>Incentives/awards earned for good quality/excellence in teaching<br>Faculty promotion | 6<br><br>7 | LEG administrator complied application for an external body for a member's teaching award<br><br>Bonus given to faculty who get good evaluations from students |
| Scholarship | 2, 3, 4, 5, 8 | Increase in research being conducted in the community<br>Become full-fledged academic department, including research | 2, 3, 4, 5<br><br>4 | Number of innovation grants<br>Number of research projects (funded, unfunded)<br># of research projects supported by the LEG<br>Establishment and evaluation of a research initiative | 4, 5, 8<br><br>7, 9 | Dependent on ability to recruit/retain physicians<br><br>Success with innovation grants is motivational |

| | | | | | | |
|---|---|---|---|---|---|---|
| Recruitment, Retention, and Community Engagement | 4, 5 | Recruitment and retention of physicians (expanding preceptor base) | 4, 5 | Increase in number of preceptors<br>Number of possible learner placements (expanded teaching capacity) | 8 | Not relevant to our LEG because we're not using LEG funds for those activities (paid with different funds) |
| | 5, 6, 7 | Create enhanced learning environment, community support for learners | 5, 7<br><br>6 | Learners reporting a positive experience<br>Learners remain to practice in the north/rural areas<br>Improved feedback to the learners<br>Improved learner satisfaction | 7 | Indicators of LEG success would overlap with indicators of NOSM success; difficult to differentiate |
| | 2,4, 5, 6 | Learner retention into practice | 2, 5,6<br>4, 5 | Learner evaluations of community<br>Former learners practicing in community<br>Learners retained into practice<br>Signed return of service agreements | 2,5 | Learners are future colleagues, teaching is indirect recruitment |
| | 2, 3 | Growth/maintenance of membership | 2, 3 | Increase in # of members<br>% of physician community that are LEG members | | |
| Organization and Administration | 6 | Completion of academic deliverables | 6 | Completion of all scheduled academic deliverables | 6 | Based on each LEG's expectations/agreements |
| | 7, 8, 9 | Tracking/monitoring academic activity | 7, 9<br>8 | Points for LEG and non-LEG activity<br>Points for medical education activity | 7<br>8<br>9 | Non-LEG activity is not paid but tracked, recognized.<br>Only medical education activities are tracked<br>All academic activity is considered LEG activity; need to develop tool to help track points |
| | 1, 3, 6, 7 | Members are engaged and participating in LEG activities and governance | 1, 3, 6<br><br>1<br>7 | Committees are meeting<br>#/% of members actively engaged in teaching<br>Members engaged in projects, initiatives<br>Funds appropriately spent in reasonable time frame<br>Transparent, bidirectional reporting | 1<br><br>3, 7<br><br>1 | Keep it simple, don't add administrative complexity, will take away from innovation<br>Success of LEG, Medical Community, NOSM – inseparable<br>Funds are accumulating for lack of activity |
| | 2 | Administrative effectiveness | 2 | Timely remuneration for teaching (members' perspective)<br>Members' awareness of research opportunities<br>Member's evaluation of information and support for research provided by LEG<br>Professional Development opportunities offered (number; member's evaluation) | 1<br><br>2<br><br>8 | Corporate memory is needed to document change over time<br>Don't evaluate while still in "start up," wait until systems are established<br>Difficult to get physicians to compete a survey |

***LEG-funded vs. other academic activity.*** One challenge that emerged for evaluation was the fact that each LEG varied on which activities were paid for by LEG funds. That is, two different LEGs could implement the same activity, but where one paid for the activity with LEG funds, another might use a different source of funds. This was a challenge in the sense that many LEGs thought they should be evaluated only on those activities paid for by the LEG:

> *For us, evaluation indicators on recruitment or staffing levels . . . would not really be relevant, 'cause we're not using the funds for that at all, we're using it exclusively for academics . . . recruitment is paid with different funds...* (Hospital Department LEG)

Although maintaining that other-funded activity was not "LEG" activity, one LEG commented on the potential problem of not measuring the other-funded activity:

> *... if you're evaluating us, and comparing us to someone who doesn't have to do these VARs, it's a big chunk of time is what I mean. It's a big chunk of clinical teaching time that we have to do that is outside the LEG. So if you were just strictly looking at it from a LEG standpoint, you might say, well, you don't do that much teaching. Well, yeah, but the VAR is part of our teaching, but it's not recognized as part of our LEG duties. It muddies the waters in terms of "Well, what do you actually do?"* (Medium Community LEG)

One LEG commented that although they were not tracking other-funded academic activity, they could do so without much difficulty, but would need some impetus from NOSM to do so:

> *We could become much more intentional about capturing all that members of the LEG do, even though it's not necessarily funded – yet – directly from the LEG . . . We've got deliverables that the LEG would like, but not being funded directly by the LEG in our present model. . . We should probably be more diligent about collecting data on those activities, but we're not, because it's not being funded through the LEG monies . . . We could do that, but we would have to hear from NOSM that that was something really important to them...* (Small Community LEG)

One Hospital Department LEG that used a point system had started tracking additional activities to recognize their members' activity, even if though the activity was not remunerated by the LEG:

> *...Recently we've started tracking some activities that aren't paid by the LEG– we code the points, but they are not paid, but the intent is to track academic activity overall... Some of the activities might be paid by NOSM, separate from the LEG funds, for example, simulation sessions and lessons. The Academic Coordinator gets lots of points – it's important to recognize the high-intensity activity - but gets paid through NOSM. These are still tracked in point system to see what is getting done by faculty members... (Hospital Department LEG)*

***Interest in using learner feedback.*** Several LEGs indicated an interest in using learners' evaluations of clinical faculty and programs as a key data source for learner satisfaction, both for internal monitoring and evaluation and for external/overall evaluation. One Hospital Department LEG was using learner feedback to provide a financial reward for teaching excellence. Inability to access the data was a barrier for others. While respectful of the privacy and confidentiality protections that were perceived to be the main barrier, participants also felt that duplicating the effort would be a waste of time and resources:

> *... We need to have some way of measuring the teaching deliverables here . . . Probably what's got to happen is that we need to develop, we can pirate from NOSM their forms – I hate duplicating the services, because again if NOSM already has an evaluation form on teachers and their deliverables, then why do we have to do it? If we have access to it, and the red flags are there, then we can act on that. But the way it sits now, I'm not sure that NOSM wants to provide us with information about an evaluation on a professor, they say that's a conflict, but we're responsible for deliverables, so . . . we need to get that information. I don't want to reinvent the wheel, it's already being done, in some way we need to have access.* (Large Community LEG)

## III. LEG FEEDBACK ON THE DRAFT PROGRAM LOGIC MODEL

All 40 LEGs (implemented or under development) were invited to participate in a teleconference to provide feedback on the Program Logic Model. The discussion was focused on the appropriateness of each of the five domains and the 24 main goals identified during the initial interviews with LEG Leads. Participants were further asked to describe the priority they placed on each goal, suggestions for measuring progress, and which domain they would select for initial data collection. A discussion document distributed in advance.

Two teleconferences were held in October 2014, with a combined total of 6 participants representing four hospital department LEGs (Sudbury and Thunder Bay) and three community LEGs from the North East region; none were from more northerly communities. Non-response bias combined with limited geographic representation appeared to contribute to differences in LEG priorities, compared to the LEGs that participated in the initial interview. This was particularly evident in responses to the Recruitment, Retention, and Community Engagement domain.

### A. Appropriateness and Priorities

Results are summarized in Table 2 (next page); a more complete description of the findings appears in Appendix B.

