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2013 04 15

Dr. Noreen Golfman,
Dean of Record,
Dean of the School of Graduate Studies,
Memorial University of Newfoundland

Dear Dr. Golfman, *Noreen,*

On behalf of the Panel for the Academic Program Review for the Medical Graduate Programs of the Community Health and Humanities Division and the Clinical Epidemiology Unit, Faculty of Medicine, I am very pleased to submit our report.

I am grateful to my colleagues and team members: Dr. Jacqueline Gahagan, Dr. Brenda Wilson and Dr. Stephen Tomblin who have greatly contributed to the site visit and the writing of the report. It has been a true collaborative team effort.

On behalf of the panel, I also would like to express my appreciation to Ms Kim Myrick of the Centre for Institutional Analysis and Planning for the smooth organization of this process and the support and assistance provided throughout this endeavor.

I hope that our report will be helpful for the reviewed units to achieve their goals and vision.

Sincerely,

A handwritten signature in cursive script, appearing to read "Lan Gien".

Lan Gien, PhD.
Panel Chair

Encl.

Cc: Dr. Jacqueline Gahagan,
Dr. Brenda Wilson
Dr. Stephen Tomblin
Dr. Doreen Neville, Associate Vice-President (Academic), Memorial University.
Ms Kim Myrick

REPORT OF THE ACADEMIC PROGRAM REVIEW
MEDICAL GRADUATE PROGRAMS
Community Health/Humanities and Clinical Epidemiology
FACULTY of MEDICINE
MEMORIAL UNIVERSITY of NEWFOUNDLAND

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INTRODUCTION

The division of **Community Health/Humanities (CHH)** and the **Clinical Epidemiology (CE) Unit** of the Faculty of Medicine, Memorial University are two separate units, functioning independently. Each has its unique program, faculty members, separate courses, different admission requirements, student progression and graduation. While the **Community Health/Humanities** is one of the three main divisions of the faculty of Medicine (1/ BioMedical Sciences, 2/ Clinical Disciplines and 3/ Community Health/Humanities), the Clinical Epidemiology Unit is listed under the division of Clinical Disciplines.

Both the CHH division and the CE unit are involved in teaching undergraduate and graduate programs. In the latter, the CHH offers several programs: 1/ Graduate diploma, MSc (Med) and PhD (Med) Community Health (CH), 2 /Master of Public Health (MPH) and 3/ MSc (Med) Applied Health Services Research (APSR). Each area of concentration has a Program Coordinator who reports to the Associate Dean of the Division.

The CE Unit offers graduate diploma, MSc (Med) and PhD (Med) in Clinical Epidemiology.

In all cases, the expectations for completion of programs are 1-2 years for diploma, 1 year for MPH, 2 years for MSc, and 3-7 years for PhD.

The Associate Dean of the CHH division and the Director of the CE unit report to the Assistant Dean of Graduate Studies, a position that reports to the Associate Dean for Graduate Programs and Research.

This Academic Program Review (APR) focuses on the **graduate programs** of the CHH Division and the CE Unit respectively. Its purposes include¹:

- To encourage academic planning, innovation and improvement in units and programs, in alignment with the university's mission and strategic plan
- To avail of fresh perspectives from colleagues outside Memorial
- To provide an occasion for units and programs to identify new opportunities and find ways to pursue them
- To evaluate the quality, success, and role of academic of academic units and programs in the fulfillment of their own and the university's mission and strategic goals.

The APR Panel conducted an on-site visit on March 14th and 15th, 2013. During the two-day visit, the Panel met with six faculty members, some support staff, the administrative group (Associate Deans, Assistant Dean and some coordinators) and graduate students who were at different stages of study in various programs. In addition, the Panel also met with the Dean of the School of Graduate Studies and the Vice Dean of the Faculty of Medicine. This report was

formulated based on the review of the self-study documents, curricula vitae prepared by the faculty, information on the websites, interviews with various members during the visit as well as the examination of additional materials provided on-site.

