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Abstract

There is a paucity of published literature related to new regional medical campuses. The authors, members of the Association of American Medical Colleges (AAMC) and its Group on Regional Medical Campuses (GRMC), offer a historical perspective on the role of Regional Medical Campuses (RMCs), and provide a roadmap for establishing a new RMC, including logistics, resources, curriculum development, student services, faculty, affiliations, and networking within the community. A checklist designed to support leadership decision-making is also included. The RMC is an efficient model for increasing opportunities for clinical training, accommodating expansion of graduate medical education, and offering a cost-effective solution to train future physicians.

Introduction and history: Why start a new regional campus?

A regional medical campus (RMC) is a location separate from the main campus of a medical school offering one or more full years of the institution's medical education program, but not independently accredited by the Liaison Committee on Medical Education (LCME). While a few RMCs in the United States existed before the middle of the last century, the RMC model fully emerged in the 1970s with the establishment of 35 campuses between 1970 and 1979 as a way to increase learner enrollment and diversify learner clinical experience.¹ From 1980 until the mid-2000s the number of medical schools as well as RMCs remained stable with relatively few new institutions or RMCs being created. This changed in 2006 when the Association of American Medical Colleges (AAMC) issued a call for a 30% increase in U.S. medical school enrollment by 2015, grounded in a projected physician shortage.²

The AAMC administers an annual survey to all medical schools regarding current and future RMCs. Data from the AAMC national survey shows that in academic year 2015-2016, 51 U.S. medical schools out of 142 who participated in the survey had at least one RMC, which amounted to 40% of the institutions surveyed.³ This was a significant proportion of all medical schools at the time of the survey and was recognized as a growing trend, since over the 5-year period preceding the survey between 2011 and 2016, the number of medical schools with an RMC increased from 34% to 40%. In 2016 alone, 16 new RMCs were created, 8 schools expanded already existing campuses, and 15 schools increased the number of students within existing campuses.⁴ The percentage of medical schools reporting intentions to create a new RMC, expand an existing RMC, or increase the students at an already established RMC has remained stable over the last decade, at about 21% of all schools.⁵ Therefore, the

creation of an RMC is not unique, but is rather a commonplace approach embraced by medical schools often in response to a need for increased student enrollment to address a regional projected physician shortage. The AAMC survey also inquired about the reasons for starting RMCs. Medical schools identified the following as compelling reasons for considering a new RMC:

- Serving state needs – typically expressed as a legislative mandate addressing physician workforce needs;
- Serving local needs – typically expressed as a need to attract high-quality physicians to rural areas;
- Institutional commitment to a distributed educational model – allowing students to be trained in a variety of settings while providing them access to different patient populations;
- Institutional need to increase class size, typically expressed as a need to increase the physician workforce in underserved areas of the state, and sometimes aligned with rural RMCs;
- Collaboration between the institution and resource-rich regional community systems, building mutually beneficial relationships;
- Need for student exposure to different practice types – intercity/suburban/rural;
- Increasing clinical teaching capacity in general;
- Addressing healthcare needs of communities;
- Expansion of academic medical centers into community settings.

Fulfilling the mission of the medical school⁶ and meeting increased demands for physicians in rural areas^{7,8} are consistent factors cited for establishing new RMCs in the existing literature. RMCs offer states and institutions a cost-effective model for medical student education, while providing comparable educational benefits in geographically new territories.⁹

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Little is published in the literature specifically regarding the implementation and development of new RMCs. Most of the current literature discusses RMCs created within a new medical school, focusing on the start of the medical program at the central campus, and not on details about the RMC. The Macy Foundation published 2 reports on new and developing medical schools.^{10,11} Major factors in planning included the positive impact that medical schools have on the universities that initiated the new schools, advantages for the hospitals and health systems that assisted in the school's establishment, and benefits to the community such as provision of primary care and local economic growth. Whitcomb^{9,10} suggested that a feasibility analysis is a major part of the decision to start a medical school and such analysis could be time-consuming and lengthy. Space allocation, availability of faculty, and the overall ability to ensure quality student education are critical. The reports noted that some of the RMCs established as 4-year or 2-year campuses over time became self-sustaining, separate medical schools. Of the 15 new schools described in the 2013 Macy report,¹¹ 8 (53%) were originally established as RMCs.

Hays¹² suggested that successful educational innovation in the development of regional medical education is based on 10 principles, including strong community support, development of an appropriate structure to deliver the mission, and recruitment of faculty who are positive role models. Coleman et al.¹³ and Siegrist¹⁴ used spatial accessibility analysis, utilizing geographic information system mapping technology (GIS), to define areas of physician need. Beckett & Morrison¹⁵ outlined a model for identifying the location for development of a new medical school based on the economic concept of physician demand, rather than the social concept of need, and suggested that this may be a better approach to addressing the physician shortfall. They noted that physicians trained locally may likely be retained in-state to meet the physician demand.