Caution is warranted in interpreting the priorities. The summary indicators should not be interpreted as indicating the LEGs were unanimous – they were not. Also, the reasons given for being high or low priority were quite variable:

| **"High Priority"** | **"Low Priority"** |
|---|---|
| "What we're working on now" or "our current focus" | "We've already achieved that goal" |
| "What we're most comfortable with, because we've been doing it a long time" | "That's a longer-term goal, we're not there yet" |
| "It's the main purpose of the LEG" | "It's important, but it's for someone else (not the LEG)" |

## Table 2: Summary of feedback on the goals of the Program Logic Model

1 = Highest priority, shared by nearly all LEGs

2 = High to medium priority in the near term for many LEGs

3 = Lower priority or longer term priority, at least in the short term

4 = Appropriate, but not a priority

5 = May not be suitable for all LEGs – optional (may be high priority for some, but not appropriate for others).

| | | Priority | Suggested Indicators (possible data sources) |
|---|---|---|---|
| **A** | **Medical Education & Program Development** | | |
| A1 | Deliver the NOSM curriculum (base academic activities) effectively and consistently | 1 | Indicators from LEG report to NOAMA – comparison of planned to completed base academic activities, such as:<br>- precepting - maintain or increase capacity<br>- will provide case-based learning<br>- will provide informal mentoring<br>- will establish journal clubs<br>- LEG members will conduct rounds on a regular basis)<br>- planned expanded academic activities<br><br>Completion rate of learner evaluations by clinical faculty (LEG or NOSM)<br><br>Learner evaluations, learner satisfaction (NOSM Program Evaluation data, or LEGs' own evaluation data)<br><br>Increase in requests for community (NOSM Scheduling)<br><br>Learner achievement (NOSM) |
| A2 | Increase the number of post-graduate medical education opportunities | 3 | Indicators from LEG reports to NOAMA<br>- capacity (clinical teaching weeks, # and type of learner) for PGME<br>- Post-graduate elective learners<br>- Planned expanded academic activities for post-graduates |
| A3 | Develop new programs/learning opportunities for students/residents in the community | 3 | Indicators from LEG reports to NOAMA |
| A4 | Promote interprofessional learning and care | 5 | Learner-based measure, such as learner's comfort with interprofessionals (item on NOSM Program Evaluation).<br><br>LEG report to NOAMA is possible source (LEGs also report on interprofessional learners affiliated with NOSM); NOSM is also possible source |
| A5 | Increase participation of LEG members in medical education leadership activities | 3 | None described; LEG report to NOAMA is possible source; NOSM possible source |
| A6 | Improve recognition of excellence in clinical teaching | 5 | Number of awards received; LEG report to NOAMA is possible source |
| **B** | **Professional Development** | | |
| B1 | Increase the local availability of accredited CME | 1 | Accredited CME events sponsored by the LEG (NOSM Office of CEPD) |

| | | | |
|---|---|---|---|
| | | | attendance at events, evaluations of events<br><br>% of LEG funds spent on CME |
| B2 | Increase participation in faculty development activities | 2 | Accredited CME events sponsored by the LEG (NOSM Office of CEPD); (examples: Use of PBSG:ED program; teaching evidence-based medicine workshop; sponsoring local CEPD conference) (LEG reports; NOSM Office of CEPD)<br><br>% of LEG funds spent on Faculty Development |
| B3 | Strengthen mentoring by and for clinical faculty | 5 | |
| B4 | Increase participation in Leadership Development | 3 | |
| **C** | **Scholarship, Research & Innovation (SRI)** | | |
| C1 | Develop/increase research & knowledge translation and exchange (KTE) capacity | 1 | Hiring of support staff, and/or staff time allocated to SRI activity (LEG, Report to NOAMA)<br><br>Sponsorship of CEPD activity related to SRI (e.g. research training)<br><br>Participation in CEPD activity related to SRI (e.g. research training)<br><br>LEG funds allotted for research and innovation<br><br>% of LEG funds spend on SRI |
| C2 | Develop and participate in practice-based research networks | 3 | |
| C3 | Increase the amount of regional (core-periphery) research collaboration | 3 | |
| C4 | Conduct community-engaged scholarship (CES) / community-based research | 2 | |
| C5 | Increase amount of funded research being conducted by clinical faculty | 1 | NOAMA AFP and Clinical Innovation grants (LEGs, NOAMA)<br>- Number of proposals submitted<br>- Number of grants awarded<br>External grants |
| C6 | Increase volume of innovative activity (MERGE with C5) | 2 | |
| C7 | Increase KTE (documentation, dissemination, communication) for clinical innovations and QI activities | 2 | Number of publications, presentations (LEG report) |
| **D** | **Recruitment, Retention, and Community Engagement** | | |
| D1 | Maintain or increase physician complement at approved level or level based on locally-determined needs | 4 | |
| D2 | Retain learners into practice | 4 | |

| | | | |
|---|---|---|---|
| D3 | Contribute to LHIN, local partnerships & initiatives to address identified needs of the community | 4 | |
| **E** | **LEG Administration** | | |
| E1 | Improve organization of clinical teaching & reduce administrative burden on individual physicians | 1 | Physician satisfaction - but data collection would be difficult<br><br>Feedback and/or documentation on timeliness of payments |
| E2 | Ensure effective, fair, and transparent governance | 2 | Annual meetings |
| E3 | Ensure continuity and sustainability of LEG | 2 | |
| E4 | Engage in knowledge exchange, peer support, collaboration and networking with other LEGs | 3 | Attendance of members from other LEGs at CEPD events<br><br>Attendance at NOAMA LEG meetings |

1 = Highest priority, shared by nearly all LEGs; 2 = High to medium priority in the near term for many LEGs; 3 = Lower priority or longer term priority, at least in the short term; 4 = Appropriate, but not a priority; 5 = May not be suitable for all LEGs – optional (may be high priority for some, but not appropriate for others).

## B. Preferred Domains for Initial Evaluation Efforts

Participants were also asked to consider which domain they felt the most prepared or comfortable to work on in terms of initial data collection, and state their first, second and third choices.

**Domain Priorities for Evaluation, rank-ordered (not unanimous)**

1 Medical Education
2 Administration
3 Professional Development
4 Scholarship, Research and Innovation (SRI)
5 Recruitment, retention and community engagement

Overall, the medical education was the first preference, because that was the primary purpose of the LEG. And, since medical education was not a new activity, most LEGs felt comfortable with and the proposed measures, even eager for more feedback. The Administration domain ran a close second, because that was what many LEGs were working on as current priority, although more established LEGs were less focused on this domain and more on the SRI and professional development domains. The professional development domain was the third preference overall. However, each LEG had different priorities, depending on where their current focus was in LEG development and implementation.

## C. Summary of Feedback

The feedback was positive in the sense that the list of domains and goals was thought to be comprehensive. One additional administrative goal was added as the result of feedback (support the development of academic culture, E5 in the revised PLM). In most cases, all the goals were thought to be appropriate (if not a priority for that LEG). The exceptions were:

> *Promote interprofessional education:* This goal was controversial; the goal was important to some, but one participant claimed the goal was inappropriate because it represented a conflict of interest between physicians and interprofessional providers.
>
> *Strengthen mentoring of clinical faculty:* Mentoring was considered informal, very individual, and not measureable.
>
> *Contribute to community partnerships and initiatives:* Some (not all) considered this outside the (teaching) mandate of the LEGs.

Again, all of the goals were described by LEGs in the initial interviews. Differences between the interview participants and the feedback participants may account for the lower interest in certain goals. For example, the lower interest in the recruitment, retention, and community engagement domain may reflect actual differences in recruitment challenges among the LEGs. The lack of familiarity with or interest in formal activity related to preceptor mentoring may be a related issue. The perspectives of both groups of participants are valid, and the challenge remains in integrating the variability of the LEGs in a single framework.

Other surprises included a limited interest in new program development, where most participants indicated a preference for maintaining the state of their current programs and learner opportunities. Most (but not all) LEGs conveyed the sense that they were already providing as many learner opportunities as they could, and more would result in overload. One hospital LEG emphasized the facility and infrastructure constraints as the limiting factor – they simply had no space for more faculty, more learners, or new programs.

Although some participants appreciated seeing the goals outlined, others indicated the language used was not always physician friendly: "W*e're doctors, not MBAs."* Some items were confusing to them, and as written, the goals could be off-putting, possibly even discouraging to some. Another message was that while the Leads recognize the importance of good organization and administration, few clinical physicians would be enthusiastic about such tasks, and the appearance of increasing bureaucracy would be a deterrent to some LEGs.

Feedback also reflected an ongoing tension identified in the qualitative research between three different sets or levels of activity that could be measured. The smallest set of goals is the set that each self-governed LEG has determined for itself (Level 1). Next is the broader range of activity that NOAMA can fund at the AFP level (Level 2). And finally, given that most LEGs and/or their members are also involved in academic activity funded by non-AFP sources (e.g. activities funded directly by NOSM), and given the AFP objective of advancing an academic culture, there is a rationale for measuring all academic activity of the LEGs (Level 3), regardless of the funding source. A key challenge for NOAMA will be explaining the rationale behind the choice, while perhaps needing to reassure LEGs that disagree with the choice.

## IV. REVISED PROGRAM LOGIC MODEL

The program logic model (PLM) is intended to ensure that explicit relationships between goals, strategies, activities, outputs and outcomes are identified, as well as to acknowledge the resources and other pre-conditions necessary to achieve desired outcomes. For each goal, the model identifies resources needed, strategies to accomplish the goal, activities or processes of implementation, and outputs (short-term) and outcomes (long-term) as different types of indicators. All of the elements of the PLM in the first draft were derived entirely from the qualitative interviews. The revised version **(Appendix C)** reflects feedback from the Advisory Committee as well as feedback from the LEGs.

