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Residency Snapshot: The Distributed Medical Education Experience at the University of British Columbia

January 18, 2011

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Introduction to the Document

The UBC post-graduate medicine programs use a distributed model to meet the capacity needs that are a result of a recent 2-fold increase in resident positions in BC; and to address the current misdistribution of physician human health resources. As a result, PAR-BC has a large portion of its constituents permanently based outside of Greater Vancouver and an even larger portion that will experience part of their residency training in distributed sites. Now, more than ever, PAR-BC faces the challenge of engaging and promoting its mandate to residents dispersed across the province.

These challenges were highlighted to the PAR-BC Board of Directors (2009-2010) during contract negotiations through the council of program representatives (January, 2010). As follow-up, Distributed Medical Education (DME) was a topic of discussion at the June 23rd, 2010 board of directors meeting with the resolution to establish a Distributed Medical Education Committee (DMEC) that would help PAR-BC align itself with a distributed model. Invitations were sent out to all members of PAR-BC and a 17-member ad hoc committee was created (Appendix A - Terms of References and committee membership). This committee met several times, from Aug 2010 to October 2010, charged with 4 basic objectives: 1) clarify the "working language" for DME; 2) identify the strengths and challenges of DME across a spectrum of experiences; 3) ascertain how PAR-BC can better engage and support residents in DME; and 4) make recommendations to the PAR-BC Board of Directors. The report was presented to the PAR-BC board of directors on December 7th, 2010 and subsequently reviewed.

This report attempts to address these 4 objectives. Over the course of the discussions of the DMEC, it became apparent, that this document should be considered as a beginning to an ongoing relationship, engagement and discussions about DME and how it affects residents. This document is the beginning of a much broader endeavor.

Executive Summary

The UBC post-graduate medicine programs use a distributed model to meet the capacity needs that are a result of a recent 2-fold increase in resident positions in British Columbia (BC); and to address the misdistribution of physician human health resources. Almost every resident in BC will experience part of their residency training in distributed sites and PAR-BC now faces the challenge of promoting its mandate to residents dispersed across the province.

This report attempts to address 4 objectives: establish a working language for DME; investigate the current state of affairs of DME at UBC and PAR-BC; elicit the strengths and challenges of DME; and discuss how PAR-BC can better support residents during their DME experience.

Defining Distributed Medical Education

The Association of Faculties of Medicine of Canada (AFMC) state "DME encompasses a broad definition of activities. In undergraduate, postgraduate and continuing medical education, educational events and activities involve learners and teachers in multiple locations outside of the immediate classroom or clinical site" (2006).

The distributed medical education committee (DMEC) recommends consistency with the following terminology across residency programs, PAR-BC and provincial government: **Distributed**, **Distributed Medical Education**, **Distributed Academic Activities**, **Distributed Sites**, **Community Distributed Sites**, **Elective Distributed Sites** and **Home Base**.

In essence, all experiences outside of Greater Vancouver, by definition are considered DME, since the school is centrally administered by UBC from Vancouver. The definitions the DMEC establish center around the permanency of residents at a teaching site, the size of the teaching sites, the teaching site where the residency program is coordinated and where the resident will spend most of their time. This is a simplified way to reflect the true nature of the residency program, the spectrum of DME experiences, the distribution of resources and access to resources.

The Current State of Affairs - Distributed Medical Education & UBC

Three points were discussed that reflect how UBC deals with DME: transparency, accountability and the differences between RCPSC and CFPC residents.

Transparency issues are evident with the "interchangeable" language that defines DME. It has also been difficult to quantify the amount of time a resident spends at a distance because not all residency programs publish this information accurately. Lack of transparency further extends into the role of the resident in DME. Confusion also exists with accountability. With who does the ultimate responsibility for distributed medical education rest?

The lines of accountability in our case are blurred since it is the PAR-BC collective agreement, which the UBC post-graduate medicine programs are not signatories, that establishes expectations that can only be enforced through labor relations. In other words, it does not hold to account the UBC post-graduate programs, rather shifts the responsibility to the health authorities, which does not make sense because DME is an academic requirement.

Lastly, there exists differences in DME between RCPSC and CFPC programs. This is evident in the amount of time spent in DME and the settings of the DME experiences.

The Current State of Affairs - Distributed Medical Education & PAR-BC

PAR-BC has already strived to address some of the issues residents might face with DME. These include formal articles in the collective agreement, letters & memorandums of understanding, as well as, member outreach to distant teaching sites. However, residents still feel alienated/isolated, question the applicability of the current collective agreement to their residency experience and are unsure how to access current provisions for DME that PAR-BC has in place. There is much more PAR-BC can accomplish in a distributed setting.

Strengths and Challenges of DME

Overwhelmingly the committee agreed that residents enjoy living and learning at distributed sites, associate many benefits to their experiences and identify with the socially accountable undertones of training in these communities. Major strengths revolved around the following themes: autonomy & control; learning; social accountability; social; and the collective agreement.

