

A View From the Clinical Campus: A Partnership of an Academic Medical Center with an Integrated Delivery System

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Introduction

As the medical profession rapidly changes, many new approaches are being developed in medical education. Several novel strategies are designed to enhance community-based, primary care education. Consequently, the Association of American Medical Colleges (AAMC) has strengthened the organization and role of “clinical branch campuses.” In Milwaukee, an excellent educational model with unique characteristics has been offered for more than 25 years to University of Wisconsin medical students. While this clinical campus has evolved extensively, its fundamental mission has not changed. This article examines the progress in the development of a clinical campus model consisting of a partnership between the University of Wisconsin Medical School and Aurora Health Care. Discussion includes advantages, disadvantages, effectiveness, and directions for the future.

Background

In 1974, the University of Wisconsin Medical School determined that

its students needed a broader clinical experience than was available in Madison or the rural communities used for preceptorships since 1926. Vice Chancellor Robert Cook, in particular, believed an urban experience was not only desirable but necessary for a well-rounded medical education. With that in mind, UW Medical School leaders investigated potential hospital partners in Milwaukee.

A partner was found in Mount Sinai Medical Center, a thriving downtown hospital serving many segments of Milwaukee. Thus, the Milwaukee Clinical Campus (MCC) was born. Richard Rieselbach, MD, provided catalytic leadership as the first Associate Dean for the MCC, seeking a model that would meet the needs of learners and the community. The campus’s original mission was to educate students in an urban setting while providing direct care to Milwaukee’s underserved community.

With a strong Department of Medicine as the MCC’s backbone, additional departments were quickly established in obstetrics and gynecology and psychiatry. Later, family medicine was added. Residency programs were created in the core departments, along with fellowships in gastroenterology, cardiology, and later geriatrics. Subspecialty medicine and OB/GYN grew quickly. At its largest, the campus

had over 80 full-time faculty physicians.

The MCC was thriving and relatively stable until the late 1980s. Then, reimbursement to hospitals declined dramatically. As length of stays shortened, overall occupancy declined, leaving Milwaukee with an abundance of central city hospital beds. During that time period, what had once been eight downtown Milwaukee hospitals evolved into two—Mount Sinai and Good Samaritan. In 1987 these two institutions merged to form Sinai Samaritan Medical Center, the last remaining downtown hospital. At about the same time, Aurora Health Care was created. Initially formed to serve southeastern Wisconsin, Aurora began as a hospital system, which included Sinai Samaritan and St. Luke’s Medical Centers. Aurora’s vision was to be a health care system that addressed the needs of the communities served while concurrently providing valuable educational opportunities in health professions.

These transitions were far from easy for the academic programs. In 1990, the MCC downsized to about 50 full-time faculty. Subspecialty faculty in medicine entered private practice and continued their teaching involvement. The MCC was refocused toward primary care education for students and residents that was intertwined with serving community health needs.

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Partners in Today's Healthcare/Education Environment

The UW Medical School remains one of the top medical schools in the country. Its mission is "Meeting the health needs of Wisconsin and beyond through excellence in education, research, patient care and service." Although regarded as a "research intensive" medical school, an image consistent with its \$148,038,318 million in grants in 2002, UW has traditionally emphasized a combination research funding (non-federal, gifts) as well as clinical practice and teaching.

The medical school's main campus in Madison is located 75 miles from Milwaukee. UW Hospital and Clinics provide clinical care for Madison residents and serve as referral sites for physicians across much of the state. There are 938 full-time faculty, 165 part-time faculty, and 1467 voluntary faculty. Each medical school class consists of 150 students. All students do part of their training outside of Madison, with many clerkships in rural Wisconsin communities. Over half of the students spend part of their time at the MCC.

Aurora Health Care (AHC) is the largest health system in Wisconsin. Its mission as a community-owned, not-for-profit Wisconsin health care system "is to promote health, prevent illness, and provide state-of-the-art diagnosis and treatment, whenever and wherever we can best meet people's individual and family needs. We are committed to improving the quality of health care and health outcomes for people today, through the rapid and broad application of current knowledge. We are also engaged in the education of health care professionals, and the ongoing quest for new knowledge through medical research, in order to contribute to the quality of health care in the future."