The **goals** are the purpose of the activity, or what the LEGs hope to achieve; everything else follows from the defined goals. The goals were identified from a combination of LEG documents and the qualitative research: participants' reasons for becoming a LEG, the benefits of becoming a LEG, and expectations for the future. It is explicitly recognized that not all goals and activities will be relevant to all LEGs, but the goals represent the breadth of activity funded by NOAMA.

The **preconditions** are those conditions that must be met or structures/resources that must be in place to enable the LEG to achieve the goal. However, these are usually determined externally (not by the LEG), and are <u>not</u> recommendations regarding the use of LEG or AFP funds. Preconditions need to be accounted for, because if not met, they become constraints that need to be acknowledged when interpreting outputs and outcomes. They represent some of the systems factors that facilitated or benefitted the LEG, or alternatively represented barriers or challenges to accomplishing their goals.

**Strategies** are suggested or focused approach achieving the goals. These were derived primarily from the qualitative study (LEG successes and accomplishments), or where there were gaps, from the literature. The **activities** or processes summarize either actual or planned activities, or gaps in activity identified during interviews. **Outputs**

are intended to represent the short-term and proximate results of an activity; output measures facilitate more direct attribution of impact to the program being evaluated, but tend to be intermediates or proxies to the actual desired outcomes. **Outcomes** tend to take more time to realize, and may be more distal and difficult to attribute exclusively to program impact, but represent what the program ultimately hopes to accomplish.

This format was chosen for two main reasons. First, it reflects the approaches take by other AFPs and may provide a bridge to prior work, even though the domains, goals, and activities reflect a very different kind of AFP (see for example, the technical report of the AHSC AFP, 2007).[7] It was also chosen because it supports the inclusion of important contextual information. A key message from participants was that success of the LEGs hinged on overcoming resource limitations in general, and physician shortages in particular. Explanatory indicators can be derived from identified requirements, and used in interpreting the results of process, output and outcome indicators.

The framework supports different types of evaluation (process, outcome), and in this case, is intended to work at two levels: first, at the individual LEG level, and second, at the AFP level (LEGs in the aggregate). A major challenge was to identify goals and activities that represented the interests of a very diverse group of organizations, as well as the objectives of various stakeholders.

## V. IMPLEMENTATION

As NOAMA and partners move toward developing an M&E implementation plan, the framework offers a set of guiding principles, options for implementation, and issues that require attention, as they will affect planning choices as well as the implementation process.

### A. Guiding Principles

The following are suggested as some guiding principles to be observed in developing a monitoring and evaluation implementation plan.

The framework is intended to enable evaluation at both the individual LEG level and in the aggregate (AFP Level). Tracking change over time at the AFP level and at the LEG Level should be the focus, not comparison of LEGs to one another.

***Allow 3-5 years to prepare for evaluation.*** Given that the LEGs model is still developing, it is too early for a formal evaluation. And, as it can take time to establish reporting and data collection systems, this should be the focus of efforts for the near future. NOAMA should provide technical assistance to the LEGs to support the development of these systems.

***Include preconditions as explanatory indicators.*** LEGs operate under variable conditions of resources and constraints that are beyond the control of invidual LEGs. Two major constraints in Northern Ontario are geography/distance, and the supply of physicians relative to demand for clinical services. The status of the preconditions should be measured as explanatory indicators to allow for a contextually-informed interpretation of measures of academic productivity.

***Align indicators with other data requirements.*** To the extent possible, indicators should align with other data reporting requirement to minimize extra data collection and reporting. These include aligning evaluation indicators with NOAMA's current annual report indicators, and academic promotion criteria. Development of a LEGs activity reporting system based on those deliverables could also enable individual physicians to track activity for the preparation of academic dossiers. This added value may encourage greater cooperation with collecting and reporting data.

***The evaluation framework must be flexible.*** The diversity of size, activity, and desired outcomes is very problematic for establishing a common set of evaluation criteria. "One size" will not fit all. The Program Logic Model covers the range of program objectives, activities and outcomes described by participants, however, LEGs are not expected to accomplish all of the goals and activities. The evaluation plan needs to allow for differences among individual LEGS and support local decision-making in the selection of evaluation criteria that are applicable to each LEG.

***The evaluation framework must be dynamic.*** Overall, the LEGs Initiative is still in its early stages and will continue to evolve as new groups form, and as all groups gain more experience. The evaluation framework will need to evolve as well. External factors such as changes in policy or Ministry priorities may also require changes to the framework. An evaluation plan will need to include a process for ongoing review and adaptation to ensure it evolves with the LEGs.

***Qualitative evaluation will remain important.*** Each LEG has their own criteria for success, independent of the larger objectives of the AFP. It is important to integrate these perspectives along with any quantitative measures used in evaluation (e.g. narratives about success, success stories/impacts). The evaluation plan needs to address qualitative reporting requirements in addition to the quantitative evaluation.

### B. Options for Implementation

Given the early stage of development of the LEGs Initiative, there is the opportunity to "build in" evaluation from the beginning, and ensure that the LEGs are prepared in advance for evaluation. But this also means that a number of choices and decisions are yet to be made. In particular, given the need to develop data collection systems as well as accommodate differences among the LEGs, options described involve various scenarios of how to gradually implement data collection for M&E purposes. These include:

- All LEGs collect data for the priority 1 domain in the first year; add priority 2 domain in year 2; add a domain each year.
  - Advantage – NOAMA can work out the data collection system for the highest priority domain across all LEGs in the first year (obtain baseline data).
  - Disadvantage – LEGs don't all share the same priorities

- Allow each LEG to select the domain they want to start with
  - Advantages : the information will be more useful to the LEG itself, and NOAMA will get feedback in the first year on the metrics for multiple domains
  - Disadvantage – it will take longer to obtain baseline data across all LEGs for any given domain

- Select a reduced set of goals/indicators across all domains (1-2 of the highest priority goals from each domain) to work on for the first year.

- Some LEGs are relatively advanced and may be able to start collecting data for all five domains, if they so choose.

## C. Key Issues for Evaluation Planning

A number of issues were identified that affect LEG implementation and will affect monitoring and evaluation efforts if unresolved.

**1. Need to familiarize all NOSM staff with the purpose of the AFP, with the role of NOAMA, and with the LEGs Initiative.** As a key partner in delivering distributed medical education, it is important that all NOSM staff understand the role of NOAMA and the LEGs in implementing the NOSM curriculum. The success of NOSM and the LEGs go hand-in-hand, and sustainability of the LEGs hinges in part in NOSM systems adapting and working with and through the LEGs. Possible mechanisms include presentations to the Academic Council, articles in NOSM publications, and staff information sessions. In addition to raising awareness, NOSM leadership should signal their support for the LEGs so that staff will understand the importance of effective communication and collaboration with the LEGs.

2. **Need for NOSM, NOAMA and the LEGs to identify and resolve systems issues.** Interviews revealed some specific issues where NOSM systems were not oriented toward the new organizations or their collective responsibility for medical education. This increases the administrative load on the LEGs and may result in duplication of efforts. These system barriers also draw energy and resources away from innovation

and other activities. For example, modifying information systems to include a LEG identifier in faculty or student records will enable information systems and products to begin responding to information needs at the LEG level; a particular need is for the LEG to be informed of the completion (or not) of a teaching assignment. This is particularly important as a number of proposed indicators require data from NOSM aggregated at the LEG level, which is not currently available. Another possibility is to enable LEG Administrators access to One45, regardless of whether they are appointed as SACs. Finding solutions to these challenges needs to be a collaborative effort with NOSM staff, NOAMA, and representatives from the LEGs.

**3. Limited engagement of clinical faculty with NOSM outside of Sudbury and Thunder Bay.** Participants in interviews and feedback sessions were not always aware of services and opportunities offered by NOSM, for example, that the NOSM Office of Continuing Education and Professional Development could provide accreditation for LEG activities.

**4. Incomplete awareness of/support for the "Development of academic culture" mandate of the AFP.** There is a tension between LEGs that want the LEG mandate to remain narrowly focused on clinical teaching, and those that are embracing the other academic activities. The early focus of the LEGs initiative on clinical teaching may have inadvertently contributed to a misunderstanding of the scope of the AFP mandate.

**5. Difference between "academic" and "NOAMA-funded" activity.** Related to number 4, an ongoing question for many LEGs is the relevance of reporting on activities that are not funded by NOAMA or the LEG. NOAMA-funded activity is a subset of academic activity, with the subset varying by each LEG. Some participants requested that NOSM-funded academic activities all be paid through the LEG to reduce this distinction. Either way, LEGs need a clear signal about what level and activities they need to report on.