Major challenges evoked the following themes: planning, organizing, integrating and personal accountability; isolation and alienation; interpersonal/interprofessional conflict; accommodations; financial burden; reliance on information technology; learning; collective agreement; and increased liability & risk exposure.

How Can PAR-BC Better Engage/Support Residents in DME

The DMEC outlined a few ways PAR-BC can better engage and support residents in their DME experiences. These are: advocacy for DME with post-graduate Deans, resident preparation, address the context of the collective agreement for DME, accountability for DME, facilitate networking amongst distributed residents and sites, mandate mandatory CMPA coverage and create a resident mentor program. This however, is not an exhaustive list and creative, innovative solutions should be sought and supported.

Establishing a working language for DME

Before any dialogue can begin or any report can be generated, definitions specific to DME in the context of the UBC residency programs must be established. The DMEC came up with a list of definitions that we used to guide our discussions and debates. It is our recommendation that these definitions be accepted by PAR-BC and discussed with the UBC post-graduate programs to establish a mutual, working language for DME in BC.

Defining Distributed Medical Education

DME falls under a broader category of distributed education or distance education. It is specific to medicine and includes clinical and academic requirements. In 2006, the Association of Faculties of Medicine of Canada (AFMC) surveyed undergraduate and postgraduate programs across Canada to summarize DME experiences. The consensus was "DME encompasses a broad definition of activities. In undergraduate, postgraduate and continuing medical education, educational events and activities involve learners and teachers in multiple locations outside of the immediate classroom or clinical site." Currently, this is the definition still being used by the AFMC.

All experiences outside of Greater Vancouver, by definition are considered DME, since the school is centrally administered by UBC from Vancouver. The definitions the DMEC establish center around the permanency of residents at a teaching site, the size of the teaching sites, the teaching site where the residency program is coordinated and where the resident will spend most of their time. This is a simplified way to reflect the true nature of the residency program, the spectrum of DME experiences, the distribution of resources and access to resources.

The AFMC (2006) definition highlights a number of issues that need to be refined into a usable definition for PAR-BC and its affiliates. First of all, the concept of "distributed" needs to be clarified. The DMEC discussed that "distributed" should refer to any training site outside of the University's teaching centre of Vancouver, since the UBC programs are centrally administered from Vancouver. This presents a question in itself, what should be considered outside of Vancouver, since some teaching sites within Vancouver require residents to commute great distances.

It has been proposed that a radius of 40km or more, with Vancouver General Hospital at the centre, be considered as the "benchmark" for DME (Community Rotation Reimbursement Protocol, 2008). This would consider the following hospitals as non-distributed sites: Lions Gate Hospital, Richmond General, Delta Hospital, Surrey Memorial, Burnaby General, Royal Columbian, Riverview, Eagle Ridge, St. Paul's Hospital, BC Woman's Hospital and BC Children's Hospital among others. Unfortunately, the 40km radius seems to be an arbitrary distance chosen without examining, what we consider, to be more important factors, which include distance and time travelled, the permanency of residents at a teaching site, the size

of the teaching sites, the teaching site where the residency program is coordinated and where the resident will spend most of their time. It has been equally argued that the aforementioned "Greater Vancouver" hospitals should be limited to St. Paul's Hospital, BC Woman's Hospital, BC Children's and Vancouver General Hospital.

Distance is not the sole factor that helps to define "distributed" but it is the most visible. The type of learning activities, which are broad, should also be weighed into this definition. These activities fall under two categories 1) academic and 2) clinical. Any clinical activities that are outside of Vancouver, regardless of where the resident spends most of their time, should be considered distributed. This includes the Victoria, Prince George and Kelowna sites, all rural and remote sites, as well as, sites such as Nanaimo, Terrace, Dawson Creek and Fort St-John where residents are permanently located. Academic activities should also be considered distributed when it is not feasible for the resident to attend the academic event and alternative mediums to participate are used (ie videoconferencing). Distributed academic activities include, but are not limited to, teleconferencing, videoconferencing and e-learning tools.

There is also terminology that already exists when discussing DME. Satellite or Partner Campuses is a term often encountered in DME literature. We elected not to use these terms to define our distributed training locations since there are no true 'partner' campuses in BC. The DMEC discussed the use of more specific terms: 1) Distributed Sites, 2) Community Distributed Sites and 3) Elective Distributed Site. The greatest distinction between the three is whether a group of residents are permanently located at the teaching site, the size of the community and the resources available in the community. Home base is another term encountered and used freely amongst residents, faculty and administration. We believe there is consensus that a resident's home base is the location the program is coordinated from and where the resident spends most of their time, although how the post-graduate programs use this concept of 'home base' is unclear.

We have assumed that the UBC post-graduate program uses workable definitions for DME as well, since a large proportion of their residents are distributed. However, as will be discussed in more detail under "Current state of affairs – Distributed Medical Education and UBC" there is confusion, lack of transparency and lack of consensus as to what these definitions are. The DMEC came across several concepts that require clarification from UBC. These include: mandatory rural rotation, rural/remote, community rotations and longitudinal integrated residency.