Serving the eastern third of the state, Aurora employs approximately 23,000 individuals. This integrated delivery system now consists of 13 hospitals, 69 clinics with 511 employed physicians, Aurora Home Health, Family Services, and Aurora Consolidated Laboratories. Aurora leadership believes that having all components of health care in a single, seamless system provides a better way to help the population achieve maximum health. It is a system strongly committed to the charitable and service activities that underpin its not-for-profit status, providing \$100 million in charity care in 2001. AHC's primary strategy is Care Management—achieving improved outcomes in disease management and population health and ultimately improving the overall health of communities served. Early successes in Care Management demonstrate that this is a sound strategy that is altering the health of eastern Wisconsin's population in a positive fashion, evidenced in areas such as influenza vaccination rate, outcomes in pneumonia care, and improvement in cardiac care.

The affiliation agreement between UW and AHC creates a partnership approach for the MCC. It is designed as a "service agreement" between the two institutions, whereby Aurora contracts with the UW Medical School for educational, clinical, medical director, and research services. Aurora owns outpatient offices utilized for education, and Aurora employs the clinics' staff. In all, there are 10 academic outpatient clinical office sites in Milwaukee. These sites provide a workshop for Care Management and the testing of new delivery and access approaches. The affiliation is governed by an Educational Policy Committee, with representation from the medical school's Madison-based leaders, Aurora, and the

Milwaukee-based physician leaders and faculty.

Residencies are sponsored by AHC, which has a Graduate Medical Education Committee chaired by the Associate Dean, who also serves as Aurora's Vice President for Academic Affairs. Aurora employs the residents. Faculty physicians and midwives are employed by the UW Medical School through its practice plan. In all, 54 UW faculty and nine certified nurse midwives practice and teach in Milwaukee. There are three departments: OB/GYN, Medicine, and Family Medicine. Each department has a Milwaukee leader, the associate chair. These associate chairs are jointly accountable to their Madison-based department chairs and the MCC Associate Dean. Faculty physicians serve as residency program directors and clinic medical directors. While the focus of the MCC is on primary care, specialty and subspecialty faculty physicians are an important part of education and practice in the areas of geriatrics, oncology, and maternal-fetal medicine.

In all, there are over 100 residents in the Milwaukee-based UW-affiliated residency programs. Students from the UW medical school come to Milwaukee for experiences in primary care, OB/GYN, general and subspecialty medicine experiences, and a host of electives. As of July 2001, UW medical students may elect to spend their entire fourth year in Milwaukee.

Summary of Accomplishments

The following is a cataloguing of the "educational output" of the Milwaukee Clinical Campus, followed by a discussion of the relative value of those accomplishments.

1. Medical Student Education—
Over the past 25 years, the MCC

has educated approximately 2000 UW medical students.

2. Resident Education—535 residents have completed their training at the MCC in the specialties of internal medicine, family medicine, OB/GYN, and psychiatry. Seventy-three (73) fellows have completed training in the Milwaukee UW-affiliated fellowships of cardiology, electrophysiology, gastroenterology, geriatrics, and family medicine. In addition, 437 residents have completed training in Aurora-sponsored unaffiliated programs that are, in part, supported by the MCC infrastructure. These programs include transitional medicine, radiology, nuclear medicine, and surgery.
3. Graduates Practicing in Milwaukee and Other Areas of Wisconsin—139 physicians practicing in the Milwaukee area completed their residency training at Aurora-sponsored residency programs. Approximately 42 percent are practicing in other areas of the state. Over the past 10 years, an average of half of the graduating residents practice in some affiliation with AHC.
4. Direct Patient Care During Training—Over the past 25 years, residents, students, and faculty have participated in over 1 million outpatient visits in the Milwaukee area, primarily in medically-underserved communities. Obstetrical deliveries associated with the teaching programs total nearly 20,000. It is not possible to accurately quantify the amount of inpatient teaching experiences, but this represents an area where full-time faculty and clinical faculty have provided a uniquely valuable learning environment for students and residents. Measures of quality of care have consistently shown that the outcomes

in the academic practices exceed national benchmarks for quality, as does patient satisfaction.