The major recurring theme during the visit was that both units have undergone considerable growth and expansion during the past four years. This growth was more significant for the CHH division where there was an expansion of program specialties, and number faculty members. There was also higher numbers of both applicants and students admitted to programs, without corresponding growth in resources. This may pose problems in the future, especially in the current period of declining resources.

Overall, the panel is of the opinion that the programs are of comparable quality to similar programs found in other Canadian universities. They enjoy strong support from the Dean of Medicine, Dean of the School of Graduate Studies, the health care institution and the provincial government. Faculty and students are proud of their respective programs. They convey a sense of cohesiveness and intellectual community, and have strong linkages with the external community.

This report summarizes the programs' strengths and key areas/issues needing further attention and suggests recommendations for program improvement. While some issues identified are relevant to all programs, others are more pertinent to certain specific programs. The report's content is organized according to the format suggested in the Revised Procedures for the Review of Units and Programs¹ approved by the Senate of Memorial University and included the following sections.

ALIGNMENT WITH THE STRATEGIC PLAN

- What are the strategic objectives of the unit/program?
- To what extent are stated unit/program objectives being met? What is the evidence for these achievements?
- How does the unit/program support the mission and objectives of the university and other programs within the University? i.e. alignment with the University Strategic |Plan.
- How are the efforts of the unit/program focused upon achieving the level of excellence (provincial, national, international) to which the unit/program aspires?

The ultimate goal of the programs in both CHH and CE is to **promote health**, but they use slightly different approaches to achieving that goal. The strategic objectives of the CHH division indicate that its mission is *“to promote health and improve the quality of life in society by developing an understanding of factors that contribute to the health and illness, building capacity to create change, create new knowledge, sharing and engaging in research in and with*

the community and serving as a resource for the community.”² (p. 20), while the mission of the CE unit “is to become a recognized Centre of Excellence in teaching evidence-based medicine, graduating health professionals expert in clinical epidemiology and in conducting research that improves population health.”³ (p.1)

The above goal and mission statements are congruent with that of the Faculty of Medicine which is “*to enhance the health of the people of Newfoundland and Labrador by educating physicians and health researchers; promoting lifelong learning, conducting research...; engaging communities and the decision makers; and collaborating to apply the best available evidence in the formulation of policy and the organization and delivery of care*”³ (p.1)

The above strategic directions also address the three strategic frameworks adopted by Memorial University (MUN) in 2012: *Research, Teaching and Learning, and Public Engagement*.

There is clear evidence that unit/program objectives are being met. First, course content and sequences are designed to meet clearly state objectives. Second, there is evidence that most faculty members are actively engaged in teaching, research, community/ university services. These areas of activities are directly support by the mission/objectives of the university. The programs are in great demand, attracting a large number of highly qualified applicants for a limited number of seats. While most applicants are from Newfoundland, others are international or from other provinces. Such evidence indicates that these programs are relevant to the needs of the province, as well as the country. The increased student enrolment in these units provides strong evidence that MUN’s plan for expanding graduate student intake is working.

Recommendation: *no recommendation*

GRADUATE PROGRAMS

- How effective is the unit in performing its graduate teaching and supervision responsibilities?
- Is the research and scholarly productivity of the unit’s faculty appropriate to its graduate responsibilities?
- Are the graduate program’s admissions criteria appropriate?
- How successful are the unit’s graduate programs nationally and regionally in attracting qualified graduate students and placing graduate degree holders in professional employment?
- How competitive are the unit’s graduate programs nationally and regionally in attracting qualified graduate students and placing graduate degree holders in professional employment?

- Is the curriculum sufficiently comprehensive and rigorous compared to similar programs in Canada and elsewhere?
- Are the assessment standards consistent with those used in graduate programs in Canada and elsewhere?
- Is financial support for students at a level appropriate for the scope of graduate education activities desired within the unit?
- Does the university supply the library resources, computing and laboratory facilities and other resources necessary to support the graduate program?