6. **Paper-based reporting vs. need for database development.** NOAMA and the LEGs Initiative have made significant advances since the interviews, including the development of an annual report form. Many of the data items collected on the report are now included as indicators in the evaluation framework. At present, reporting is done on paper, however, so the information does not immediately reside in an electronic database that makes information accessible for analysis. Tools such as internet survey design software could be used to develop an online reporting system that structures data collection for direct download into a database.

7. **Need to provide technical assistance to the LEGs to prepare for evaluation.** Implementation of the evaluation plan will require more hands-on support to the LEGs from NOAMA. We recommend that NOAMA consider creating a Program

Officer position to support the LEGs with evaluation planning. Key functions would include liaising with the LEGs, providing on-site support for evaluation planning and development of systems for data collection and reporting, and for ensuring ongoing feedback and adaptation of the evaluation plan.

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## APPENDIX A
# LIST OF ACRONYMS

| | |
|---|---|
| AFP | Alternative Funding Plan |
| AHSC | Academic Health Science Centre |
| CEPD | Continuing Education and Professional Development |
| CME | Continuing Medical Education |
| LEG | Local Education Group |
| M&E | Monitoring and evaluation |
| MOHLTC | Ontario Ministry of Health and Long-term Care |
| NOAMA | Northern Ontario Academic Medical Association |
| NOSM | Northern Ontario School of Medicine |
| OMA | Ontario Medical Association |
| PCTA | Physician Clinical Teachers Association |
| PLM | Program Logic Model |
| SAC | Site Administrative Coordinator |
| SEAMO | Southeastern Ontario Academic Medical Organization |
| SRI | Scholarship, Research, and Innovation |

**Appendix B:**

**Feedback from the LEGs on the Draft Evaluation Framework**

**(Full Report)**

All 40 LEGs (implemented or under development) were invited to participate in a teleconference to provide feedback on the Program Logic Model. The discussion was focused on the appropriateness of each of the five domains and the 24 main goals identified during the initial interviews with LEG Leads. Participants were further asked to describe the priority they placed on each goal, suggestions for measuring progress, and which domain they would select for initial data collection. A discussion document distributed in advance.

Two teleconferences were held in October 2014, with a combined total of 6 participants representing four hospital department LEGs (Sudbury and Thunder Bay) and three community LEGs from the North East region; none were from more northerly communities. Non-response bias combined with limited geographic representation appeared to contribute to differences in LEG priorities, compared to the LEGs that participated in the initial interview. This was particularly evident in responses to the Recruitment, Retention, and Community Engagement domain.

## A. Appropriateness of Goals and Priorities for Own LEG

With a couple of exceptions, participants indicated that the goals were appropriate for the LEGs. None of the participants identified any additional goals, indicating that the list appeared complete and comprehensive. Several reiterated a concern for keeping the LEGs focused on medical education.

Priorities were summarized for participants as follows; this does not imply consensus.

1 = Highest priority, shared by nearly all LEGs
2 = High to medium priority in the near term for many LEGs
3 = Lower priority or longer term priority, at least in the short term
4 = Appropriate, but not a priority
5 = May not be suitable for all LEGs – optional (may be high priority for some, but not appropriate for others).

***Medical Education & Program Development (Domain A)***

| A | Medical Education & Program Development | |
|---|---|---|
| A1 | Deliver the NOSM curriculum (base academic activities) effectively and consistently | 1 |
| A2 | Increase the number of post-graduate medical education opportunities | 3 |
| A3 | Develop new programs/learning opportunities for students/residents in the community | 3 |
| A4 | Promote interprofessional learning and care | 5 |
| A5 | Increase participation of LEG members in medical education leadership activities | 3 |
| A6 | Improve recognition of excellence in clinical teaching | 5 |

In general, this domain was considered central to the mission of the LEG, although some specific goals were not without controversy. Participants strongly agreed that delivering the NOSM curriculum effectively and consistently (A1) was the single most important goal for their LEG, and was the highest priority – unless the LEG felt they had already achieved this goal.

Increasing the number of post-graduate opportunities (A2) and developing new programs for students and residents in the community (A3) overlapped in concept and require some rewording. Although all participants agreed these goals were appropriate, the priorities assigned to each varied by LEG, and ranged from high priority to not a priority. Where these goals were not priorities, reasons given included that they were satisfied with the current opportunities and/or were at maximum capacity, or that external constraints (facilities, infrastructure) were limiting factors.

The goal of promoting interprofessional learning and care (A4) was controversial. For most, the goal was vaguely appropriate - it was described as inherent to all clinical learning, but few participants described specific activities related to interprofessional care, and ranked it a secondary priority at best. One participant strongly felt that the goal was inappropriate and created a conflict of interest, as it put the LEG in the position of deciding whether or not to allocate funds to interprofessional providers – and take funds away from the physicians, the intended beneficiaries of the AFP. Although one participant indicated that funding interprofessionals had worked well for their group, this appeared to be more of an exception than the rule.

The goal of increasing participation in medical education leadership activities (A5) appeared to be more familiar to those located in the hub communities compared to more distant community-based LEGs. Although considered appropriate and even a priority, some suggested it was one of the first goals abandoned under high workloads and competing priorities. It was sometimes viewed more as an individual goal than a group goal for the LEG. It was considered high priority by only one of the participants, and of secondary priority or not a priority to the rest. For some, the distance factor appeared to be a major mental and physical constraint.

The goal of improving recognition of excellence in clinical teaching (A6) was also somewhat controversial. In general, it was considered appropriate and motivational, but a high priority for only one. However, for two community LEGs, implementing awards-focused activity through the LEGs was deemed borderline inappropriate. For one, it was an unnecessary use of LEG resources and a diversion from more important goals. For another, the LEG members had actually discussed the idea of recognizing excellence, but the group concluded that it would potentially do more harm than good to the cohesiveness of the group.

***Professional Development (Domain B).***

| B | Professional Development | |
|---|---|---|
| B1 | Increase the local availability of accredited CME | 1 |
| B2 | Increase participation in faculty development activities | 2 |
| B3 | Strengthen mentoring by and for clinical faculty | 5 |
| B4 | Increase participation in Leadership Development | 3 |

Overall, the professional development domain was considered a high priority, with some exceptions and controversy. Three goals were considered appropriate for the LEGs, with varying degree of priority. Increasing the local availability of accredited CME (B1) was the highest priority in this domain, and overall was a very high priority goal. Leadership development was the least familiar component, and as a consequence, increasing participation in leadership development (B4) was either seen as a longer-term priority, or not a priority for the participants.

Increasing participation in faculty development activities (B2) required explanation and examples; this was a high priority for about half of the participants, but of secondary importance to the rest. Most, but not all were familiar with the Northern Constellations conference. The McMaster Practice-based Small Group Learning (PBSG:ED) preceptor development series, available through NOSM's Office of Continuing Education and Faculty Development (CEPD)[44], was described by one participant in the first teleconference, generating more interest among other participants. Another LEG described working with the office of CEPD to develop an accredited workshop on teaching evidence-based medicine to learners. In the second teleconference, one LEG was preparing to hold its first local faculty development conference, and considered it very high priority.

The appropriateness of the goal (B3), strengthening mentoring by and for clinical faculty, was questioned as a goal for the LEGs. All participants described mentoring as an informal, casual, ad-hoc activity that was highly dependent on individual needs and interests, and none could envision mentoring as a structured activity. On a positive note, participants in one teleconference claimed that mentoring was an outcome of the LEG – the LEG structure created a new opportunity for members to come together and exchange ideas and learn from one another in a way that had not occurred before.

***Scholarship, Research and Innovation (SRI) (Domain C).***

| C | Scholarship, Research & Innovation (SRI) | |
|---|---|---|
| C1 | Develop/increase research & knowledge translation and exchange (KTE) capacity | 1 |
| C2 | Develop and participate in practice-based research networks | 3 |
| C3 | Increase the amount of regional (core-periphery) research collaboration | 3 |
| C4 | Conduct community-engaged scholarship (CES) / community-based research | 2 |
| C5 | Increase amount of funded research being conducted by clinical faculty | 1 |
| C6 | Increase volume of innovative activity | 2 |
| C7 | Increase KTE (documentation, dissemination, communication) for clinical innovations and QI activities | 2 |

Responses generally indicated the need to re-word and clarify most of the goal statements in this domain. Participants were on the whole enthusiastic about the SRI domain, even if they remained unsure of certain concepts or their LEG's ability to achieve these goals. The first goal (C1), developing capacity for research and for Knowledge Translation and Exchange (KTE), was a very high priority for some LEGs, even if they weren't sure how to go about it; capacity development and KTE were unfamiliar terms for some, but increasing the ability of their LEG to conduct research was the highest priority in this domain. Other high priority goals were increasing the amount of funded research (C5) and the volume of innovative activity (C6), although there was also the now familiar-discussion about "what is innovation?" The final goal of increasing KTE for

Developing practice-based research networks, and regional research collaboration (C2, C3) were also vague concepts; after describing the goals, participants tended to agree they were appropriate, but longer-term goals at best. Participants were divided about the importance of community engaged scholarship and community based research (C4), with rankings ranging from high priority to not a priority.