5. Community Outreach—The MCC has always been dedicated to the urban community. This is demonstrated not only in the location of practices in underserved communities, but in the design of curricula and the use of new academic clinical sites as “incubators” for examining new methods of delivering care.

In the curricular arena, this includes a fourth year Urban Preceptorship, an orientation for all students to urban medicine, and an integration of cultural competency training into a variety of standard curricula.

The academic clinical sites are often designed around finding new and better ways for patients to access care. The Madison Street Outreach Clinic is a free care model created in conjunction with Healthcare for the Homeless and the Milwaukee Area Health Education Center. Johnston Community Health Center focuses on total care of patients, and includes vision and dental centers on site. The Clarke Square Family Health Center is located in a supermarket/megamart, which also includes child care, a bank, a food court, and a pharmacy. The Health Center is a blend of primary and urgent care. Wiselives Clinic, located in suburban Milwaukee, focuses on a family practice approach with special emphasis on women’s health and complementary medicine.

The Robert Wood Johnson Health Professions Partnership Program (HPPI) has paired faculty and residents with Milwaukee Public School students at the middle school and high schools levels. In addition to mentoring students, there have

been a number of formal educational offerings for students, such as the Mini-Medical School Week at Sarah Scott Middle School for the Health Sciences.

Critical Assessment of the MCC

The effectiveness of the Milwaukee Clinical Campus should be viewed from a variety of vantage points. Most importantly, it should be evaluated against its original and ongoing mission of education paired with direct provision of care in urban underserved communities. Stakeholders include communities served, learners, UW Medical School and Aurora Health Care.

Advantages

1. The Learners—Feedback from students and residents has been consistently positive through the years. A quality improvement approach is now used to continually improve the experience for students and residents based on their feedback. Objective measures of learner experiences (comparability of exam scores with students who have experiences elsewhere, intraining exams, and board pass rates) all indicate that the campus is functioning according to national standards or above. In addition, residents who choose to stay in the system experience a relatively easy transition to practice.
2. The Communities Served—The communities served have improved access to care (based on clinic location and home visit availability), more emphasis on preventive health and disease management (through Aurora Care Management), and more choices for types of providers/practices than they would have if the MCC did not exist. The primary care model affords improved continuity and earlier ac-

cess to prenatal care. While the effects of community education program by the campus cannot be directly measured, it is safe to assume that these have been positive for the communities.

3. Aurora Health Care—Some advantages to Aurora include the following:

- Graduating residents practicing within Aurora—Graduating residents have joined Aurora Medical Group, private practices, and the faculty practices. These residents are able to start practice with knowledge of the system and community, which allows a smooth transition into active practice in a relatively short time period. Consultants/partners know the physicians from their training.
- Service—The training programs help to provide direct service to the communities served by Aurora. Part of Aurora's commitment to the community has been adequate geographic coverage to allow easy access to care. In Milwaukee's central city and near south side, the academic community clinics serve this role.
- Quality—Objective measures of the academic practices (satisfaction, quality outcomes, waiting times for patients) demonstrate that they are high quality. These practices also provide implementation and measurement sites for Aurora Care Management initiatives. Academic programs also help to attract high quality private health care professionals to the system, many of whom serve as volunteer faculty.
- Finance—The medical education programs are financially viable for the system, espe-

cially when considering federal and state "pass-through" dollars, direct clinical revenue in the inpatient and outpatient settings, ancillary revenue, and grants/donations.

4. Advantages to the UW Medical School include the following:

- Medical Student Training—The MCC is a necessary site for student training, particularly in the areas of obstetrics, medicine, and primary care.
- Mission-Based—The large amount of care to the underserved is consistent with the school's mission and its desire to be a true statewide institution.
- Medical School Accreditation—Accrediting bodies believe that training in a variety of settings is positive for education.
- Population Health—The MCC's emerging expertise in population health is consistent with the medical school's movement in this direction.
- Access to Urban Populations—The important research mission of the UW Medical School will be complete only if broad populations are involved. Milwaukee provides access to some populations unique to the city.

Disadvantages

No model is without disadvantages. The Milwaukee Clinical Campus faces some unique challenges:

1. Single Partner Approach—While the partnership between the UW Medical School and Aurora is not "exclusive," there is a high degree of commitment by both institutions, thereby limiting potential learning experiences outside of AHC, and possibly alienating other potential partners for both Aurora and the medical school.