Our committee has established the following definitions and we recommend they be adopted by PAR-BC:

Distributed: refers to any teaching site outside of the University's teaching centre in Greater Vancouver, since the UBC programs are centrally administered from Vancouver. This includes hospitals and physician's clinics, located outside of this

geographical area. Residents are distributed when they are engaged in any clinical or academic DME activities. The exact teaching sites remain to be established.

Distributed Medical Education: any clinical experience at a teaching site outside of Greater Vancouver and/or any academic event that requires the resident to travel or use alternative mediums, other than being in the immediate 'classroom', to attend.

Distributed Academic Activities: Any academic activity that is not undertaken in the current 'immediate classroom' or current clinical site at which the resident is located and/or any mandatory academic activities that requires the resident to travel. This also includes alternative mediums to access academic activities, which include: teleconferencing, videoconferencing and e-learning tools.

Distributed Sites: Any teaching site outside of Greater Vancouver that has a permanent core of residents at all times. For clarification, this includes Victoria, Kelowna, Prince George, Nanaimo, Chilliwack, Abbotsford, Fort St. John, Dawson Creek, Terrace and any other teaching site that has a group of permanent residents.

Community Distributed Sites: Any teaching site that is outside of Greater Vancouver, where residents rotate through sporadically and that does not have a permanent core of residents at all times. These sites include mostly the rural/remote teaching locations in smaller urban/larger rural communities. For example: Port McNeil, Cranbrook, Inuvik, etc …

Elective Distributed Sites: Includes clinical settings, outside of Greater Vancouver, that are not official UBC post-graduate teaching sites, where a resident may pursue elective training. For example: Kamloops, Tofino, etc ...

Home Base: The location where 1) the resident spends the majority of their time over the entire course of their entire residency and 2) where coordination of the residency program is undertaken. For example, Okanagan Rural Family Medicine program requires residents to spend their first year in Kelowna and the program is coordinated from this location as well (program coordinator and administrative staff are located in Kelowna). Kelowna is considered the home base for the Okanagan Rural Family Medicine program.

The following language is used by UBC when defining some of the requirements for DME and requires further clarification:

Mandatory Rural Rotation: a rotation which takes place at a distributed site, which is usually a community site in a rural/remote community. The resident is often one of few, if not the only learner in the community. The length of time varies depending on the program.

Rural/Remote: Rural/remote is a difficult term to define, "rurality" depends on multiple factors and fluctuates depending on the residency program. The committee believes this definition should be in keeping with the Subsidiary Agreement for Physicians in Rural Practice, which identifies the "rurality" of a community based on the community size, health care resources, proximity to a larger centre and geographical isolation (Subsidiary Agreement for Physicians in Rural Practice, 2001).

Community Rotation: a rotation that takes place at a distributed site away from the resident's home base, which is usually in a large rural or small urban community, but may also be in a rural/remote location. The resident is often one of few learners in the community. The length of time varies depending on the program.

Longitudinal Integrated Residency: in contrast to traditional block (vertical) residency, a longitudinal integrated residency engages residents in horizontal rotations with integrated, specialty training. For example, a family medicine resident in Fort St-John will, over 2 years, have a longitudinal family medicine experience, with a few days a week devoted to other specialties such as surgery or emergency medicine.

Recommendations

1. Advocate for a single language across all UBC post-graduate programs, PAR-BC and provincial government that defines DME.
2. Clarify what teaching sites are considered as part of "Greater Vancouver."
3. Obtain clarification from UBC post-graduate programs with respect to mandatory rural rotations, rural/remote, community rotation, longitudinal integrated residency and any other terminology used to define the DME experiences for their residents.

The Current State of Affairs

Distributed Medical Education & UBC

There are three flagrant points that were discussed and reinforced by multiple members of the committee that refer to how UBC deals with residents engaged in DME. These are transparency, accountability and the differences between CFPC and RCPSC resident's DME experiences.

Concerns with transparency were identified by the committee and confounded by problematic communication from the UBC post-graduate programs. Most, but not all programs (excluding mostly the highly sub-specialized programs), require residents to undertake all or some of their residency at a distance – this is well known. However, by the efforts of this committee, it has been difficult to quantify

the amount of time a resident spends at a distance (Appendix B – length of time by discipline spent at a distance as per CaRMS program information) because not all residency programs publish this information accurately nor is there agreement on what constitutes DME. For example, information obtained from CaRMS under program information (www.carms.ca), was found in a few cases (for example anesthesia, internal medicine) to under represent on how much time a resident spends at a distance and what exactly constitutes DME. This brings to question whether other programs are accurately informing residents of their DME commitments. Unfortunately, it was beyond this committee's resources to further pursue this question.

It has been echoed by the committee members that the issues of transparency extends into the basic role of the resident in DME and the role for DME in the grand scheme of the resident's training. One resident commented that the health authorities and their staff really have "no idea who we are and what we do." Another resident questions why some internal medicine residents are relocated to Victoria to undergo cardiology rotations, whilst other residents in the same program do their cardiology rotation in Vancouver. If DME is supposed to help solve the issue of misdistribution of human health resources, why are these residents not sent to communities that would benefit more from the presence of a resident and the possibility of retaining that resident as a physician?