In 2010, Smego et al.¹⁶ published a chronicle on the development of the Commonwealth Medical College that started with 3 RMCs in Pennsylvania. The school's purpose was to increase physician numbers, thereby decreasing a physician shortage in the northern part of the state. Prior to its development, considerations were given to financial planning, clinical site availability, accreditation requirements, and stability of the local practice environment in supporting student training. Fogarty et al.¹⁷ described the start of the Florida State University College of Medicine, created to meet health care needs outside the academic medical center, in ambulatory settings. This community-based school started as 6 RMCs and 2 rural sites that were spread across the state. Central oversight of curriculum and student affairs required faculty development at all sites, and an online evaluation system was imperative for the school to meet its mission. In the future, overall physician demand will be impacted by a variety of societal forces, such as changes in healthcare delivery, increasing patient populations, and an aging

physician workforce.¹⁸ States are faced with changing their approach to medical education to meet this growing need. There are several options to consider, which include: 1) Establishing new medical schools; 2) Increasing the capacity on current campuses of private and public medical schools; and 3) Establishing one or more RMCs at existing medical schools. The cost of building new medical schools is at times prohibitive¹⁰ and might decrease the financial resources available to meet the clinical, service, and research missions of existing medical schools. Moreover, limited resources at established academic medical centers (AMCs), where physicians are often already stretched thin with clinical responsibilities, can make expansion of current medical schools a less attractive option. Consequently, expanding the class size of existing medical schools by establishing RMCs that incorporate existing educational and/or clinical facilities in outlying communities and drawing on expertise of local practicing physicians becomes an attractive solution to educating medical students.

Starting a new medical campus: Logistics and resources

The logistics of starting an RMC can be daunting at the outset for those with insight into the number of elements that should be addressed proactively. Alternatively, for those without experience, the magnitude of the undertaking may only become apparent well into the process. Starting a new RMC should be a decision well planned and broadly discussed, with completion of a needs assessment, a feasibility study, and strategic planning.

There are essential areas that deserve initial consideration, discussion, and definition prior to launching a new RMC. There are a variety of resources available to the institution that should be consulted *before* deciding on models, financial agreements, or any formal infrastructure development. Due diligence is certainly one of the most important factors in building a successful RMC reliant upon successful regional partnerships.

Consultation

Consulting with one or more experts on the structural design of the RMC and the requirements for successful LCME accreditation are time and money well-spent. Following a thoughtful plan that identifies specific areas for accomplishment will provide useful guidance that can help to ensure both early and long-term success. Before a decision to start a regional campus is made, consultation with the following collaborators should be considered:

1. The LCME Secretariat – The ex officio staff of the LCME at the AAMC and the AMA offer their services in consulting about RMC-related requirements and have seen both successful and unsuccessful examples of implementation. They provide valuable

advice about cost, possible educational pitfalls, and planning for necessary institutional agreements.

2. Others who have started RMCs in the last decade – Contacting those institutions (both main and regional campuses) that have implemented a new RMC in the last decade is probably the most important action of the information gathering phase. If possible, also talk with schools that ended up choosing not to start an RMC, or schools that chose to pursue a new medical school instead. While this requires a little research, it will serve to identify successes and mistakes from past RMC implementation, as well as possible consultants who may be of assistance in determining financial feasibility. Joining a networking group like the *AAMC's Group on Regional Medical Campuses (GRMC)* is an excellent way to develop the personal relationships necessary to get the real backstory about successes, and more importantly, failures.
3. The local community – Through collaborations with local civic groups like the Chamber of Commerce and ongoing discussions with community health leaders, develop relationships that might transform into resourceful future partnerships. Do not underestimate the value of an academic institution to a regional health system which can often provide valuable resources, as well as strong brand recognition, and therefore greater community buy-in.

Needs assessment and financial structure

While national data have established the overall need for training medical students, a needs assessment specific to the academic medical center (AMC) and local community will help to define goals and objectives. A commitment to ensure financial sustainability is necessary. Is there a source of institutional, state, or outside funding? Has the potential for local philanthropy been explored? Will student tuition be used directly, indirectly, or not at all at the RMC? While the LCME requires that tuition be the same at both the AMC and all affiliated RMCs, is the overall cost of attendance at the main and regional campuses comparable, and how will student debt be addressed at the RMC? Frequently, providing a path for reduced student debt at the RMC can be a strong incentive for students to train at a newly launched RMC without an established track record. An important consideration is whether the new campus would expand the class size or serve as an additional venue for clinical opportunities. It is also necessary to assess the locally available physician workforce, including number of physicians, range of specialties, interest in teaching, as well as the number of physicians needed for delivering the curriculum and for student advising. Furthermore, the

possible physician recruitment challenges facing specific communities should be a part of the needs assessment.

Feasibility assessment

Identifying funding sources is only one step in determining the feasibility of establishing an RMC; other important questions also require answers. For example, are there already established clinical affiliations, or are new ones needed? What is the vitality of local healthcare institutions, and are they able to provide adequate teaching venues for medical students? Are bed-size, patient mix, utilization rate, and annual admissions able to provide quality education related to the student curriculum, (in other words, are there adequate numbers of patients and a diversity of cases to support training)? Are there available experienced administrators to support the start and development of the new RMC, or is new recruitment needed? Is the local community supportive of establishing a new campus? Establishing, nurturing and preserving clinical partnerships is a pivotal factor in a school's ability to establish a new clinical campus.²⁰ Working with hospital leadership is not a "one and done" endeavor. Successful partnerships require thoughtful and continued communication, inclusion in decision making, a collaborative approach to student teaching, and continued community engagement.²¹⁻²³

Giving serious consideration to facility availability is critical for an RMC launch. An advantage to the RMC is that established facilities at regional medical centers can often be utilized for teaching medical students, obviating the need for new and costly construction. In addition to clinical facilities, the LCME requires dedicated space for small group learning, self-directed learning, and individual and group study, a student lounge, call-room space, as well as student housing. Consequently, each of these facility resources should be identified. Both immediate and future facility needs should be considered from the start.