As mentioned before, both CHH and CE have experienced strong growth during the last four years, following decisions made at annual faculty retreats. In the CHH Division, new courses were developed, two MPH programs (Population and Public Health stream and Nutrition and Dietetics stream) were approved, and a proposed Master's in Health Ethics has successfully undergone external review. In the doctoral program in CH, three streams of specialization were developed (epidemiology and biostatistics; applied health and policy research; social justice and equity in health). In addition, plans are currently underway to develop an additional Master's in Medical Geography and three MPH streams: aboriginal health, global health, and health informatics. The AHSR program's future is currently uncertain due to the end of funding. This program is offered through the Atlantic Regional Training Centre (ARTC), a collaboration between MUN, University of New Brunswick and the University of Prince Edward Island. If it is successful in applying for new funding, it may add a professional stream to complement the current research stream.

The increase in CHH programs results in about 50% increase in the student intake each year and 65% increase in the number of graduate course offerings each year. Although there has been an increase in faculty during the past three years (from 16 FT and three jointly appointed faculty positions to 19 FT and three jointly appointed faculty members; from 14 faculty members on other categories to 22 and one new search is underway), there has been no corresponding growth in space, student funding and other facilities.

Similarly, the CE Unit revised its strategic direction at the June, 2012 retreat and plans to expand the core curriculum to include courses in health analytics/informatics, data extraction and analysis of population health databases, epidemiology for genetics, and courses addressing ethical, legal, social issues and pharmaco-epidemiology. To develop new programs or courses, both the CE Unit and the CHH division followed the stringent process laid out by MUN's school of graduate studies.

Recommendation – 1/ Given the recent growth in programs and foci in both the CHH division and the CE unit, it may be important and timely to reassess the growth to take into account

limited resources, to take stock of how these various innovations may or may not 'fit' together as a coherent whole and to determine if the introduction of new programs are being driven by a shared, collective vision and demonstrated need (and capacity) rather than being driven by individual faculty members and their interests. It is necessary to do a need assessment, find ways to work together and avoid costly duplication.

Space has been identified as a major concern since the last APR. It is an issue not only in Medicine, but across campus as MUN experiences considerable growth. Space constraint has been considered as one of the factors that limits student enrolment due to small classroom size, and lack of office and research space for new faculty and staff. It is hope that when other units of the Faculty of Medicine move to the new building this year, CHH will get additional space that is needed. Currently, the CE unit has a definite plan to move into the new building while there is no certain indication that additional space will be available for the CHH division.

Recommendation - 2/ *The University should work together with the Faculty of Medicine to alleviate the space problem as soon as possible to accommodate the growth that the university is trying to achieve and to facilitate good teaching and research.*

In addition to space, **student funding** is another barrier for increase in enrolment. Currently, before application, an applicant is required to find a supervisor who agrees to support his or her research by providing space, and research funds. However, due to differences in the norms for research funding across the different disciplines represented in CHH, the standard "biomedical" student support model offers a poor fit for the CHH program. Since many faculty members do not have large external research funding (\$6000 required to finance students) this clearly limits the number of supervisors available to students seeking entry into the program. The remaining stipend of \$6000 or more for each student is supposed to be matched with \$6000 from the School of Graduate Studies or from the office of the Associate Dean Research and Graduate Studies. Furthermore, only full-time students who are doing the thesis route are eligible for funding. Student who cannot secure funding must revert to part-time status.

Recommendation – 3/ *The Dean of the School of Graduate studies and the Associate Dean Research and Graduate Studies of the Faculty of Medicine should develop an alternate model of funding graduate students in CHH and CE, which takes account of differences in disciplinary norms, so that highly qualified students are supported.*

Recommendation – 4/ *Students should be required to apply for external fellowships/awards for which they are eligible, including those offered by federal funding agencies (e.g., CIHR, SSHRC) or any other initiatives as they arise.*

The above application model may be workable for local and provincial applicants since they are well positioned to directly contact potential supervisor to discuss and agree on the supervisory

sponsorship. It is, however, more difficult for international applicants, because of distance and unfamiliarity with faculty and related processes. Clearly, they may not know the available faculty members and their area of research interest. As a result, it has been very difficult for international applicants to arrange supervision and funding support before admission. For that reason, the number of international students in CHH division is low; seats allocated for international students have not always been filled. Although the faculty are cognizant of MUN's strategic goal of recruiting larger number of international students, there have been a number of challenges putting this into practice.