***Recruitment, Retention, and Community Engagement (Domain D)***.

| D | Recruitment, Retention, and Community Engagement | |
|---|---|---|
| D1 | Maintain or increase physician complement at approved level or level based on locally-determined needs | 4 |
| D2 | Retain learners into practice | 4 |
| D3 | Contribute to LHIN, local partnerships & initiatives to address identified needs of the community | 4 |

Of all the domains, this was the lowest priority among those who participated in the teleconferences. Several felt that the recruitment and retention goals (D1, D2) were not appropriate for their LEG, given that other groups or organizations in their community had the mandate to conduct those activities. The exceptions were two community LEGs, for whom it was a secondary priority. The goal of contributing to community partnerships and initiatives was also mainly seen as outside the mandate of the LEG; at this point in the discussions, participants emphasized the need to keep the LEGs focused on medical education. One participant indicated that these three items might be considered "downstream" impacts of the LEG, rather than direct goals or activities of the LEG.

***Organization and Administration (Domain E).***

| E | LEG Administration | |
|---|---|---|
| E1 | Improve organization of clinical teaching & reduce administrative burden on individual physicians | 1 |
| E2 | Ensure effective, fair, and transparent governance | 2 |
| E3 | Ensure continuity and sustainability of LEG | 2 |
| E4 | Engage in knowledge exchange, peer support, collaboration and networking with other LEGs | 3 |

All participants felt that all of the administrative goals were appropriate, and most felt they were very high priority, but not all agreed. For one of the early functioning LEGs, administrative goals had long been achieved and their priorities were now focused on newer challenges (e.g. research). Newer LEGs tended to be more focused on the administrative goals. For one participant, the view was that while appropriate, administrative goals were the lowest priority; this was because the group had been teaching long before the LEG was formed, and could function without the administration; as well, medical education and the other academic goals were the reasons that the LEG existed, so they should be of higher priority.

Of the four goals listed, the first goal of improving the organization of clinical teaching and reducing the administrative burden on individual physicians was rated as one of the top priorities of the LEG. The next two goals (E2, E3) on fair, effective and transparent governance and continuity and sustainability of the LEG were also high priorities. The fourth goal on networking and collaborating with other LEGs was also frequently considered a high priority, although the concept was vague to some; a few participants indicated that idea was so novel that it might take more time to gain momentum, and so rated it as a longer term goal.

## A. Suggested Measures and Data Sources

To the extent that participants' time permitted, participants discussed their ideas for measuring progress toward goals; discussions focused on the domains and goals of highest priority, with most time spent on discussing indicators in the medical education domain. Results are summarized in table 1 on page B-10.

***Medical Education and Program Development (Domain A).*** Most of the discussion on indicators focused on goal A1, delivering the NOSM curriculum/base academic activities effective and consistently. The new NOAMA reporting template was identified as a source of indicators for all the goals in this domain.

*Teaching capacity.* For clinical teaching/precepting, the NOAMA reporting template includes measures of teaching capacity for the previous and upcoming academic year, such as total clinical teaching weeks, indicator of whether the LEG can provide less, the same, or more weeks than the previous year, type of learners, and the total number of learners that the LEG can accommodate at one time, for both undergraduate programs, postgraduate programs, and electives.

*Other base academic activities.* In addition to precepting, the report form requests information on other base academic activities intended by the LEG for the upcoming year, including case-based learning in the clinical setting, informal mentoring, establishing a journal club, and presentation of rounds. Program development is also covered in the report, in a more narrative format (goal A3). As well, information on the participation of LEGs members in NOSM academic leadership activities (goal A5) is part of the report.

*Completion of learner evaluations.* Some participants indicated that completion of learner evaluations by clinical faculty remained a challenge, and agreed it was an appropriate indicator. However, lack of access to this information impeded some LEGs' ability not only to address this issue with members, but also to account for teaching activity. Confirmation of clinical teaching at NOSM is signaled by the completion of evaluations, but LEGs did always know when their members submitted evaluations, because the medical school information system, One45, did not notify LEGs when evaluations where submitted. Other LEGs, have found ways to get this information – for example, when the Administrator has access to One45 by virtue of also being a Site Administrative Coordinator. There was an expressed need for 'closing the loop", so that LEG Leads would have access to this critical information.

*Learner satisfaction and achievement.* Some participants also suggested that learner evaluation of the program would be the most important indicator. And, while some suggested that program evaluations conducted by NOSM should be accessible data, other LEGs had developed their own learners' program evaluation piece. Another indicator of learner satisfaction described was an increase in requests for placements in the community. As LEGs would not necessarily know about requests, the information should be obtained from NOSM Scheduling.

Ultimately, if the LEG were successful with clinical teaching, this should be reflected in learner achievement. Again, however, LEGs do not have access to that information, which would have to come from NOSM.

*Interprofessional learning (A4).* Because the goal of promoting interprofessional learning was controversial, and because interprofessional learning happened whether or not it was specifically promoted by the LEG, participants in one teleconference recommended a learner-based measure, such has the learners' comfort with interprofessionals. According to participants, this is already part of NOSM's program evaluation measures.

The NOAMA reporting template also requests information on capacity to accept interprofessional learners from programs administered by NOSM (Physician Assistant, Dietetics, Physiotherapy, Occupational Therapy, Speech/Language Pathology, and Audiology Programs). However, there is no information on other interprofessional learners (such as nurses, NPs, social workers, pharmacists). However, at least one LEG voluntarily added information on non-NOSM interprofessional learners that would be accepted by the LEG.

***Professional Development (Domain B).*** Suggestions for measuring progress for offering continuing medical education locally (B1), and for increasing participation in professional development (B2)both started with counting events offered locally, the number of attendees, and participant evaluations of the events. The importance of having these events accredited was then raised, however, not all participants were previously aware of the opportunity to obtain accreditation through NOSM. The number of accredited activities sponsored by LEGs was recommended, in addition to the number of overall activities. Data sources suggested could be the LEGs themselves, or NOSM's CEPD Office (for accredited activities).

Some participants suggested measures for specific activities, such as the number of LEG members attending the Northern Constellations conference.

One participant suggested that the percent of LEG funds spent on professional development (and on academic activities in general) - as opposed to topping up physician payments - was in itself an indicator of a LEG's academic priorities and academic productivity.

***Scholarship, Research & Innovation (Domain C).*** Discussion of indicators for the SRI domain focused mainly on the on the capacity development goal (C1). The concept of capacity development was not clear for some participants; nonetheless, a number of indicators were suggested, reflecting multiple approaches to building capacity. A couple of LEGs had hired research support staff, and suggested some indicator of personnel or staff time dedicated to SRI as an indicator, with the LEGs being the source of information. Participation of members or staff in training or professional development activities related to SRI was another potential indicator. One LEG was sponsoring a professional development workshop on community-based research, so CEPD activity focused on SRI was another indicator.

Although not all LEGs directly fund research activity, some larger LEGs have a sufficient number of members to be able to fund research. A suggested indicator was the amount or percent of LEG funds allocated for SRI activity, and/or the number of SRI projects receiving some LEG funding.

The goal of increasing funded research conducted by clinical faculty (C5) was considered fairly straightforward to measure. Suggestions included number of NOAMA AFP and Innovation grants awarded as well as number of proposals submitted. External grants were mentioned as well. Ultimately, participants hoped to publish their research (C7); beyond publications and presentations, no other measures of KTE were described.

***Organization and Administration (Domain E).*** Although LEGs are required to update their membership list annually as a condition of funding, none of the teleconference participants agreed that growth in membership would be a relevant indicator for their LEG, either in terms of capacity to deliver medical education or as a reflection of their members' satisfaction.

Members' perceptions of the effectiveness of LEG administration and governance (E1, E2) - for example, timeliness of payments, effectiveness of governance, and degree of transparency - were somewhat controversial. On the one hand, they were considered by some to be very important if difficult to obtain, since participation rates in a survey were likely to be very low. A problem described for some larger LEGs was that many members were thought to be only vaguely aware of the existence of the LEG, maybe perceiving little more than faster payments for teaching or that they communicated with someone locally now instead of with NOSM. The question tapped into a good deal of frustration as well. Some participants – as those shouldering the burden of LEG leadership and administration – even questioned the validity of the opinions of passive members who chose not to attend meetings or become more fully engaged in running the LEG.