Strategic planning

Short and long-term planning is necessary to envision and implement the new campus. Strategic planning includes each area of the school's vision and mission supported by the RMC (e.g. education, service, and research). Furthermore, such planning requires an assessment of resources needed for implementation, establishment of goals, and identification of measures of success. Formal analyses, such as SWOT (Strengths, Weaknesses, Opportunities, and Threats) and/or PEST (Political, Economic, Socio-cultural, and Technological factors) support effective planning.

In addition to community-based RMCs, such as those at FSU,¹⁷ several programs have targeted specific needs in the communities they serve. The importance of integration into local communities to improve outcomes has been clearly identified.²⁴⁻²⁶ This is particularly important in addressing the needs of rural and remote communities. Similar issues have

been identified in the development of RMCs in other countries; Lawrenson, *et al.*²⁷ highlighted the need for training physicians in the country versus importing physicians who will care for underserved communities.

Organizational structure

Defining the model for regional expansion will help to guide subsequent decisions in other areas. There are several distributed models employed at different schools, each customized to fit the AMC's needs and resources. The most common model offers basic science instruction at the main AMC, with clinical clerkships and perhaps electives at the RMC. South Dakota School of Medicine and Florida State University College of Medicine are examples of this approach.²⁸ A flipped approach, with basic science instruction delivered at an RMC and clerkships provided both regionally, and centrally at the AMC, is another less traditional design that has been used at Indiana University.²⁸ Some programs, such as the Campus de l'Université de Montréal en Mauricie, located in Quebec, combine the resources and facilities of 2 distinct universities and several independent regional medical centers to provide all 4 years of instruction. When an area has a critical need for more physicians, this can take precedent over other competing missions. A creative design, such as that used by the University of Washington's WWAMI program provides an example of 5 western U.S. states collaborating to use resources most efficiently. First-year basic sciences are offered at the AMC in Seattle or at one of the 5 RMCs, followed by the second year with all students training at the Seattle campus, and third and fourth year students rotating in either Seattle or at one of the RMCs spread across Washington, Wyoming, Alaska, Montana and Idaho.²⁸ Typically, decisions about the type of RMC are determined by institutional mission, existing resources, available sites, and regional culture.

Governance

Medical schools use various models for governance to ensure clarity of structure. A clearly defined structure and organizational chart with reporting lines is essential in guiding the decisions made at the RMC. One study suggests that the most successful models are based on a shared vision as well as clear lines of communication between the main campus and RMC. Such models also emphasize greater reliance on local decision making at the RMC to address challenges that arise during program implementation.¹⁹

Typically, the RMC will operate with a separate faculty and administrative staff who handle day-to-day issues.¹⁰ Many RMCs have a campus dean who provides oversight for the RMC and reports to leadership at the main campus. However, though many RMCs are managed locally with some coordination from the main campus, others are run entirely from the main campus.²⁰

Other models exist and vary considerably by geographic location and engagement with the local community. One approach is the use of a balanced matrix organization with dual reporting responsibilities to both the main medical school and local partners, addressing the issues of comparability.²¹ Affiliation agreements with local health systems where instruction, learning, and clinical rotations will occur are critical to ensure a stable teaching environment and are required by the LCME. The support of the broader community at a new RMC is a key element of success for the campus. Engaging local community leaders through participation on committees or in fund raising efforts can contribute to the support of the broader mission long-term.

Leadership

Governance and leadership of RMCs depend on the local context and institutional relationships. As a result, the role of the regional dean could combine aspects of student, educational, and academic affairs. There are valid arguments for recruiting an experienced RMC dean to provide visionary leadership and assistance with navigating the sometimes-turbulent waters of a newly launched RMC. Alternatively, recruiting local physicians with well-established community contacts as campus leaders can provide critical buy-in from potential teaching-physicians in the community. A combination of both leader types with distinct but complimentary roles can reap the benefits of both approaches.

The experts' advice: Areas to consider

Regardless of financial models or governance structures, a primary factor in building a successful RMC is to engage in a sincere effort to create and maintain lasting fruitful working relationships between campus, institutional, and community leaders. This defines the RMC's place in the success of the institutional endeavor while allowing the institution to utilize the benefits of a distant site. Those RMCs that are most successful value the leadership of the RMC and consider it a pivotal part of the institutional academic community. Comparability assessment between the main campus and the RMC should involve curriculum, student support services,²² technology,^{23,24} and availability of scientific labs.²⁵ It is important to understand that the RMC is an extension or a complement to the main campus, rather than a competitor.

Admissions

Medical schools assign students to RMCs in a variety of ways with a centralized admission process a common approach. Relying on the established admissions process at the main AMC conserves significant amounts of time and resources. A centralized admissions process is often utilized with campus visits during the first year, after which students submit their campus preference.¹⁹ This approach optimizes the greatest number of student preferences while respecting space

limitations. Other programs utilize student site preference at the time of admission to make campus assignments.²⁶ A secondary application for students already accepted to the main campus offers a more manageable and creative campus selection process for a defined and usually limited number of students to attend the RMC. The final campus assignment may be based on both student preference and space availability.