Recommendation – 5/ Pre admission requirements of supervisory commitment for international students should be modified, so that they have equal chance for admission, hence achieving the units' goal of inclusiveness, diversity and MUN's institutional goal of larger intake of international students.

Graduate programs' quality: Admission to the programs is competitive. Currently, the programs attract a large application pool. For example, in 2013 the MPH program received over 200 applicants for 20 available seats, attesting to the need for the program and its reputation. The process and basic criteria for admission to the programs are specified by the School of Graduate Studies; however each program can add its specific requirements.

The MPH curriculum was designed to meet the core competencies identified by the Pan-Canadian Public Health Network, including population health assessment, health surveillance, disease and injury prevention and health promotion. These competencies are addressed in the courses' content and are integrated in the tools used in the evaluation of courses and the program by students and their employers post-graduation. In addition, the MPH program keeps track of student employment following program completion. These evaluation and monitoring processes, even with a relatively small sample, provide evidence that the MPH programs are of comparable quality to similar programs elsewhere in Canada.

The practicum in the MPH program has been highly valued by the students. However, in the current fiscal climate, it has been increasingly difficult to arrange placements. With increasing number of students coupled with an unpredictable economic climate where hosting agencies/organizations may no longer be in a position to partner, there could be a need for new strategies.

While the quality and rigor of other graduate programs of CHH and CE are not being questioned, the committee found little objective evidence upon which to base a formal assessment. Except for the MPH, programs in the CHH division and CE unit have no record of students' attrition rate, withdrawal from the program, length of program completion, success rate in competition for external awards, change of program or change from full-time to part-time status and vice versa. There has been no tracking of graduates' careers and no evidence of course and program evaluation by students and/or by their employers until recently (2011). Without these objective

indicators, it is difficult to gauge the degree of excellence of the programs and to compare, with confidence, the quality of MUN's programs with other similar programs in Canada and beyond.

Recommendation – 6/ A database should be developed and implemented for annual monitoring of the quality of the programs including admission, enrolment, attrition rate, student composition according to sex, visible minority, educational background, students' changes of program and enrolment status, length of program completion, success rate in student competition for external awards and employment rate following graduation.

Recommendation – 7/ There is a need to identify ways in which the practicum component of the MPH can be made sustainable and insulated from changes in the circumstances in the hosting agencies/organizations.

In general, the students are satisfied with the quality of the programs; however they identified some overlap of content among various courses, incongruence between description of some courses on the website and their "true" content. In the CE program, in particular, students mentioned overlap of core courses' content and that the content of both courses MED 6250 and MED 6262 need to be restructured (e.g., too basic, inadequate in terms of level of detail), with over emphasis on randomized control trial (RCT) research design. They expressed the need to learn more about other research methods and would welcome a course offering hands-on data analysis using SPSS and/or SAS. These issues were also raised in the CE strategic planning session in June 2012 and a plan of action was developed to address them. The current status of the latter is not known.

Recommendation – 8/ A plan should be implemented for regular course and program evaluation by students and/or their employer with the findings being fed back into course and program revision and redevelopment.

The library resources, computing and laboratories space and facilities appear adequate. However, students identified the need for having more SPSS and SAS software programs installed on the computers so that they can practice data analysis. Currently there are only few (three or five) SAS programs available which is grossly inadequate for the number of students who need it. Students also expressed the need for a stand-alone course in hands-on data analysis to increase their confidence in this area.

Recommendation – 9/ More SPSS and/or SAS programs should be available for practice and a course in applied data analysis using the above softwares should be developed and included in the CHH and CE curriculum.

FACULTY RESEARCH AND SCHOLARSHIP

- Are the research, creative activity and scholarship of the faculty appropriate for providing first-rate academic programs?
- Are research facilities and library resources sufficiently supportive of faculty research?
- Are faculty generating external funding up to their full potential?
- What role are faculty playing in the University's research centers, interdisciplinary research groups and external partnerships?