Participants suggested that timeliness of payment should be measurable through LEG records/documents, and was suggested as a more objective measure of LEG efficiency. Reporting on holding annual membership meetings was discussed; while non-controversial, it did not appear to apply to all LEG governance models (particularly the very small co-located LEGs, where the full membership tended to meet more regularly), and was not considered meaningful.

For the goal of engaging in knowledge exchange with other LEGs (E4), the main suggestion was counting LEG members' attendance at the LEG Lead meetings. For one LEG planning a local professional development conference, attendance by members of other LEGs was also suggested.

One participant suggested measures of how much funding the LEG allocated to academic activities other than clinical teaching. This would be an indicator of how much commitment the LEG had to supporting the development of academic activities. This idea was included in the revised framework (goal E5).

One conclusion was that that differences in governance agreements among the LEGs would have the greatest impact on measures in this domain. Measures will have to be carefully constructed to accommodate these differences.

## Table 1: Summary of feedback on the goals of the Program Logic Model

1 = Highest priority, shared by nearly all LEGs
2 = High to medium priority in the near term for many LEGs
3 = Lower priority or longer term priority, at least in the short term
4 = Appropriate, but not a priority
5 = May not be suitable for all LEGs – optional (may be high priority for some, but not appropriate for others).

| | | Priority | Suggested Indicators (possible data sources) |
|---|---|---|---|
| **A** | **Medical Education & Program Development** | | |
| A1 | Deliver the NOSM curriculum (base academic activities) effectively and consistently | 1 | Indicators from LEG report to NOAMA – comparison of planned to completed base academic activities, such as:<br>- precepting - maintain or increase capacity<br>- will provide case-based learning<br>- will provide informal mentoring<br>- will establish journal clubs<br>- LEG members will conduct rounds on a regular basis)<br>- planned expanded academic activities<br><br>Completion rate of learner evaluations by clinical faculty (LEG or NOSM)<br><br>Learner evaluations, learner satisfaction (NOSM Program Evaluation data, or LEGs' own evaluation data)<br><br>Increase in requests for community (NOSM Scheduling)<br><br>Learner achievement (NOSM) |
| A2 | Increase the number of post-graduate medical education opportunities | 3 | Indicators from LEG reports to NOAMA<br>- capacity (clinical teaching weeks, # and type of learner) for PGME<br>- Post-graduate elective learners<br>- Planned expanded academic activities for post-graduates |
| A3 | Develop new programs/learning opportunities for students/residents in the community | 3 | Indicators from LEG reports to NOAMA |
| A4 | Promote interprofessional learning and care | 5 | Learner-based measure, such as learner's comfort with interprofessionals (item on NOSM Program Evaluation).<br><br>LEG report to NOAMA is possible source (LEGs also report on interprofessional learners affiliated with NOSM); NOSM is also possible source |
| A5 | Increase participation of LEG members in medical education leadership activities | 3 | None described; LEG report to NOAMA is possible source; NOSM possible source |
| A6 | Improve recognition of excellence in clinical teaching | 5 | Number of awards received; LEG report to NOAMA is possible source |
| **B** | **Professional Development** | | |
| B1 | Increase the local availability of accredited CME | 1 | Accredited CME events sponsored by the LEG (NOSM Office of CEPD) |

| | | | |
|---|---|---|---|
| | | | attendance at events, evaluations of events<br><br>% of LEG funds spent on CME |
| B2 | Increase participation in faculty development activities | 2 | Accredited CME events sponsored by the LEG (NOSM Office of CEPD); (examples: Use of PBSG:ED program; teaching evidence-based medicine workshop; sponsoring local CEPD conference) (LEG reports; NOSM Office of CEPD)<br><br>% of LEG funds spent on Faculty Develpment |
| B3 | Strengthen mentoring by and for clinical faculty | 5 | |
| B4 | Increase participation in Leadership Development | 3 | |
| **C** | **Scholarship, Research & Innovation (SRI)** | | |
| C1 | Develop/increase research & knowledge translation and exchange (KTE) capacity | 1 | Hiring of support staff, and/or staff time allocated to SRI activity (LEG, Report to NOAMA)<br><br>Sponsorship of CEPD activity related to SRI (e.g. research training)<br><br>Participation in CEPD activity related to SRI (e.g. research training)<br><br>LEG funds allotted for research and innovation<br><br>% of LEG funds spend on SRI |
| C2 | Develop and participate in practice-based research networks | 3 | |
| C3 | Increase the amount of regional (core-periphery) research collaboration | 3 | |
| C4 | Conduct community-engaged scholarship (CES) / community-based research | 2 | |
| C5 | Increase amount of funded research being conducted by clinical faculty | 1 | NOAMA AFP and Clinical Innovation grants (LEGs, NOAMA)<br>- Number of proposals submitted<br>- Number of grants awarded<br>External grants |
| C6 | Increase volume of innovative activity (MERGE with C5) | 2 | |
| C7 | Increase KTE (documentation, dissemination, communication) for clinical innovations and QI activities | 2 | Number of publications, presentations (LEG report) |
| **D** | **Recruitment, Retention, and Community Engagement** | | |
| D1 | Maintain or increase physician complement at approved level or level based on locally-determined needs | 4 | |
| D2 | Retain learners into practice | 4 | |

| | | | |
|---|---|---|---|
| D3 | Contribute to LHIN, local partnerships & initiatives to address identified needs of the community | 4 | |
| **E** | **LEG Administration** | | |
| E1 | Improve organization of clinical teaching & reduce administrative burden on individual physicians | 1 | Physician satisfaction - but data collection would be difficult<br><br>Feedback and/or documentation on timeliness of payments |
| E2 | Ensure effective, fair, and transparent governance | 2 | Annual meetings |
| E3 | Ensure continuity and sustainability of LEG | 2 | |
| E4 | Engage in knowledge exchange, peer support, collaboration and networking with other LEGs | 3 | Attendance of members from other LEGs at CEPD events<br><br>Attendance at NOAMA LEG meetings |

1 = Highest priority, shared by nearly all LEGs; 2 = High to medium priority in the near term for many LEGs; 3 = Lower priority or longer term priority, at least in the short term; 4 = Appropriate, but not a priority; 5 = May not be suitable for all LEGs – optional (may be high priority for some, but not appropriate for others).

## C. Preferred Domains for Initial Evaluation Efforts

Participants were also asked to consider which domain they felt the most prepared or comfortable to work on in terms of initial data collection, and state their first, second and third choices. Overall, the medical education was the first preference, because that was the primary purpose of the LEG, and since medical education was not a new activity, most LEGs felt comfortable with and the proposed measures, even eager for more feedback. The Administration domain ran a close second, because that was what many LEGs were working on as current priority, although more established LEGs were less focused on this domain and more on SRI and professional development. The professional development domain was the third preference overall. However, each LEG had different priorities, depending on where their current focus was in LEG development and implementation.

## D. Discussion

In part because of low participation and reduced geographic representation of the LEGs, the interests and priorities of the participants in the teleconferences varied from those expressed in the initial interviews. For example, the lower interest in the recruitment, retention, and community engagement domain may reflect actual differences in recruitment challenges than those experienced by LEGs in more northerly, remote communities. The lack of familiarity with or interest in formal activity related to preceptor mentoring may be a related issue. The perspectives of both groups of participants are valid, and the challenge remains in integrating the variability of the LEGs in a single framework.

Other surprises included a limited interest in new program development, where most participants indicated a preference for maintaining the state of their current programs and learner opportunities. A part of this was the sense that LEGs were already providing as many learner opportunities as they could, and more would be overload. One hospital LEG emphasized the facility and infrastructure constraints as the limiting factor – they simply had no space for more faculty, more learners, or new programs.

Another surprise was the controversy over the interprofessional education goal, which appeared to reflect a tension identified earlier in the first set of interviews between three different sets or levels of activity that should be measured. The smallest set of goals is the set that each self-governed LEG has determined for itself (Level 1). Next is broader range of activity that NOAMA can fund at the AFP level (Level 2). And finally, given that most LEGs and/or their members are also involved in academic activity funded by non-AFP sources (e.g. activities funded directly by NOSM), and given the larger goal of NOSM to advance an academic culture, there is a rationale for measuring all academic activity of the LEGs (Level 3), regardless of the funding source. A key challenge for NOAMA will be explaining the rationale behind the choice, while perhaps needing to reassure LEGs that disagree with the choice.