Transparency issues were also evident with the "interchangeable" language used to define DME. As highlighted in the "Establishing a Working Language for Distributed Medical Education," the meaning of mandatory rural rotations, rural/remote, community rotation and longitudinal integrated residency needs clarification. A standardized set of definitions should be established and adopted across all sites.

Likewise, there exists a multitude of policies that govern how a residency program deals with its residents while distributed. For example, in family medicine there exists the "Travel Reimbursement for Rural Residents Special Considerations" which establishes the 'home base' for rural residents, which rotations are considered 'distributed' and how much the program is willing to reimburse residents for extra costs (Travel Reimbursement for Rural Residents Special Considerations, 2009). Unfortunately, this policy contains provisions that are considered unfair by some residents, inaccuracies and is in conflict with the PAR-BC collective agreement. Examples, include a cap on 22 weeks of funding at 1000$ / month for accommodations in a program that requires minimum 32 weeks of distributed rotations, a cap at 60$ / night for accommodations in Vancouver to attend mandatory academic events and inaccuracies that do not reflect the current state of affairs on how the program currently deals with the specifics of residents while distributed.

Confusion also exists with accountability. With who does the ultimate responsibility for DME rest? This raises legal questions, questions surrounding insurability and

liability, questions around resident resilience and well-being, as well as, academic/educational questions.

This is best illustrated by a recent external review of UBC's post-graduate medicine programs that identified resident well being, over-maximized capacity and lack of teaching resources at distributed sites as concerns (Marrie, Waldner & Whiteside, 2009). In addition, many faculties of medicine across Canada are faced with a provincial government that does not have any policies on funding for distributed medical education, that would like to or has already relinquished their responsibility for funding distributed medical education and have left the burden on the university itself (AFMC, 2007).

The lines of accountability in our case are blurred since it is the PAR-BC collective agreement, which the UBC post-graduate medicine programs are not signatories, that establishes expectations that can only be enforced through labor relations. In other words, it does not hold to account the UBC post-graduate programs, rather shifts the responsibility to the health authorities, which does not make sense – since they have no jurisdiction or interest in academic affairs. In essence, the health authorities are liable for the imposition of DME by UBC in post-graduate training.

Lines of accountability must be delineated. It is the opinion of the DMEC that this accountability should rest mostly with the UBC post-graduate medicine programs for the following reasons: it appears the funding flows from the provincial government to UBC and then to residents, UBC already has policies governing DME and UBC imposes program requirements on residents that engage them in DME. Practically, DME falls under academic requirements for successful completion of a residency program; the health authorities have little to no jurisdiction over academic matters and it is our understanding that they do not want jurisdiction over academic matters either.

This accountability must also be coordinated through the health authorities and shared with the communities to ensure standards are upheld. Finally, PAR-BC is responsible for residents engaged in DME as dictated by their mandate. These responsibilities stretch along the spectrum of the full resident experience (clinical, academic, resident well-being, etc …) while distributed.

Lastly, the DMEC wanted to point out that there exists fundamental differences, mainly between RCPSC and CFPC programs, with respect to DME. In Canada, the use of distributed teaching sites is most marked for family medicine, and more marked for rural family medicine (AFMC, 2007). It has been found that family medicine residents receive 50-100% of their education at a distance (AFMC, 2006) and that family medicine residents often find themselves in rural and remote communities. RCPSC residents are more likely to find themselves largely based out of large academic centre with less DME requirements and most often in small urban/large rural community hospitals and regional referral centers. DME for RCPSC residents that takes place in regional centers is quite different when compared to the DME of

CFPC residents in rural/remote locations. Differences also exist in the time each group spends distributed (AFMC, 2006). We find this to also be the case in BC. Therefore, resident needs while distributed may differ between RCPSC and CFPC residents. This warrants further investigation.

Recommendations

1. Address transparency and clear communication to residents about their DME requirements.
2. Work with UBC, the health authorities, distributed sties and community distributed sites to highlight the role and expectations of residents, especially when engaged in DME.
3. The needs for DME of CFPC and RCPSC residents may differ significantly; further investigation is required.
4. Answer the question of accountability on behalf of UBC, the health authorities, provincial government and PAR-BC.

Distributed Medical Education & PAR-BC

DME is a new concept, but PAR-BC has already strived to address some of the issues residents might face. These include formal articles in the collective agreement, letters & memorandums of understanding, as well as, member outreach to distant teaching sites. However, residents still have a sense of alienation/isolation, question the applicability of the current collective agreement to their residency experience and are unsure how to access current provisions for DME PAR-BC has in place.

The collective agreement includes the following that addresses DME: *letter of understanding – distributed training locations; a memorandum of understanding – Internet; Article 15 – portability of benefits; Article 17 – facilities for residents and Article 27 – mandatory rural rotations*. These may not have been updated since the last round of contract negotiations, which pre-dates the expansion of the post-graduate medicine programs in BC and may need re-evaluation for their adequacy. This should be addressed during the current contract negotiations.