According to the Triennial Report (2008-2011), CHH has forty five faculty members, across the categories of 'regular' faculty, clinical, joint, adjunct, and professional associates. Many non-clinical disciplines are represented, for example epidemiology, statistics, social and behavioural sciences, and ethics (this list is not exhaustive). Clinical disciplines include public health and preventive medicine, family medicine, laboratory medicine, counselling and nursing. Two members hold Canada Research Chairs, in Health Promotion and Community Development, and in Healthy Aging (cross appointed with another unit). There is a fairly balanced spread of members across the academic ranks. The faculty complement is completed by two professors emeriti and three honorary research professors. As judged by the available documentation, the longest serving faculty member has been with the division since 1992 and the most recent appointment was made in 2011.

Collectively, CHH faculty members' research interests are diverse, addressing questions which might loosely be described as concerning the health and wellbeing of communities, populations and 'publics' (defined in many ways), health systems organisation and delivery, health promotion, and different aspects of health ethics. On the basis of information provided in the Triennial report and faculty curriculum vitae, it appears that faculty members have secured research funding support from the research councils (predominantly CIHR), other national peer-reviewed funding entities (e.g., the Public Health Agency of Canada), regional and provincial bodies (e.g., ACOA/Atlantic Innovation Fund) and local and internal sources. We have the impression that the Triennial Report may under-represent the funding status of the unit's faculty, noting that it does not include some awards listed in curricula vitae presented in the Self Study.

Most faculty members have been active in publishing in reputable journals, presenting research results at local, regional, national and international conferences. On closer scrutiny of faculty curricula vitae, there was some confusion between refereed and non-refereed publications and sometimes, presentations were listed as publications.

In reviewing the level of scholarship, the panel took account of the fact that norms and expectations vary across disciplines. The panel concluded that, in general, the level of scholarly activity and productivity was consistent with disciplinary expectations and each member's academic rank. We noted our impression under "Alignment with the Strategic Plan" that the unit's overall focus appears to be on achieving a national level of excellence, while also

maintaining an important regional and provincial commitment. Based on the evidence available, we judge that the unit generally achieves this level of aspiration. There is a 'mixed economy' of research activities and achievements, with nationally relevant research complemented by a very strong flavour of locally- and regionally-oriented work and some strands of enquiry addressing questions of direct global relevance.

With respect to research, the panel sought evidence of cross-disciplinary collaboration within the department by reviewing the investigators listed for research funding awards and the author lists for their publications. We noted that most members appeared to collaborate with individuals outside the CHH/CE group, with a smaller group apparently collaborating with other CHH/CE members.

The CE unit has three full-time faculty and one half-time joint appointed faculty, in addition to a number of individuals with clinical/cross/adjunct and joint academic appointments. The majority of the CE faculty members are clinicians, so the group's research foci are more clinically oriented, using more quantitative methods. Despite having busy clinical practice, some members of the unit have been quite productive in research and scholarship publications and garnering external funding.

We noted that in both CHH and CE units, some faculty members have been recognized for their teaching expertise and research excellence. In the CE unit, two faculty members have been awarded the title of University Research Professor (URP), the highest recognition for research excellence bestowed by MUN. These same individuals have also received notable kudos from agencies, organizations outside the university.

Research facilities, staff and computer support and library resources seem to be sufficiently supportive of faculty research. The availability of staff members to assist with proposal writing is considered very helpful.

Although there are healthy research activities in the units assessed, there was no database available to assess the change/growth in funding application and success rate each year as well as to determine the percentage of external versus internal research funding by program area, research area.

Recommendation – 10/ Annual databases should be kept in the units to disaggregate research funding in a manner that makes this information more readily accessible for the purposes of determining trends in funding over time.

Despite having opportunities for truly interdisciplinary research, there appears to be more of a disciplinary "siloing" of research expertise between and within the units, based largely in either clinical/quantitatively oriented research or community health/including more qualitative methodologies. Both faculty and students expressed the need for research using mixed method

approaches, drawing from collaboration between the qualitative group and quantitative one within and among the units so that synergy of both groups' strengths is maximised.

The longstanding Health Research Unit is also seen as strength in CHH in that it has allowed for the emergence of health research ideas to flow from community as a means of addressing community-based, pressing health questions, issues and methodologies. With the recent development of the MHE program, there will be additional opportunities for interdisciplinary research within CHH and CE, within clinical programs and across the province in working with the various health authorities.