The feedback was positive in the sense that most goals were deemed appropriate, and the list of domains and goals was thought to be comprehensive. One additional goal was identified. Although some participants appreciated seeing the goals outlined, others indicated the language used was not physician friendly: "W*e're doctors, not MBAs."* Some items were confusing to them, and as written, the goals could be off-putting, possibly even discouraging to some. Another message was that while the Leads recognize the importance of good organization and administration, few clinical physicians would be enthusiastic about such tasks, and the appearance of increasing bureaucracy would be a deterrent to some LEGs.

**APPENDIX C**

PROGRAM LOGIC MODEL – 12 December 2014

**REVISED PROGRAM LOGIC MODEL FOR LEGs EVALUATION**

Note: Not all domains or indicators will be relevant to all LEGs

| **A. Medical Education & Program Development** | | | | | |
|---|---|---|---|---|---|
| **Goals** | **Preconditions** | **Strategies** | **Activities (Processes)** | **Outputs** | **Outcomes** |
| A1. Deliver the NOSM curriculum (base academic activities) effectively and consistently | Stability in available preceptors, and availability of back-up<br><br>LEG control over/input into scheduling | Develop LEG system to ensure coverage if individual preceptor's schedule changes | Learner activities are delivered as scheduled | # / % of learner activities that are rescheduled (NOSM Scheduling)<br><br>Difference between scheduled and delivered weeks of clinical teaching: (UG, PG, Electives) | Learner satisfaction<br><br>Learner achievement<br><br>Demand for placements<br><br>NOSM reputation |
| | Effective administrative support<br><br>Effective communication & collaboration between NOSM, LEG Administrator<br><br>LEGs have ability to track evaluation due dates and submissions (access to information in One45) | LEG monitors completion of learner evaluations (confirmation of clinical teaching) | Provide timely feedback to learners | % of evaluations completed by due date | |
| | | Documentation of base academic activities other than clinical teaching | Deliver activities per plan (Annual Report Submission, part B) | # Journal club meetings held<br><br># Rounds presented by LEG members<br><br>Expanded academic activities delivered | |

**APPENDIX C**

PROGRAM LOGIC MODEL – 12 December 2014

| A. Medical Education & Program Development (continued) | | | | | |
|---|---|---|---|---|---|
| **Goals** | **Preconditions** | **Strategies** | **Activities (Processes)** | **Outputs** | **Outcomes** |
| A2. Increase the number of post-graduate medical education opportunities | Number of physicians meets or exceeds approved / desired complement<br><br>Targeted funding for new program development | Ensure available funding is sufficient to support time for program development activity | Program Development activities for Rural Northern Ontario Stream, Royal College Specialties, other? (PGY3?) | Approval of programs by NOSM<br><br># of residents supervised<br><br>Accreditation of residency programs | Increase in number of post-graduate learners trained in the North |
| A3. Offer more learning opportunities to students/residents in the community | Number of physicians meets or exceeds approved / desired complement | Identify learner needs and interests, faculty expertise and interests | Faculty develop and offer new programs and learning opportunities in the community | # of new programs offered in the community<br><br># of learners participating in new programs | # of local programs with CEPD accreditation<br><br>Improved faculty and learner satisfaction |
| A4. Promote interprofessional learning and care | Support for interprofessional education, providers | Involve interprofessional providers in clinical teaching of medical learners | Medical students/residents learn from interprofessional providers/team | # of interprofessional providers involved in clinical teaching<br><br>Learner perception of interprofessional practice | Increase in physicians with preference for, competence in interprofessional practice |
| A5. Increase participation of LEG members in medical education leadership activities | Time, funds to support participation; geographic access | Develop strategy to facilitate faculty participation from distributed sites | Clinical faculty from distributed sites apply for physician leadership positions (incl. Program Director, member of Academic Council, NOSM Governance Committees) | # of faculty applying for physician leadership positions<br><br># of faculty serving in physician leadership positions | Increased faculty engagement from distributed sites |

| A. Medical Education & Program Development (continued) | | | | | |
|---|---|---|---|---|---|
| **Goals** | **Preconditions** | **Strategies** | **Activities (Processes)** | **Outputs** | **Outcomes** |
| A6. Improve recognition of excellence in clinical teaching | Administrative support | Encourage LEG Leadership/ Administration to take an active role in ensuring excellence is rewarded<br><br>Improve documentation of excellence | Identify opportunities and facilitate the preparation of award nominations | # nomination packages prepared (provincial, national)<br><br># of awards related to clinical teaching | NOSM reputation<br><br>Peer recognition<br><br>Increased satisfaction |

<table>
<tr><th colspan="6">B. Professional Development (CME, Faculty Development, Leadership Development)</th></tr>
<tr><th>Goals</th><th>Preconditions</th><th>Strategies</th><th>Activities (Processes)</th><th>Outputs</th><th>Outcomes</th></tr>
<tr><td rowspan="2">B1. Increase the local availability of accredited CME</td><td>Number of physicians meets or exceeds approved / desired complement<br><br>Access to research support services<br><br>Availability of funding to support time for preparation and delivery of course</td><td>Increase the number of CME opportunities developed and led by LEG members</td><td>Develop and implement an accredited training course or program</td><td>CME accreditation obtained<br><br>Course delivered<br><br>Course objectives met<br><br>New / renewed certifications</td><td rowspan="2">Enhanced knowledge/skill in the community<br><br>Increased recognition of faculty, LEG<br><br>Increased satisfaction of medical/health community, retention of health professionals</td></tr>
<tr><td>Funds to support local delivery of courses</td><td>Enable LEGs to sponsor delivery of CME locally<br><br>LEG members identify CME requirements</td><td>Sponsorship of CME courses in the community (incl. facilitating NOSM webcast/webinars)</td><td>Courses sponsored<br><br>Attendance at CME course, course objectives met<br><br>New / renewed certifications<br><br>Member-identified CME goals are met</td></tr>
</table>

| **B Professional Development (CME, Faculty Development, Leadership Development)(continued)** | | | | | |
|---|---|---|---|---|---|
| **Goals** | **Preconditions** | **Strategies** | **Activities (Processes)** | **Outputs** | **Outcomes** |
| B2. Increase participation in faculty development (teaching and preceptoring) | Dedicated funding to support participation<br><br>Availability/accessibility of faculty development events | Provide financial support for and recognition of faculty development | Participation in faculty development events (NOSM, external)<br><br>Organization of local PD as a LEG Activity | Participation at FD conferences/ Workshops<br><br>Implementation of PBSD:ED program (or similar) in the community<br><br>Sponsorship of an accredited FD event in the community | Improvements in teaching/mentoring of learners<br><br>Faculty promotion |
| B3. Strengthen mentoring by and for clinical faculty | Experienced clinical faculty with mentoring skills<br><br>Support for mentoring networks/network infrastructure | Encourage development of mentorship plan, skills<br><br>Support multiple models of mentorship (local, virtual, distributed network) | Develop a LEG mentorship plan<br><br>Facilitate participation in virtual/distributed mentoring network | Participation in mentoring training<br><br>% of members with one or more local mentors<br><br>% participating in distance mentoring (mentor-mentee, bidirectional) | Retention of clinical preceptors<br><br>Improvements in precepting skills and abilities<br><br>Increased learner satisfaction, outcomes |
| B4. Increase participation in Leadership Development training | Dedicated funding to support participation<br><br>Opportunities are available/accessible | Provide financial support for, and reward faculty development<br><br>Encourage LEGs to conduct leadership development activities as a group | Participation in leadership training program (individual, group level)<br><br>Sponsoring leadership development as a LEG activity | % of members who have participated in a leadership development course<br><br># of leadership training sessions organized by LEGs | Increased effectiveness at motivating, delegating<br><br>Reduced burn-out, turnover |