As it stands, member outreach in the past year has included communications via Eblast emails to all members, invitations to participate in almost all centralized (Vancouver) activities (town halls, board meetings) in person, via teleconference or videoconference, invitation and compensation to participate in a resident orientation for all R1's, site visits this past year by PAR-BC president and staff, support for resident representatives to travel to Vancouver for meetings and PAR-BC branded paraphernalia handed out. Despite these efforts, PAR-BC still experiences difficulties engaging its distributed residents and this is reflected in residents feeling alienated and isolated from the organization. Members of the DMEC postulated that it is difficult to integrate distributed residents into the PAR-

BC governance structure and attend Vancouver-centric meetings. Creative and innovative means are needed to overcome these obstacles.

Lastly, the question still remains about the enforceability of the sections of the collective agreement that address DME without clearly delineating with whom the responsibilities for DME rest. Which brings to question how is PAR-BC being accountable to its residents and helping to bring distributed sites in line with the collective agreement.

Recommendations

1. Inventory of all PAR-BC provisions currently in place for residents in DME and improve "marketing" of these strategies.
2. Critically appraise the current collective agreement for its adequacy in addressing DME post-expansion and update these provisions during collective negotiations.
3. Ensure communication to distributed members continues with emphasis on provisions available to them and ease of access.
4. PAR-BC integration into the ever-expanding post-graduate residency programs, especially at distributed sites.

Strengths and Challenges of DME

It is important to underline that overwhelmingly the committee agreed that residents enjoy living and learning at distributed sites and community distributed sites. They perceive many benefits to the distributed nature of the residency programs. They also identify with the socially accountable undertones of training in these communities to address the misdistribution of human health resources and improve access to health care for marginalized populations.

The DMEC identified many strengths and challenges for DME. The goal of the committee was to provide a snapshot of these strengths and challenges. This is by no means an exhaustive list and deserves further attention. Overwhelmingly the greatest strength of the DME experience is the increased autonomy and control over learning and scheduling, as well as, more hands on practical training in an environment that has fewer learners. However, these benefits are not acquired without challenges. The greatest difficulties were encountered when planning/preparing for a DME experience, confronted with isolation/alienation and concerns over the quality of learning experiences.

Strengths

1. Autonomy and control (scheduling, call, learning experiences)
2. Learning
    a. Focus on generalist, hands on medicine and procedural skills
    b. Focus on education, not service

    c. Integration as a valuable member of the health care team
    d. Fewer learners
3. Socially accountable
    a. Service benefit to the community to have residents
    b. Education benefit to learn and teach in these environments
4. Social
    a. Integration into community
    b. Increased collegiality between residents
5. Collective agreement

Challenges

1. Planning, organizing, integrating and personal accountability
    a. Transparency/communication with DME experience and requirements
    b. Integrating into the community and health care team
    c. Greater need for self-motivation and self-direction
2. Isolation and alienation
    a. Personal – family, friends, support structure, difficult access to support services
    b. Professional – small number of colleagues & other professionals, membership with professional associations, networking difficulties
    c. Academic – away from academic centre, difficult access to centralized academic resources
3. Interpersonal/interprofessional Conflict
    a. Role of preceptor
    b. Conflict resolution
4. Accommodations
5. Financial burden
    a. Hidden costs
    b. "Reasonable" reimbursement
6. Reliance on Information Technology
7. Learning
    a. Education versus service
    b. Volume
    c. Capacity
    d. Faculty engagement
    e. Adequate training and preparation of residents
8. Collective agreement
    a. Strict application
    b. Accountability
9. Increased risk exposure and liability

A few common themes emerged from our discussions. Firstly, a dichotomy exists between the DME experiences of RCPSC and CFPC residents. The use of distributed sites and community distributed sites is most marked for family medicine, and more marked for rural family medicine (AFMC, 2007). It has been found that family

medicine residents receive 50-100% of their education at a distance (AFMC, 2006) and this is the trend at UBC. The RCPSC programs tend to have distributed experiences focused on developing generalist skills early during their residency and again somewhat-mandatory distributed experiences intended to provide a community context in their senior years. However, these distributed experiences usually take place at regional centers, which is quite different when compared to the distributed experiences in family medicine (AFMC, 2006). The second theme is with respect to community size and location. The DMEC theorized that the magnitude of the challenges and strengths of DME would be most marked for the smaller and more remote communities. For example, a small and remote community may not have reliable Internet access and would present a greater challenge to a resident's well-being and learning when compared to a similar community that has reliable access. Finally, it was identified that a resident's DME experience is also impacted by their personal situation (ie family, relationship and access to personal support structures).