Recommendation – 11/ Both qualitative and quantitative research methods should be considered of equal importance and should be equally covered in course content, research workshops and used as appropriate in conducting research, theses and dissertations to foster the collaboration between two groups.

FACULTY AND STAFF

- How well are faculty and staff resources being used?
- Are promotion and tenure policies appropriate to the unit's mission and aspirations?
- How successful is the unit in implementing University employment equity policies?
- Are faculty and staff workloads equitable and appropriate to the unit's mission?
- Are administrative decisions made and administrative tasks carried out efficiently and effectively?
- How does the unit rank among those in similar institutions regarding research productivity and quality, external funding, academic programs and teaching loads?

Faculty and staff are appropriately used. Faculty are assigned to teach courses which match their areas of expertise. Some courses were taught by several faculty members, depending on the topic covered and faculty expertise. They also have the freedom to pursue research in their areas of expertise and interest. For promotion and tenure of faculty in the CHH program, the policies and procedures specified in the Memorial University of Newfoundland Faculty Association (MUNFA) Collective Agreement are used. Most faculty teaching in the clinical epidemiology program are clinicians who belong to the non-bargaining unit. The latter, therefore, followed a different policy specifically designed suitable to their roles, responsibilities and expectations.

The staff complement in the CHH is adequate. It consists of 13 members (six administrative support staff, two academic coordinators and three research staff). The CE unit only has one full-time member of staff, supported by staff of clinical faculty members.

Although faculty and staff hiring is based on the division's needs, there is evidence that university employment equity policies have also been implemented. Faculty with a variety of cultural and ethnic backgrounds are present in the unit.

Faculty work load: The review panel received conflicting comments regarding faculty workload. While some faculty members consider the workload is reasonable, others mentioned that due to increase in the number of students admitted, senior faculty members are expected to assume the primary supervisor role for more students and at the same time mentor the junior faculty in this process, hence the workload for some is heavy. As mentioned, some of the courses (especially in the CE unit) are taught by a team of faculty for best use of their expertise. However, students reported difficulties in contacting professors when several are involved in teaching a course and there is a lack of coordination in such courses. In addition, it is difficult to measure the total workload of each faculty member in team teaching as well as to evaluate the teacher effectiveness in developing and teaching a stand-alone course. The latter information is needed to develop a teaching dossier needed for promotion and tenure assessment.

Recommendation – 12/ *A work load measurement should be developed and used to avoid uneven distribution of workload. Where this is feasible, and the desire to do so is expressed, each faculty member should have the opportunity to teach a stand-alone course so that his or her teaching effectiveness can be evaluated. Alternatively, methods to evaluate teaching effectiveness in team-taught course should be developed.*

The faculty and staff resources seem adequate to implement current programs. However, in some areas, faculty resource is not adequate for program sustainability. For example, the MPH program with specialization in Nutrition/Dietetics has only one person qualified to teach and supervise the MPH students in this area. To cope with impending growth, the panel is in agreement with CHH's plan to hire additional faculty members. Similarly, to meet the growth of the CE program decided at the strategic planning session in June 2012, the CE unit will need to recruit more faculty or share resources/collaborate with other groups such as CHH and the School of Pharmacy. As such, interdisciplinary collaboration will also be fostered.

COMMUNITY SERVICE

- Is the unit fulfilling opportunities to serve the community?
- Is the unit, where appropriate, effectively introducing students to professional community service opportunities?

The review panel is in agreement with the self-study report that community service is the core value of the CHH division. Every faculty member is active in providing services to several organizations: committee work in the division, the Faculty of Medicine, the University and/or the community at large at the local, provincial, national and international levels, both in the

academic and non-academic context. Furthermore, the nature of the educational experience of some CHH programs requires integration of learning in the classroom with practice experiences in the community settings. It is therefore necessary that the CHH division works hard to maintain the positive connections with the community so that students can benefit from the real work practice experiences.

In addition, the Health Research Unit of the CHH is providing valuable service to the community by conducting research on issues identified by the community to provide hard evidence for shaping programs and/or strategies to deal with the issues.