Medical schools that have track-specific programs on their regional campuses will often utilize a specific admissions process for that track.²⁷⁻²⁸ This approach can support those students who wish to remain in or near their home communities during medical school. A heightened sense of reasoning in assigning students to a specific campus may be helpful in recruiting and producing practitioners through primary care and rural tracks.

Curriculum

While local resources at the RMC may differ significantly from those at the main campus, the curriculum at both the regional and main campus of the same medical school must be comparable to comply with Liaison Committee on Medical Education (LCME) standards. However, this does not mean the curricula must be identical, and frequently the available teaching faculty, clinical facilities, and educational space will be substantially different between campuses helping to guide thoughtful curriculum development. As medical education has moved toward competency-based assessment, ensuring that student cohorts at both the regional and main campus are achieving expected milestones and ultimately the corresponding competencies has become a common goal. More than 100 years ago in 1910, Abraham Flexner established the basis for the traditional medical school curriculum, where 2 years of basic science are followed by 2 years of clinical learning experiences. Medical education is now moving toward more innovative curricula that better prepare physicians for practice in the twenty-first century, where electronic resources abound for teaching and assessment, as well as diagnosis and treatment. These new approaches to medical pedagogy are often more easily piloted at RMCs, which are commonly smaller with less faculty, staff, and students overall. This smaller size often translates into a campus that could be flexible and nimble in pursuing new initiatives. It may also allow curricular change to be implemented and adjusted in real time more easily and help determine best practices that could eventually be rolled out at the larger main campus.

Innovations in medical education can include longitudinal integrated clerkships, rather than block rotations to better embrace current knowledge on spaced learning and interleaving. In addition, earlier exposure to patient care and case-based learning in teams is being introduced at many institutions. Incorporating inter-professional learning into medical training mimics the real world and facilitates the type

of effective team-based care that is now common. Furthermore, at many schools there is an emphasis on health system science, including value-based care and evidence-based practices.²⁹ In addition, shorter times to completion of training, such as 3+3 programs, and a greater focus on new technology, such as point-of-care ultrasound, are being incorporated into innovative medical school curricula. Joint-degree programs, such as MD/MBA, MD/PhD, and MD/MPH programs can be created to train physician leaders and researchers for the future, especially when the RMC is in close proximity to a collaborative university or college. Such educational innovations may often be more easily introduced, modified, and fine-tuned at the RMC.

Student services

Student services on RMCs are often offered by a variety of campus leaders who may or may not be student affairs professionals. Often RMC Deans serve as curriculum, student affairs, and faculty affairs leaders all at the same time. Regardless of staffing, RMC students require access to all services available to main campus students. This need can be fulfilled using technology to connect learners with the main campus or non-traditional leaders with additional duties in support of learners.

Many of the necessary support services for students at an RMC may be initially provided through an established Office of Student Affairs at the main campus. This is especially true for traditional models, where the first 2 years are spent on the main campus followed by clinical rotations at the RMC. There are several services that students will require regardless of RMC design. Dedicated staff are needed to address the following:

- Student health;
- Mental health and wellness support;
- Student safety and sharps injury guidance;
- Student space and housing oversight;
- Financial aid and debt literacy;
- Career and academic advising;
- Community service-learning opportunities;
- IT support and connectivity to the AMC;
- Administrative support for course selection;
- Scholarly and research opportunities;
- Management of cross functional academic environments;
- Oversight of course schedules and clerkship rotations, and
- Library resources.

Students at RMCs often have the benefit of direct access to faculty mentors from early clinical experiences, which may not be as readily available on the main campus. Building student-teacher relationships early-on could be beneficial in providing career guidance and specialty choice.

Student organizations

First and second year medical students frequently become involved in a number of institutional organizations that provide career guidance, such as specialty interest groups. In addition, community service opportunities allow students to gain leadership experience and demonstrate altruism, which can be highlighted on a CV as well as residency applications. Administrative support, when needed, helps to facilitate these activities.

Testing, evaluation, and learner support

Exponential growth of scientific knowledge has required current medical students to become critical thinkers mastering the practical application of ever-increasing knowledge. With the emergence of competency-based medical education, confirming the acquisition of identified competencies and the milestones toward achieving them is essential to ensure that all students reach the expected performance level for graduation.³⁰ The evaluation of medical students and residents along this competency-based continuum can be assessed in a number of ways. Using the RIME (Reporter-Investigator-Manager-Educator) framework is one approach that can be used to effectively describe professional growth.³¹ A single dean for evaluation and assessment can oversee this ongoing evaluative process at both the main and RMC campuses. However, modes of assessment at the RMC must integrate into online tracking software used at the main campus allowing medical schools to demonstrate compliance with LCME standards.

Both formative and summative assessments are necessary at all medical training sites. Traditional standardized testing, as well as direct observation in the clinical setting and through Objective Structured Clinical Exams (OSCEs) are used similarly at both main and regional medical campuses. Faculty trained to facilitate and evaluate students through direct observation and OSCE exams are necessary regardless of where these sessions are held. OSCE exams also require trained standardized patients, who may assist with the evaluative process. Likewise, certified proctors are necessary for more traditional standardized testing.