**APPENDIX C**

PROGRAM LOGIC MODEL – 12 December 2014

| C. Scholarship, Research & Innovation (SRI) | | | | | |
|---|---|---|---|---|---|
| **Goals** | **Preconditions** | **Strategies** | **Activities (Processes)** | **Outputs** | **Outcomes** |
| C1. Develop research capacity | Funds for research staff, professional development, or contracting | Increase level of in-house research support, expertise and grantsmanship<br><br>and/or<br><br>Identify external research partners/ collaborators | Hire of research director, research support staff, and/or agreement established with external research partners<br><br>Participation in research–focused professional development activities (e.g. grantsmanship training) | Research director, research support staff hired<br><br>Partnerships/ collaborations established with external researchers<br><br>Research proposals developed | Improved rate of successful grant applications (PI, co-applicant, collaborator) |
| C2. Develop and participate in LEG research networks (practice-based research networks) | Access to network support funds<br><br>Access to research support services | Encourage research collaboration among LEGs | Participation in a research collaboration with other LEGs | Meetings of (potential) network partners held<br><br># grants awarded or shared by multiple LEGs | Increase in KTE between LEG members<br><br>Research conducted at larger scale, greater potential impact<br><br>Additional research funding obtained as a result of collaboration |

| **C. Scholarship, Research & Innovation (SRI) (continued)** | | | | | |
|---|---|---|---|---|---|
| **Goals** | **Preconditions** | **Strategies** | **Activities (Processes)** | **Outputs** | **Outcomes** |
| C3. Increase in regional research collaboration (pan-Northern, collaboration of Sudbury/Thunder Bay researchers with LEGs) | Policy and financial support for a development of a “distributed research” model<br><br>Resources to develop and sustain researcher / KTE networks | Develop a vision of “distributed research” for Northern Ontario, including bench-to-bedside clinical/ translational research<br><br>Recognize the value and status of community-based collaborative research and the research collaborator role | Participation in the development of a distributed research model, networks and initiatives<br><br>Participation in collaborative research | Participation in/contribution to the development of a model<br><br>Number of multisite research projects the LEG is involved with<br><br>Number of researchers and collaborators involved in multisite projects | Increased exposure to and involvement of clinical faculty in large-scale research<br><br>Progress toward social accountability in Research Domain |
| C4. Increase in documented clinical innovation / quality improvement activity | Number of physicians meets or exceeds approved / desired complement<br><br>Provide funding for clinical innovation | Emphasize importance of KTE for clinical innovation grants | Develop applications for innovation fund grants, include KTE component<br><br>Document/collect data on change resulting from innovation | # of Innovation Grants Received<br><br># of Projects Completed<br><br>Results of project shared with other LEGs (report, presentation) | Improved quality of care, services, health status, patient satisfaction, medical education<br><br>Results of innovation disseminated (# of publications, presentations)<br><br>Innovation is recognized beyond NOSM (recognition, awards, replication of innovation, patents / IP protection) |

| C. Scholarship, Research & Innovation (SRI) (continued) | | | | | |
|---|---|---|---|---|---|
| **Goals** | **Preconditions** | **Strategies** | **Activities (Processes)** | **Outputs** | **Outcomes** |
| C5. Conduct community-engaged scholarship (CES) | Number of physicians meets or exceeds approved / desired complement<br><br>Policy support for CES, including recognition of CES activity in faculty promotion | Generate policy support and reward structure for non-traditional research activity | Engage with community to understand scholarship/ research needs and priorities<br><br>Conduct research and other scholarly activities in partnership with community groups | Community consultations, needs assessment activities<br><br>CES activities and processes (documented)<br><br>Applied research products (innovative programs, policies, training materials)<br><br>Community dissemination products (community forums/presentations, local media reports websites) | Achievement of community-defined goals, outcomes<br><br>Increases in community capacity<br><br>Sustainability of program/ Improvements<br><br>KTE, publications, presentations, |
| C6. Increase amount of externally funded research being conducted by clinical faculty | Number of physicians meets or exceeds approved/desired complement<br><br>Access to research support services | Develop a LEG research plan and/or research support structure<br><br>Maximize use of resources at NOSM and area universities, and/or participate in research/grants writing professional development | Prepare and submit fundable research grant applications (other than NOAMA/AFP Innovation grants)<br><br>Implementation and completion of research projects | # of submissions,<br># of grants awarded<br><br>Value of grants awarded<br><br># Research projects (ongoing, completed) | Increased aggregate value of research grants<br><br>Increased number of publications, presentations<br><br>Awards and recognition for research |

**APPENDIX C**

PROGRAM LOGIC MODEL – 12 December 2014

| **D. Recruitment, Retention, and Community Engagement (May not be appropriate for all LEGs)** | | | | | |
|---|---|---|---|---|---|
| **Goals** | **Preconditions** | **Strategies** | **Activities (Processes)** | **Outputs** | **Outcomes** |
| D1. Increase or maintain physician complement at approved level or locally-determined level | Access to / support for recruiter | Promote LEG benefits, opportunities as part of recruitment strategy | LEG participation in physician recruitment | Physician vacancies filled within reasonable time<br><br>Maintain or increase number of preceptors, clinical placements | Physicians with more time and energy for program development, research, and innovation<br><br>Increased satisfaction and retention |
| D2. Retain learners into practice | Staff dedicated to supporting learners | Positive rural/northern learning experience | Enrichment activities, community integration | Increased learner satisfaction<br><br>Increased learner in interest in / demand for placements with LEG | Learners continue or return to establish practice |
| D3. Contribute to local partnerships & initiatives to address identified needs of the community | Community partners, understanding of local needs | Encourage community service through contributions of leadership and expertise | Participate in local/regional health initiatives | Chair/committee participation<br><br>Outcomes, accomplishments of community/regional initiatives | Greater physician and community satisfaction with local health services |

| **E. LEG Administration** | | | | | |
|---|---|---|---|---|---|
| **Goals** | **Preconditions** | **Strategies** | **Activities (Processes)** | **Outputs** | **Outcomes** |
| E1. Improve organization & reduce administrative burden on individual physicians | Sustainable funding<br>Effective administrative support<br>Effective communication & collaboration between NOSM, LEG Administrator | Establish and implement an effective system to track and verify member activity | Implementation of effective system of tracking and verifying member activity | Documentation of member activities<br>Accurate and timely payments for clinical teaching, other remunerated LEG activity<br>Proportion of unreconciled to reconciled teaching payments | Greater satisfaction with clinical teaching<br>Satisfaction with LEG<br>Increase in proportion of eligible physicians who are LEG members<br>Increase in number/proportion of clinical faculty |
| E2. Ensure effective, fair, and transparent governance | (Additional assistance from NOAMA – Individual LEG web pages?)<br>Governance guidelines<br>Effective administrative and tech support | Improve two-way communication with & among members (e.g. support online / web-based communication platforms | Develop and maintain online LEG platform (website) other communication tools | Online/virtual presence (through NOAMA website or other website)<br>Other online tools (Discussion boards, archive of teaching materials)<br>LEG documents available (governance agreement, board/committee leadership, member list, meeting minutes)<br>Quarterly updates (at a minimum) | Increased awareness of all LEG activity among members<br>Increased interaction among members, with Board<br>Members' satisfaction with LEG, perceptions of fairness, transparency<br>Website serves as accessible platform for knowledge management & organizational memory |

| **E. LEG Administration (continued)** | | | | | |
|---|---|---|---|---|---|
| **Goals** | **Preconditions** | **Strategies** | **Activities (Processes)** | **Outputs** | **Outcomes** |
| E3. Ensure effective, fair, and transparent governance (continued from above) | (continued) | Effective delegation and active contribution of members | LEG members actively contribute to management of LEG activity | Activities led by members other than the LEG Lead<br><br>Establishment of active committees | Members' satisfaction with LEG, perceptions of fairness, transparency<br><br>Stability and sustainability of LEG membership |
| E4. Ensure continuity and sustainability of LEG through effective governance | Guidance from NOAMA | Succession planning for LEG Board and | Conduct annual meetings and reviews of succession plans,<br><br>documentation of Board, Committee business | Board meetings held as planned (per governance agreement)<br><br>General membership meetings held annually<br><br>Succession plan developed and kept up-to-date | LEG continues to function effectively |
| | | Develop a knowledge management plan to support institutional memory | Development and implementation of a knowledge management plan | LEG meetings, internal documentation, communications, and reports are documented and archived | |

**APPENDIX C**

PROGRAM LOGIC MODEL – 12 December 2014

| E. LEG Administration (continued) | | | | | |
|---|---|---|---|---|---|
| **Goals** | **Preconditions** | **Strategies** | **Activities (Processes)** | **Outputs** | **Outcomes** |
| E5. Support the development of academic culture | Interest among members<br><br>Acceptability per Governance agreements | Obtain and allocate resources for professional development, scholarship activities | Track expenditures by type of activity | % of NOAMA funds received spent on<br>- Clinical teaching<br>- Professional development<br>- Scholarship | Increase in overall academic activity of clinical faculty |
| E6. Engage in peer support, collaboration and networking with other LEGs | Support from NOAMA; possible use of NOAMA website as platform for exchange | Identify effective mechanisms to facilitate networking among LEGs | Lead or participate in LEG peer networking/KTE activities | Participation in LEG Lead meetings<br><br>Establish/moderate a virtual network or electronic discussion board for LEGs<br><br>Collaborative activity with other LEG(s)<br><br>Participation of other LEGs' members in CEPD activity | Indicators of horizontal communication<br><br>Increased interaction among LEGs (exchange of information/ innovations, problems solving) |