Most of the identified strengths are self-explanatory, however, a few share commonality with some of the challenges of DME. Greater autonomy and control over their residency training allowed residents the flexibility to tailor their schedules to their personal needs, be it around recreation, family or other activities. Autonomy is also reflected in the challenges of DME. The need for greater responsibility, personal management and re-organization of their lives in a new community can be difficult, especially if the resident is opposed to being there. This also adds "administrative duties" to the resident, increases their workload and their burden of stress. Another example of a "double edge sword" involves the resident's social life in DME communities. Fewer learners often result in those few residents forming stronger bonds and increased collegiality; however, this can also further perpetrate feelings of isolation and alienation should the residents not get along. Also, should "the welcome" of the resident to the community be less forthcoming, integration into the community may be difficult and overwhelming. Finally, the collective agreement is also seen as both a strength and a challenge. Foremost, the DMEC strongly identified that this contract protects residents from exploitation and provides them with some very useful and portable benefits. However, strict application of the collective agreement, particularly around work hours, is problematic in many distributed and community distributed sites as the lack of flexibility leads to lost valuable learning opportunities.

The most poignant challenge faced by residents in DME is isolation and alienation. It has been reported (AFMC, 2007) and is echoed by the DMEC that residents lose a sense of belonging to the "home program" (AFMC, 2007) and frequently report challenges which revolve around personal, professional and academic isolation. Personal isolation manifests by transplanting learners into a new, challenging, rural and often remote community where they must leave behind family and friends. Personal isolation is further exacerbated by challenges with access to learner support services (AFMC, 2007). Professional isolation stems from a limited number of other residents available for interaction and a limited number of other health care

professionals to mentor professional growth. Learners also experience a sense of academic isolation and must adapt to new means and methods to access scholarly resources, to network and must overcome great distances to travel for conferences or program wide events.

The amount of planning a resident puts into organizing their DME experience can be onerous. This is made even more difficult by a lack of transparency or ease of access to information to adequately plan. An example was made of the rotating internship in Victoria. In some cases, Resident's were not aware they were to be transplanted to Victoria from Vancouver. They were left scrambling to find accommodations, support for their families and unsure of their role as a resident in this new environment.

In order to mitigate the isolation faced by learners at distributed sites there is an increased reliance on information technology resources such as the internet, online libraries, online course materials, teleconferencing, hand held devices and videoconferencing, referred to collectively as E-learning (AFMC, 2007). E-learning has been shown to help bridge the gap between alienation and isolation, provide an academic environment that meets the learner's expectations and as far as academic performance is concerned, has demonstrated the ability to provide similar outcomes to traditional styles of medical education (Lovato & Murphy, 2008; Ruiz, Mintzer & Leipzig, 2006). E-learning can increase accessibility to information, facilitate updating curricular content, standardize the delivery of the curriculum, enhance learning through the adult learning theory and lead to significant cost-savings, sometimes as much as 50% (Ruiz, Mintzer & Leipzig, 2006). However, E-learning also burdens the resident financially since they often shoulder the cost of these technologies out of pocket and practically by a lack of adequate infrastructure, troubles with access to the necessary technology, lack of familiarity with information technology resources and unavailable ongoing support for its use.

Concerns were raised around lackadaisical arrangements for accommodations, the hidden financial burden of DME, reimbursement policies within the different programs, the concept of "reasonable reimbursement" and the quality of the learning environment. The preceptor/resident relationship also raised a few concerns given the overlap between social and professional spheres, especially with respect to conflict resolution. Interestingly, the DMEC raised the concern of increased risk exposure and liability in our roles as residents in DME communities, reflected in the lack of specialist support, lack of resources to accomplish the same tasks in larger centres, the need for more proficiency with procedures and the need for a broader base of clinical knowledge.

Recommendations

1. That PAR-BC work with appropriate stakeholders to facilitate the strengths of DME experience and take measures to further investigate and address the challenges of DME.

How Can PAR-BC Better Engage/Support Residents in DME

A recurring question for PAR-BC is how the organization can better engage and support residents in DME. This question was put to all the members of the DMEC and a few ideas were suggested. Some of the ideas address the challenges and strengths of DME, whilst others are novel. They are listed below:

1. Advocacy for DME with post graduate deans
    a. Underline resident perceived strengths
    b. Address resident challenges while DME
2. Preparation
    a. Educate residents about DME
    b. Educate residents about different sites
    c. Educate distributed sites on the role of the residents and their rights
3. Address the context of DME
    a. Service versus education
    b. Application of the collective agreement
    c. Interprofessional and personal relationships
4. Accountability for DME
    a. Provisions already in place (collective agreement)
        i. Accommodations, financial reimbursement, Information technology
    b. Representation of distributed residents in PAR-BC governance
    c. Equity
5. Facilitate networking amongst distributed residents and sites
    a. Regional resident retreats
    b. Distributed section in the PAR-BC pulse
    c. Site visits
    d. Mentor program
6. Mandate mandatory CMPA coverage

The most important step is to outline a foundation for residents engaged in DME in BC. A common working language must be established, transparency needs to be improved and better communication should take place around DME. In addition, many of the outlined challenges, strengths and suggestions to better engage and support residents in DME revolve around resident well-being. These initiatives, with some work, could be implemented without delay within the organization.