Learning support staff are a necessity for all medical schools and may often be extended from the main campus through regular visits to the RMCs, as well as through electronic connectivity via audio-visual platforms. In contrast, a medical librarian is becoming a more essential member of the educational support staff at the RMC due to the increasing reliance on electronic resources for learning and scholarly work.

Faculty

Faculty recruitment should be undertaken with a deliberate approach, based on the specific curricular needs of the campus, with a goal to provide the diversity of specialists that are necessary to meet instructional needs. Therefore, before starting faculty recruitment, completing an “inventory” of faculty needs would be wise, and this should be correlated

directly with the number of students planned for the RMC. Such an approach will allow an assessment of the number of teaching physicians required to effectively deliver the curriculum, provide for student advising and mentoring needs, and support both inpatient and outpatient clinical services. Several questions should be asked when conducting a faculty needs assessment:

- Does the College of Medicine have an Affiliation Agreement with the facility where the faculty will practice? What will be the employment relationship of the new faculty members? Do they work for the College of Medicine, the Health System, or an Affiliate Hospital? Who would need to approve faculty accepting students?

Agreements about who will teach and when often must be made with the health system or employer rather than with the individual physician. A physician may agree and want to accept students, yet other circumstances and requirements at the workplace may prevent this. A hospital’s Educational Office will often manage more than one group of learners and will assign preceptors based on availability and service schedules. For example, one facility may have requests to accommodate allopathic and osteopathic medical students, resident rotations, clinical experiences for nurses, physician assistants, physical therapy students, and students in other clinical specialties. With the expansion of clinical programs across the country, this scenario is more common than not, and it is rare for a school to have an agreement with a local healthcare institution for exclusive teaching of their students. Therefore, the process for obtaining approval for a physician to teach, and for scheduling individual students, may be beyond the “power” of an individual physician.

- Are faculty members remunerated by their current employer?

If the medical school is not planning to monetarily compensate faculty time, reluctance may emerge based on the cost to the preceptors, e.g. the need for producing work Relative Value Units (RVUs).³² Remuneration models may vary and create competition for availability of “teaching slots” in a given hospital. Rural hospitals tend to be smaller and this issue may, therefore, be exacerbated, especially when multiple groups of learners need to be accommodated. Whether there are payments or not, and whether the remuneration is to the hospital or to the physician, depends on agreements and hiring models. In some agreements, the medical school or RMC may provide additional staffing (e.g. a coordinator paid by the school and located at the hospital) to offset logistics in student scheduling rather than compensation to individual physicians. In other models, the institution employing the community teaching physicians may receive remuneration for the services provided and decide how those funds are distributed and used. To date, many schools compensate for student rotations based on number of students taught per week, or per semester.

- Will the faculty be engaged in required clerkships or in electives?

If a preceptor will be teaching an elective rotation to a limited number of students in a small private practice, an affiliation agreement may not be expected, and likely the practitioner will be remunerated directly if they are paid. For required clerkship rotations, however, an affiliation agreement will be needed, and various ways for monetary compensation may be invoked.

- Who controls the faculty schedule?

This is especially important for “volunteer” faculty who may or may not accept students at times when the students are scheduled to receive their clinical experiences.

- Who appoints faculty and what is the process for promotion (if one exists)?

The answers to these questions vary widely between institutions. Traditionally, faculty are assigned to departments associated with the main campus, and if the medical school is a part of a larger university, the rules for faculty assignments stem from a centralized office, such as the Office of the Provost or the Vice President for Academic Affairs, and the University Faculty Organization and its Committee on Promotion and Tenure. Such centralized bodies may vary by organization, function, and authority. How faculty nomenclature is designed, also varies widely, most often having a “clinical” qualifier in the faculty’s title (e.g. Clinical Assistant Professor). Other nomenclature could include “adjunct faculty”, “volunteer faculty”, and other titles, some of which are and some of which are not eligible for promotion. In addition, the expectations for clinical faculty promotion may vary significantly between institutions when they exist at all. More often than not, clinical faculty are not considered eligible for tenure, and some medical schools have moved away from offering tenure altogether. Therefore, it is important to enter discussions about faculty recruitment at a new site with clarity about options for faculty assignment and rank, including expectations for promotion.

Answers to the questions noted above will allow careful planning for faculty recruitment. It is important to include hospital/practice leadership in faculty recruitment and a designated Office of Medical Education or equivalent should be involved in student placement. While affiliation agreements do provide some assurances, these are not contractual relationships and could potentially degrade with a change in hospital leadership, hospital profitability, competing priorities, or new partnerships. Schools need to remain vigilant and intentionally nurture relationships with clinical partners, especially in a community-based setting. The overwhelming majority of faculty at RMCs are volunteer community faculty. As a result, faculty development is a primary concern, particularly with new faculty who may not have had teaching responsibilities since residency. Teaching and assessment methods are rapidly changing and preparing faculty to provide the best educational interactions for

learners is an increasing challenge, particularly with the move toward competency-based medical education, an entirely new assessment model.

Recruiting local physicians who have established positive relationships with other community practitioners is a critical step in identifying and credentialing prospective teaching physicians. Providing adequate faculty development to physicians who may have limited teaching experience, and perhaps no academic exposure since medical school, is an important support service that should not be overlooked. Consideration should be given to remuneration of volunteer faculty or provision of alternative incentives, such as access to library resources, gym facilities, etc.