2. "Town-Gown" Issues—For Aurora, there are occasional issues of competition or disagreement between faculty physicians and other physician affiliates. This situation also exists in Madison and has been evident for almost a century.

3. Limitation of Academic Freedom—While practice within Aurora allows a great deal of flexibility for faculty, it is clearly a different environment than that of a university campus. Faculty are more focused on teaching and practice (advantages to learners) than on research. There is a potential for limitation of academic career options for some faculty. It has been difficult to appoint tenure track faculty in this setting, thereby limiting recruitment at times.

4. Competing while Cooperating—In certain markets in Wisconsin, UW Medical School and AHC are competitors, requiring that the commitment around education be given a special status not affected by other differences.

5. Program Closures—Many clinical and teaching programs on the MCC are experimental, searching for new or better ways to educate or deliver care. Not all programs are successful. Several years ago, the psychiatry program was closed when it did not meet the needs of the learners, the Medical School, or Aurora. While all partners worked through this experience, it tested the strength of the partnership.

Future Opportunities

While the MCC is considered a success by all parties involved, a number of challenges will be encountered in the coming years. These include declining federal reimbursement for education, declining reimbursement for clinical

services, a rapid increase in unreimbursed care in central city Milwaukee, and many market forces that continue to change the face of medicine as we know it. In an attempt to be prepared for changes, a number of strategies are being employed:

- **Flexibility**—The MCC continues to implement new curricula and models of care as the market and medical education endure rapid changes. This may also require abandoning strategies that do not work well.
- **Quality Improvement**—The general approach of the MCC leaders is to continually improve existing programs through feedback and measurement of educational and clinical processes. In addition, the same efforts are directed at improving reimbursement and billing processes.
- **External Funding**—A new focus on alternative funding sources is yielding results. Funding sources include traditional grants, foundation grants, and donations from private foundations and individuals.
- **Research**—While the MCC has been successful in education and clinical care, the research scope

has been limited. In 2001, the Center for Urban Population Health (Center) was created to address this need. This Center represents a partnership between UW Medical School, the University of Wisconsin-Milwaukee, Aurora Health Care, and the communities that we serve. It will focus on combining education with research, specifically looking at educational and health delivery processes in urban Wisconsin. With a major focus on public health, the MCC will help to expand the Aurora-UW Medical School relationship to include many new Milwaukee partners. It will also provide a more disciplined approach to the measurement of outcomes (educational and clinical) in an era when medical education and health care are being challenged routinely to demonstrate better value. In short, this Center helps fulfill the academic mission of the MCC while providing crucial data about better ways to provide access and deliver health care to urban populations.

Conclusions

The Milwaukee Clinical Campus

provides a model of education and clinical delivery, which has been successful for all of the partners when measured by educational and clinical outcomes, financial viability, and service to the community. The original and ongoing mission of the MCC is being fulfilled. We now have a quarter century of progress, creating a basis upon which to build.

Future endeavors will focus on strengthening research and public health expertise, while gaining new knowledge for the communities served, particularly in the area of Care Management/Quality Improvement. The success of the MCC is based on proven outcomes and alignment of strategy with its two parent organizations. The independent strengths of both the UW Medical School and Aurora Health Care help to provide stability not present in many educational environments today.

This model may be reproducible in other settings. Success would depend on flexibility, sustained leadership, alignment of goals, and a focus on quality of all aspects of the educational endeavor.



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The *WMJ* (ISSN 1098-1861) is the official publication of the Wisconsin Medical Society and is devoted to the interests of the medical profession and health care in Wisconsin. The managing editor is responsible for overseeing the production, business operation and contents of *WMJ*. The editorial board, chaired by the medical editor, solicits and peer reviews all scientific articles; it does not screen public health, socioeconomic or organizational articles. Although letters to the editor are reviewed by the medical editor, all signed expressions of opinion belong to the author(s) for which neither the *WMJ* nor the Society take responsibility. The *WMJ* is indexed in Index Medicus, Hospital Literature Index and Cambridge Scientific Abstracts.

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