In the CE unit, faculty members are also expected to contribute service at the divisional, university and/or larger community level. Many are active in collaboration with the public and private sectors, in alignment with MUN's strategic goal of public engagement.

No recommendation

UNIVERSITY CITIZENSHIP

- Does the university effectively reinforce the goals of other units?
- Do its members encourage and contribute to the interdisciplinary activities?

There is clear evidence that CHH and CE are active citizens within the university. While it is difficult to know to what extent the units effectively reinforce the goals of other units, there is evidence that there is a great deal of interaction across systems. In the area of both teaching and research, members have encouraged and contributed to interdisciplinary activities. For example, there are partnerships with Geography, Economics, Political Science, Eastern Health, and these involve both teaching and research. There is also a tradition of working with other jurisdictions/professions; for example, the Atlantic Regional Training Centre promotes interdisciplinary links important to both teaching and research. In the area of Public Health, the MPH is connected with similar programs across the country and there are common standards/competencies established. There are other examples of such linkages, and drivers for these kinds of connections are both internal and external.

University citizenship is not a simple issue to address, since there are areas where there are common values, interests and institutional needs. On the other hand, there are also competing/diverse ideas, interests, and institutional traditions that need to be taken into account. There is often a tension between unity and diversity whether we are talking about professions, jurisdictions, or academic disciplines. For example, whether a new program should continue to be housed in another unit (say Geography) or merged into the existing unit is a difficult question. There are limited resources in every discipline and different perspectives on the mechanisms and processes required for organizing patterns of integration and interaction. From our brief glimpse of these kinds of issues, while collaboration is a good thing, there are different ideas on the form

these partnerships should take. Much of this effort to merge and work across units and promote common values has proven difficult in practice. Managing both unity and diversity within the same system is never easy, and since many of these activities occur on an incremental basis, it is difficult to say very much about the goal of effective integration based on a common set of citizen (community) values. Ideas about citizenship, rights, and obligations are shaped by contextual factors that are constantly changing.

No recommendation

UNIVERSITY SUPPORT

- Is the unit receiving adequate resources from its faculty and from the University at large?
- Are its facilities adequate?
- Is it adequately staffed
- Does the reporting structure ensure managerial efficiency and administrative effectiveness within the unit?

While there were challenges connected with space, human resources, technology, and so on, the committee was convinced that there was strong university support for these programs. From our perspective, resources have fuelled much growth and diversity across the systems we were asked to assess, and we think that if conditions change (which seems likely in the current context), there will need to be new forms of restructuring.

No recommendation

PLANS, GOALS, AND RESOURCE ALLOCATION

- Are the objectives of the unit appropriate to the mission of the university?
- Is the unit trying to do too much?
- If the unit has made requests for additional resources, which requests do the panel support and why?
- How might the unit's resources be redistributed to realize its goals and those of the university?

The goals of both CHH and CE are congruent with the mission of the University. The faculty are engaged in teaching, research, community service and public engagement. They also embrace and implement the growth policy supported by the university.

Strong growth in programs, student enrolment, and number of faculty has been experienced in the past four years. It may become the vulnerability if there is no support for additional physical space, faculty in some programs, computer software, etc. At the same time, the units need to consider more interdisciplinary collaboration as well as more collaboration between and within the units to create synergy and maximize their strengths.

SUMMARY OF ISSUES AND RECOMMENDATIONS

Despite growth and university support, we did hear that there were problems with respect to resources as cited in various sections of this report. **First**, space was a common problem across systems. **Second**, staffing levels, and challenges connected with having enough supervisors, were identified as a current problem that restricted student intake. **Third**, there were concerns raised about inconsistencies in funding formulas for part-time students and those registered in non-thesis programs (MPH). **Fourth**, lack of software and computers was seen as a challenge for teaching methods courses. However, these differences cannot be easily resolved without changes in university rules for thesis versus non-thesis students which are themselves based on eligibility criteria set by the federal research funding councils (which recognise research, but not professional training, despite many similarities), and part-time versus full time study. **Fifth**, the Atlantic Regional Training Centre is experiencing multiple challenges as a result of declining resources associated with the planned termination of CHSRF funding, and the withdrawal of Dalhousie University. **Sixth**, the hiring freezes imposed by the federal and provincial governments in response to the current economic climate have resulted in the loss of practicum placements for students in the MPH and MAHR programs. These present challenges for programs that need to be met through changes to graduate program requirements, energetic recruitment of further organizations to offer additional placement opportunities, and/or imaginative solutions to conceptualizing how to meet students' needs for practical public health or policy experience.