<u>Recommendations</u>

1. PAR-BC engage and support residents with the aforementioned suggestions.
2. PAR-BC continue with the DMEC as a standing committee.

3. PAR-BC actively recruit residents in distributed sites to sit on the board of directors.

Acknowledgements

I would like to thank and acknowledge the contributions of the members of the DMEC, Adama Watchorn, Ayesha Vawda, Erika Dempsey, Jenny Ko, Jessica Otte, Kathleen Cunniffe, Lee Bogle, Naaz Parmar, Nicole Bennett-Boutilier, Sandra Wiebe, Steven Yau, John Stamp, Patrick Oxciano, Joyce Leo, Kristel Lobo-Prabhu, for their time commitment and help editing this document.

Thanks are also extended to the PAR-BC Board of Directors for their commitment to fulfilling their mandate in a distributed model.

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Appendix A
Terms of Reference

COMMITTEE: **Distributed Medical Education Committee (DMEC)**

CHAIR: **Alex Anawati, R2 Family Medicine (Kelowna)**

Members: **Adama Watchorn, Ayesha Vawda, Colleen Black, Erika Dempsey, Jenny Ko, Jessica Otte, Kathleen Cunniffe, Lee Bogle, Naaz Parmar, Nicole Bennett-Boutilier, Sandra Wiebe, Steven Yau, John Stamp, Patrick Oxciano, Joyce Leo, Kristel Lobo-Prabhu**

PREAMBLE

The UBC post-graduate medicine programs use a distributed model to meet capacity needs that are a result of a recent 2-fold increase in resident positions in BC and to address the misdistribution of physician human health resources. PAR-BC recognizes that DME affects a large portion of its constituents and has encountered challenges engaging its distributed members. Since this is a new concept in medical education, PAR-BC would like to evaluate innovative approaches to promote its mandate in a distributed model.

OBJECTIVES

1. Clarify the "working language" of DME;
2. Identify the needs of residents engaged in DME:
    a. Strengths and challenges across a spectrum of DME experiences.
        i. Communities – urban, large rural, remote, new teaching sites.
        ii. Personal backgrounds – families, dependents, in-province, out-of-province residents.
        iii. Family medicine vs RCPSC residents
    b. Educational needs
    c. Employment / Working Environment / Application of Collective Agreement
    d. Wellness initiatives in a distributed model;
3. Ascertain how PAR-BC can further engage and support residents at distributed sites;
4. Make recommendations to the PAR-BC Board of Directors to help align the PAR-BC organization with a distributed model.

PROPOSED AGENDA OF ACTION

1. This is an ad hoc PAR-BC committee.

2. The committee is opened to all PAR-BC members and will meet a minimum of twice over the months of July, August and September 2010; more meetings may be added and the timeline extended at the discretion of the committee and Board of Directors. Meetings will likely take place by teleconference, videoconference and through email discussions.
3. The committee will be provided with an agenda, membership list, with suggested reading materials and relevant referenced resources prior to each meeting.
4. The first meeting will mainly engage committee members in discussions surrounding the first two objectives. A "working language" for DME will be established and committee members will be asked to bring ideas around "the needs of residents in a distributed model."
5. The second meeting will focus on "tying up loose-ends" from the first meeting, focus on the objectives of how PAR-BC can further engage residents at distributed sites and finalize recommendations to the Board of Directors.
6. A motion or action item will be carried forward by consensus.

Level 1 - "I agree and fully support the position being enunciated"
Level 2 - "I may not fully agree, but will accept and support the position being enunciated"
Level 3 - "I have concerns and/or need further clarification before I can accept and support the position being enunciated"
Level 4 - "I have significant concern and I believe more discussion or research is required; or, I do not understand and am not at all comfortable supporting this position being enunciated, until I understand further"

PROPOSED OUTCOMES OF ACTION

1. The committee will provide a written report to the PAR-BC Board of Directors with recommendations and action items to be discussed via email by the end of September 2010, however, this date is flexible dependent on the activities of the committee.
2. Should the Board of Directors accept the DMEC's proposed initiatives, the board will establish the best course of action to pursue them further.

CALL TO MEMBERS

1. Membership to the committee will be actively sought out by the following means:
    a. E-Blast circulated to the general membership
    b. Appointments from the Board of Directors
    c. Selective recruitment of distributed residents.