Ninety-five out of 136 schools participating in an AAMC survey on faculty retention (70%), noted increasing difficulties in recruiting and retaining volunteer faculty at clinical campuses, listing a variety of reasons, including:

- Increased student enrollment leading to increased demands on faculty;
- Local faculty participating in the training of students from more than one medical school or health professions program;
- New medical programs in the area of the campus creating increased competition for resources;
- Inability of the medical school to appropriately compensate physician preceptors.

Such issues should be considered, and possible solutions identified, prior to committing to the start of a new regional medical campus.

Library resources

While the services of a librarian may initially be provided by the local affiliate medical center librarian, a dedicated librarian will become an essential resource for the more established RMC, especially if first- or second-year students are training there. A medical librarian affiliated with the AMC and located at the RMC will provide students with reference services, research consultation such as guiding PubMed searches, coordination of study spaces, and informatics instruction. Moreover, a medical librarian can become indispensable to the RMC faculty by providing the above services, as well as literature searches for scholarly work, curricular support, coordination of services with the AMC library and support in preparing library and information technology sections during LCME reviews.

A checklist to assist decision making for a new regional campus

Table 1 presents a summary of considerations for starting a new RMC and offers medical school leadership and collaborators a systematic model for decision-making and planning a RMC.

Table 1. Actions, considerations, and resources in deciding whether to start a new regional campus

Action	Consideration(s)	Resources
Determine need	<ul style="list-style-type: none"> •Is there a need to increase numbers of learners, student diversity, physician workforce, or patient access? •Does need exist to fulfill an institutional mission or build new relationships with distant health systems? 	<ul style="list-style-type: none"> •Needs analysis
Consultation	<ul style="list-style-type: none"> •Consult with LCME, other RMCs, local health system leaders, community leaders. •Reach out to people who have done it recently and talk with schools who decided not to start a new campus. 	<ul style="list-style-type: none"> •LCME, AAMC-GRMC, campus leaders from peer schools •Networking
Think about infrastructure	<ul style="list-style-type: none"> •Assess medical center facilities, identify local potential teaching physicians. • Discuss Learning Resource Center/ Study Space/ Library facilities. • What curricular model will you use? •How will communication occur across campuses? •Have you built personal relationships between leaders to support a distant site? •What student services do you need? Where will they be offered? •What faculty development/faculty support services are required? Where will they be offered? 	<ul style="list-style-type: none"> •Feasibility analysis
Define organizational structure and governance	<ul style="list-style-type: none"> •Establish role and contributions of campus Dean 	<ul style="list-style-type: none"> •Develop organizational chart to guide reporting relationships
Feasibility analysis	<ul style="list-style-type: none"> •Identify funding, faculty, clinical sites, experienced leadership, and timeline. 	<ul style="list-style-type: none"> •Provided from main campus and established locally
Define leadership positions	<ul style="list-style-type: none"> •Experience with RMC is important; local relationships are critical. •Consider combination of both in different leadership positions. 	<ul style="list-style-type: none"> •Recruit experienced RMC Dean •Recruit local physicians with established community relationships.
Site designation and facilities	<ul style="list-style-type: none"> •Identify site for immediate use and consider expansion in the future. •Can established facilities be used at RMC? 	<ul style="list-style-type: none"> •Identify local facilities, negotiate with main campus •Consider local space operated by AMC, donated space by

	<ul style="list-style-type: none"> •Identify medical training sites, study space, small group learning resource space, classrooms, and offices. •Define curriculum delivery, support staff, leadership, and faculty. •Consider comparability between multiple sites; portion of student tuition flowing to campus to offset expenses. 	education partners, newly purchased or constructed space
Clinical affiliations	<ul style="list-style-type: none"> •Complete LCME-compatible affiliation agreements. •Define availability of patients to support clinical teaching, and physicians designated/credentialed as faculty. •Consider need for faculty development, physician remuneration for teaching 	•Agreement between main campus and local RMC
Number of students to be accommodated at regional site	<ul style="list-style-type: none"> •Projections based on availability of clinical sites, patients, teaching physicians, resources, and ability to provide comparability. 	•Negotiated between main campus and new site
Curriculum	<ul style="list-style-type: none"> •Choose model you will follow based on resources 	<ul style="list-style-type: none"> •Consult with other RMC faculty/deans that have developed curricula. •Research other LICs
How many years of the curriculum will the site offer	<ul style="list-style-type: none"> •Availability of basic science educators to support pre-clinical teaching •Availability of preceptors and clinical sites •Appropriate classrooms, study space, and library resources, •Adequate administration/support staff •Distinct budget for the RMC 	•Negotiate between main campus and new site
Testing and Evaluation	<ul style="list-style-type: none"> •Comparability with oversight is critical •Ensure Clerkship Directors at the RMC and AMC are in communication and using the same evaluative methods 	<ul style="list-style-type: none"> •Certified proctors at RMC •Clerkship Director meetings via IT across distances
Admissions	<ul style="list-style-type: none"> •Follow main campus process or establish independent campus admissions •Independent admissions process requires significant administrative support and personal time for a Director of Admissions, ongoing electronic and mail communication, campus visits, interview process coordination, and implementation. 	<ul style="list-style-type: none"> •Administrative personnel, •RMC Dean for Admissions