Growth and prosperity has been a common theme across all programs. There have been a number of new initiatives launched in response to new opportunities/incentives in recent years. MUN has been very supportive of these efforts to restructure and the units involved have taken full advantage of these opportunities to diversify. Since many of these initiatives have unfolded independently apparently without overall coordination, there may now be challenges connected with sustaining these over time. While there is evidence that there has been much support and encouragement to build new collaborative networks across systems, the fact that these have gone on in different areas of specialization and paid for out of different pots of money has created problems for governance. From our perspective, emphasis needs to be placed on inventing new governance structures necessary for bringing these different interests together and seeing if it might possible to find common objectives and solutions during a period of resource decline. While resources have been invested in promoting interdisciplinary activities, many of these

initiatives have occurred in different silos/contexts. As a result, they have become very powerful and popular and this has worked against investing in new integrative structures and processes. In a new era of restructuring, there is need to find new ways to bring different interests together, construct common objectives, and solve problems.

The following specific recommendations, therefore, are made to strengthen both graduate programs and teaching-learning environment of the CHH division and CE unit.

1/ Given the recent growth in programs and foci in both the CHH division and the CE unit, it may be important and timely to reassess the growth to take into account limited resources, to take stock of how these various innovations may or may not 'fit' together as a coherent whole and to determine if the introduction of new programs are being driven by a shared, collective vision and demonstrated need (and capacity) rather than being driven by individual faculty members and their interests. It is necessary to do a need assessment, find ways to work together and avoid costly duplication.

2/ The University should work together with the faculty of Medicine to alleviate the space problem as soon as possible to accommodate the growth that the university is trying to achieve and to facilitate good teaching and research.

3/ The Dean of the School of Graduate studies and the Associate Dean Research and Graduate Studies of the Faculty of Medicine should discuss and use an alternate model of funding graduate students in CHH and CE, so that highly qualified students are supported.

4/ Students should be required to apply for external fellowships/awards for which they are eligible, including those offered by federal funding agencies (e.g., CIHR, SSHRC) or any other initiatives as they arise.

5/ Pre admission requirements of supervisory commitment for international students should be modified, so that they have equal chance for admission, hence achieving the units' goal of inclusiveness, diversity and MUN's institutional goal of larger intake of international students.

6/ A database should be developed and implemented for annual monitoring of the quality of the programs including admission, enrolment, attrition rate, student composition according to sex, visible minority, educational background, students' changes of program and enrolment status, length of program completion, success rate in student competition for external awards and employment rate following graduation.

7/ There is a need for alternative way to provide the practicum component of the MPH program so that it is sustainable and insulated from changes in the circumstances in the hosting agencies/organizations.

8/ A plan should be implemented for regular course and program evaluation by students and/or their employer and the findings are used in course and program revision.

9/ More SPSS and/or SAS programs should be available for practice and a course in applied hand-on data analysis using the above soft-wares should be developed and included in the CHH and CE curriculum.

10/ Annual database should be kept in the units to disaggregate research funding in a manner that makes this information more readily accessible for the purposes of determining trends in funding over time.

11/ Both qualitative and quantitative research methods should be considered of equal importance and should be equally covered in course content, research workshops and used as appropriate in conducting research, theses and dissertations to foster the collaboration between two groups.

12/ A work load measurement should be developed and used to avoid uneven distribution of workload. Where this is feasible, and the desire to do so is expressed, each faculty member should have the opportunity to teach a stand-alone course so that his or her teaching effectiveness can be evaluated. Alternatively, methods to evaluate teaching effectiveness in team-taught course should be developed.

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