Appendix B
Distributed Medical Education Experience by Residency Program

**** May not be 100% accurate, information was taken from CaRMS "program information section"**

Table 1. Time spent in DME by UBC residency program

Specialty	Number of Residents in Program*	Time Spent in DME**
Anesthesia	59	1-2 months rural/community Teaching sites include Victoria, Nanaimo & Prince George
Anatomical & General Pathology	20	3 months outside UBC teaching hospitals Teaching site includes Victoria
Cardiac Surgery	6	0
Community Medicine	10	3 month rural rotation Rotations can be organized out of province and internationally Teaching sites include Victoria and various health regions throughout the province.
Dermatology	15	1 month rural rotations in Victoria, Prince George and Kelowna
Diagnostic Radiology	35	Electives available for community placements
Emergency Medicine	20	No mandatory rural rotations; Opportunity for 1 month rural or urban Due to increased capacity some rotations are done outside of Vancouver
FM Greater Vancouver	24	2 months rural rotation Teaching sites include Burnaby, Peace Arch, Surrey Memorial, Abbotsford and rural training sites approved by program.
FM St-Paul's	24	2 months rural rotation Teaching sites include Surrey
FM Victoria	8	100% at a distance from Vancouver Outside Victoria – 1 month Alert Bay, 1 month Duncan, 16 weeks rural or community family practice, 8 weeks rural (Aler Bay, Bella Bella, Bella Coola, Queen Charlotte Island, Hazelton or Inuvik)
FM Okanagan Rural	26	100% at a distance from Vancouver; main site Kelowna 2 months Okanagan Valley community clinics, 2 months Vernon, 8 months rural, 1 month elective in Vancouver

		(trauma).
FM Victoria	32	100% at a distance from Vancouver; main site is Victoria 1 month Duncan, 2 months rural
FM Chilliwack	16	100% at a distance from Vancouver; main site is Chilliwack 2 months rural rotation
FM Prince George	16	100% at a distance from Vancouver; main site is Prince George 2 months rural in Hazelton
FM Northern Rural	6	100% at a distance from Vancouver; main site is Prince George 8 months rural, 1 month Vancouver (trauma)
FM IMG	24	2 months rural, Training sites include Surrey and lower mainland hospitals
FM Nanaimo	16	100% at a distance from Vancouver; main site is Nanaimo 2 months rural
FM Peace Liard	8	100% at a distance from Vancouver; main site is Fort St-John and Dawson Creek. Other sites include Chetwynd, Tumbler Ridge, Hudson's Hope & Fort Nelson. 2 months rural
FM Northwest	4	100% at a distance from Vancouver; main site is Terrace. Other sites include Prince Rupert, Kitimat, Smithers, Queen Charlotte Islands, Hazelton, Nisgaa, Haida, Gitxsan. 2 months rural
FM Abbotsford	12	100% at a distance from Vancouver; main site is Abbotsford. 2 months rural, other rotations may take place outside of Abbotsford
FM MOTP Rural Victoria	4	100% at a distance from Vancouver; main site is Victoria. Other sites include Duncan 6 months rural, 1 month Edmonton (PTSD rotation), 2 weeks academic time Kelowna, 8 week Duncan.
IMG General Pathology	2	1 rotation in a community hospital
General Surgery	48	Training sites include Surrey, Prince George, Chilliwack, **Cariboo Memorial Hospital**, Cranbrook and Victoria. **Length in DME?!?!?**
Hematological Pathology	5	
Internal	123	Teaching sites include Surrey, working on developing

Medicine		subspecialty rotations throughout the province, Prince George, Victoria, Maple Ridge, Penticton, Campbell River Up to 7 months away from Vancouver
Medical Biochemistry	10	
Medical Genetics	5	
Medical Microbiology	5	1 month in community hospital
Neurology	15	Training sites include Victoria, Kamloops, Prince George, Surrey and Burnaby. 2 months community rotations
Neurology – Pediatric	15	
Urology	15	Optional 3-4 month rural elective
Radiation Oncology	10	Electives optional in distributed sites (Surrey, Victoria, Kelowna)
Psychiatry – Fraser Region	20	Time not specified; rural sites available.
Psychiatry – Vancouver Island	10	100% at a distance; main site is Victoria with availability of 6 months selective, 6 months electives in more rural sites
Psychiatry – Research Track	10	Based in Vancouver; optional rural/distributed sites available (6 months selective; 6 months electives)
Psychiatry – Prince George	5	100% DME; other rural sites optional for electives
Psychiatry	65	Some residents assigned to Victoria in 1st year (# not indicated); optional rural/distributed sites for electives/selective (PGY5)
Plastic Surgery – Clinician Investigator Program	5	Kelowna indicated as a training site, but time spent there not specified
Plastic Surgery	5	1 month elective in R4 year, can be interprovincial/international; Kelowna listed as a training site
Physical Medicine & Rehabilitation	10	
Pediatrics	52	Vancouver based; 1 month Sunny Hill Health Centre; 1 month Kamloops, 1 month Surrey; 3 months electives; other sites listed under training sites
Otolaryngology	6	Up to 9 months Surrey; 3 month elective time
Orthopedic Surgery	30	2 month optional rural elective; distributed sites listed under training sites

Ophthalmology	15	Vancouver based
Obs/Gyn	40	R1 possibly in Victoria; 12 weeks community obs/gyn (Prince George, Nanaimo, Kamloops); 20 weeks of electives (rural sites not mentioned for these)
Neuropathology	10	R1 possibly in Victoria; remainder of program not described
Neurosurgery		Elective community rotation in Kelowna, Victoria.

*** Approximate total number of residents based on PGY1 enrollment and multiplied by the length in years of the program.**
**** Designated as time spent outside of Vancouver based hospitals (VGH, St-Paul's, New Westminster & Richmond).**