Create Student Services Director/Office	<ul style="list-style-type: none"> •Office of Student Affairs at AMC may be able to serve this role initially, but will need onsite support eventually 	•A Director of Student Services or comparable position facilitates optimal oversight
Decide what comparable student organizations you will need, look to AMC organizations	<ul style="list-style-type: none"> •RMC resources may be different than those at main campus facilitating different, but comparable opportunities 	<ul style="list-style-type: none"> •Creative medical students are a great resource •Facilitate networking in the community
Identify teaching faculty	<ul style="list-style-type: none"> •Faculty remuneration for teaching •If not, consider other incentives 	<ul style="list-style-type: none"> •Tuition from RMC students •State or regional funding •Donor relations/development
Recruit medical librarian for RMC	<ul style="list-style-type: none"> •Will assist with LCME accreditation •Provide support for teaching physicians and students to develop scholarly activity 	<ul style="list-style-type: none"> •Local medical center librarian •AMC library services •Distant library support •IT connectivity •Dedicated RMC librarian eventually
Accreditation preparation	<ul style="list-style-type: none"> •LCME requirements for regional campuses 	<ul style="list-style-type: none"> •Strategic planning on-site •Clear communications with main campus •Collaboration for application and related DCI
Information technology and lines of communication	<ul style="list-style-type: none"> •LCME requirements •Logistics for curriculum delivery, student oversight, and assessment/evaluation 	<ul style="list-style-type: none"> •Arranged and tested between AMC and RMC
RMC research agenda	<ul style="list-style-type: none"> •Establish RMC effect on education and community Are there preceptors who may want to develop their own research programs or tag on to one that is already ongoing at the main campus? What are the areas of possible collaboration? 	<ul style="list-style-type: none"> •Set research agenda from the start •Collaborate with main campus •Obtain IRB approvals

Conclusion

While this practical guide is not intended to be a compendium of all information needed to successfully create a new RMC, the authors have summarized the cornerstones and necessary steps in bringing a new campus to life. Starting a new RMC – from creating the concept, to applying due diligence in feasibility and planning, to operations implementation, is a thoughtful, deliberate, and extensive process, which if carefully completed, would yield a smoother accreditation process and faster implementation. A deliberate approach to planning will benefit both the RMC and the community that hosts it. The timeline for this process is framed by accreditation requirements for review and approval, as well as by having a dedicated team to complete the necessary steps. It is important that the whole organization – from the University President to the University Chief Academic Officer, to the College Dean, to the Campus Dean and the college and campus administration are all committed to the process of establishing a new RMC, actively participating in decisions and securing resources for a successful launch. It is equally important that the local community is engaged in the planning process from the very start becoming an active partner in decision-making and RMC design. Continued communication and consultation with the accrediting body from the first inception of the idea for a new RMC is critical to successfully building a new RMC. Developing a financial proforma to guide expectations for resource allocation, revenues, and expenditures will ensure shared understanding among university school of medicine, college campus, and community leadership. The RMC model is efficient for providing increased opportunities for clinical training expansion. The creation of RMCs in association with established AMCs, is a cost-effective and realistic approach to efficiently train new physicians. RMCs therefore, present a viable solution to meet the need for training healthcare providers in the immediate future.

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References

1. Cheifetz C., McOwen K., Gagne P., Wong J. Regional Medical Campuses: A New Classification System. *Acad Med.* 2014; 89(Issue 8): 1140-1143.
2. Association of American Medical Colleges. AAMC Calls for 30 Percent Increase in Medical School Enrollment. June 19, 2006; Washington, D.C. (<http://www.aamc.org/newsroom/newsreleases/2006/82904/060619.html>). Accessed February 11, 2018.
3. McOwen, K. (2017). Regional Medical Campus Survey Data. Group on Regional Medical Campuses Business Meeting, Spring Meeting, Orlando, FL.
4. Association of American Medical Colleges. (2017). Data Tables 13a, b, c. Source: LCME Annual Medical School Questionnaire Part II, 2010-2011 through 2015-2016. Accessed 12/29/2017.
5. LCME Annual Medical School Questionnaire Part II, 2010-2011 through 2015-2016. Medical Schools Expansion Plans.
6. Mallon, W. T. (2007). Medical school expansion: deja vu all over again? *Academic Medicine*, 82(12), 1121-1125.
7. Crump, W. J., Barnett, D., & Fricker, S. (2004). A sense of place: rural training at a regional medical school campus. *The Journal of Rural Health*, 20(1), 80-84.
8. Crump, W. J., Fricker, R. S., Ziegler, C. H., & Wiegman, D. L. (2016). Increasing the rural physician workforce: a potential role for small rural medical school campuses. *The Journal of Rural Health*, 32(3), 254-259.
9. Ludmerer, K., & UPSO. (2005). *Time to Heal: American Medical Education from the Turn of the Century to the Era of Managed Care*. New York; Oxford: Oxford University Press. ISBN-13:9780195181364.
10. Whitcomb, M. (2009). *New and Developing Medical Schools*. New York: Josiah Macy Jr Foundation.
11. Whitcomb, M. (2013). *New and Developing Medical Schools: Motivating Factors, Major Challenges, Planning Strategies*; The Josiah Macy Jr. Foundation.
12. Hays, R. (2006). Guiding principles for successful innovation in regional medical education development. *Rural Remote Health*, 6(2006), 516.
13. Coleman, W.H., Hinkle, T. & Edwards, R. (2013) Alabama's Rural Health Plan; An Analysis of Access to Primary Care in Rural Alabama. The Office for Family health, Education and Research, UAB School of Medicine Huntsville Regional Campus. Huntsville Alabama.
14. Siegrist, K. A Methodology for Analysis of the Workforce Needs for Primary Care Access in Rural Alabama. Association of American Medical Colleges, 10th Annual Health Workforce Research Conference. Washington DC. May 2014
15. Beckett, M. K., & Morrison, P. A. (2010). Assessing the need for a new medical school: A case study in applied demography. *Population research and policy review*, 29(1), 19-32.
16. Smego, R.; D'Alessandri, R.; Linger, B.; Hunt, V.; Ryan, J.; Monnier, J.; Litwack, G.; Katz, P.; Thompson, W. (2010). Anatomy of a New U.S. Medical School: The Commonwealth Medical College. *Academic Medicine*, 85(5):881-888.
17. Fogarty, J. P., Littles, A. B., Romrell, L. J., Watson, R. T., & Hurt, M. M. (2012). Florida State University College of Medicine: from ideas to outcomes. *Acad Med*, 87(12), 1699-1704. doi: 10.1097/ACM.0b013e318271b8b4
18. AAMC (February 28, 2017). The Complexities of Physician Supply and Demand: Projections from 2015 to 2030. IHS Markit. Available https://aamc-black.global.ssl.fastly.net/production/media/filer_public/c9/db/c9dbe9de-aabf-457f-ae7-1d3d554ff281/aamc_projections_update_2017_final_-_june_12.pdf (Accessed 3/30/2018).
19. Foster, J., Byerley, J., Tarantino, H., Chuang, A., Pino, J., Latessa, R., Nagappan, S., Monroe, R., Gilliland, K., Steiner, B., & Beck Dallaghan, G. (2019). Cracking the Nut on LCME Standard 8.7: Innovations to Ensure Comparability Across Geographically Distributed Campuses. *Teaching and Learning in Medicine*, <https://doi.org/10.1080/10401334.2019.1609966>
20. Ellaway, R. and Bates, J. (2018). Distributed Medical Education in Canada. *Canadian Medical Education Journal*, 9(1), Special Issue, e1-e5.
21. Snadden, D., Bates, J., Burns, P., Casiro, O., Hays, R., Hunt, D. & Towle, A. (2011). Developing a medical school: Expansion of medical student capacity in new locations: AMEE Guide No. 55, *Medical Teacher*, 33:7, 518-529, DOI: 10.3109/0142159X.2011.564681.
22. Norris T., Coombs J., House P., Moore S., Wenrich M., Ramsey P. Regional Solutions to the Physician Workforce Shortage: The WWAMI Experience. *Acad Med.* 2006; 81(10): 857-862.
23. MacLeod, A., Kits, O., Mann, K., Tummons, J., & Wilson, K. W. (2017). The invisible work of distributed medical education: exploring the contributions of audiovisual professionals, administrative professionals and faculty teachers. *Adv Health Sci Educ Theory Pract*, 22(3), 623-638. doi: 10.1007/s10459-016-9695-4

24. Sargant, J. M. (2005). Medical education for rural areas: opportunities and challenges for information and communications technologies. *J Postgrad Med*, 51(4), 301-307.
25. Pinder, K. E., Ford, J. C., & Ovalle, W. K. (2008). A new paradigm for teaching histology laboratories in Canada's first distributed medical school. *Anatomical sciences education*, 1(3), 95-101.
26. Kochhar, K., Fancher, L., Brokaw, J., Wilson, J. and Nolin, P. (2018). Tracking Medical Students and Graduates from Hometown to Practice using Geographic Information Systems, 2011-2017, *Journal of Regional Medical Campuses*, Vol. 1 Issue 3. DOI: <https://doi.org/10.24926/jrmc.vXiX.XXX>
27. Arnett, P., Stratton, T., Weaver, A. and Elam, C. (2018). University of Kentucky Rural Physician Leadership Program: A Programmatic Review, *Journal of Regional Medical Campuses*, Vol. 1, Issue 3, DOI: <https://doi.org/10.24926/jrmc.v1i3.1262>.
28. Crump, W., Fricker, R., and Wiegman, D. (2010). The Role of a Rural Medical School Campus in Developing a Sense of Place: The First 10 Years. Letter to the Editor, *Family Medicine*, Vol. 42, No. 3, 160.
29. Smith, T. (2017). Not your grandfather's medical school: Changes trending in med ed. Retrieved from: <https://www.ama-assn.org/education/accelerating-change-medical-education/not-your-grandfathers-med-school-changes-trending>
30. Kirch, D. (2017). AAMCNews-Medical Education. Retrieved from: <https://news.aamc.org/medical-education/article/word-president-core-competencies-and-heart-learning/>
31. Sepdham, D. (2007). Using the RIME model for learner assessment and feedback. *Family Medicine*. 39(3).
32. Hudson, J. N., Westib, K. M., & Farmer, E. (2012). Medical students on long-term regional and rural placements: what is the financial cost to supervisors?