Greer is the founding chair of the Department of Humanities, Health, and Society and Associate Dean for Community Engagement, at the HWCOM, where he spearheaded a unique concept in medical education, Green Family Foundation NeighborhoodHELP™ (Health Education Learning Program). As the cornerstone of the medical curriculum of the HWCOM, the program sends student teams to visit patients in their homes in underserved communities of Miami-Dade County, preparing them to address the factors that affect the families’ access to health and their health outcomes. Through these household visits, the program provides individuals and communities with a range of services including education, support, and primary health care. A Mobile Health Care Center, staffed by physicians and nurses from the medical school, makes weekly neighborhood visits.

HWCOM has based its curriculum on its ability to prepare our student physicians for the changes that were soon going to be instituted in our country, the disparities that drove our nation’s health outcomes to embarrassing rankings, and the fact that we had not been emphasizing the SDOH and as such population health and public health. We also intended to demonstrate that as part of their medical education, a medical school could actually improve the health of our communities. From here is born the Medicine and Society Strand and the Department of Humanities, Health and Society to bring it all together.

As a new millennium school, we have been able to develop a new and unique curriculum based on the competencies we expect from our students upon graduation, including social responsibility. The curriculum has five strands: Human Biology, Disease Illness and Injury, Clinical Medicine, Professional Development and Society and Medicine. All strands are integrated and four years in duration. The flagship of the College is the Medicine and Society Strand, where students go from the ethical foundations of healthcare to the Neighborhood HELP in the community. The Strand is housed in the Department of Humanities, Health and Society with two divisions, Policy and Community Development and Family Medicine. It is the largest Department at the College, with Social Scientists, Physicians, Nurses, Social workers, lawyers and ethicist. All (including the physicians) are paid through core funding, freeing them to teach, be the mentors and role models for our students and not depend on clinical care for salary. They do this with the students from the classroom to clinical care in NHELP or clerkship, teaching clinical skills, being course directors for our courses (including IPE) and certain specialties in the second period. Thus they are free to teach and mentor students and care for the household patients. They are the most important faculty at the COM, emphasizing the importance of primary care.

The SDOH, population health and PH is taught in the 2 main courses in the first and entire second periods of the Strand Medicine and Society. First they see it in Social medicine, where they get the bases of population health with SDOH, disparities and cultural competencies and population health; second they have classes during the Community Based Physicians, where they are taught the bases of CBPR, Community Oriented primary care, health literacy, to environmental and occupational health (to name a few), neediest households (referred by our community partners) and are responsible for their care till they graduate (3 and ½ years). Here they practice Household centered care, deal with the SDOH and their medical consequences and how they affect therapeutic interventions. In the strand Professional development, they are concurrently taught Policy and Health systems, and they can integrate policy, health systems and population health in dual classes with law students. In short the students are not only taught population health and public health, but see it first hand in their community involvement; over 75% of the students choose a population based issue to do their research project and all have to do a community base practicum to graduate.
Arthur Kaufman, a panelist, is the Vice Chancellor for Community Health at the University of New Mexico. He was Chair of Family and Community Medicine for 15 years at that institution. He has had a long-term interest in the health of communities and how the resources of the academic health center can be mobilized to address priority community needs.

After years of innovative medical education model-development at the undergraduate level---problem based learning and community oriented learning, it became apparent that to sustain undergraduate education innovations, there needed to be a complementary innovation at the graduate level. And for innovations in medical education to have long term meaning, there had to be comparable innovations in clinical service.

While innovations in medical education led to increased recruitment and retention of graduates in rural and underserved areas of the state, the impact on community health was minimal. Social determinants—e.g. housing, food, education, social inclusion had more to do with health than the presence or absence of doctors or nurses. Public health acted upon this perspective, but it was severely underfunded. The large, well-funded, under-performing healthcare system would have to step up to the plate and contribute to the health of the public as well as the health of individuals cared for in offices and hospitals.

The institution has created two important initiatives relevant to this Webinar. First, all medical students at the University of New Mexico are obligated to achieve a Certificate of Public Health during their medical course. The curriculum for this Certificate earns 15 credits and is transferrable to the School’s MPH program. It’s goal is not to have all students earn MPHs, but to build within each student, regardless of health field, the capacity to identify and address community health problems.

The second program involves the implementation of the University of New Mexico’s Vision Statement: “Working with Community Partners, the University of New Mexico Health Sciences Center will help New Mexico make more progress in health and health equity than any other state by 2020.” All components of the Health Science Center—colleges and hospitals, and all mission areas—education, clinical service, research and health policy are involved. Each county’s health-- determinants and outcomes are measured annually with state health rankings recorded and disseminated widely.
The MD curriculum for all medical students includes:

- A robust Population Health Course in the first semester of medical school, where students not only learn more traditional epidemiology and biostatistics, but also gain an understanding of foundational public health principles, taught through small group, case-based learning.

- A two-year series of Public Health Integrative Cases where 1st and 2nd year medical students examine an issue from many perspectives, including basic science, clinical, public health, social/ethical issues and health care systems. The cases bring students together with community public health practitioners as well as clinicians and scientists across the campus. Through small group active, experience-based activities and faculty-led small group discussions, students discover many factors influencing health and wellbeing, the interconnections between those factors, and important roles for physicians in promoting health for both individuals and populations that extend beyond traditional ideas of clinical medical care. The choice of topics highlights significant public health problems and issues in Wisconsin and the U.S. including Determinants of Health (explored through the lens of the Emergency Department), Health Birth Outcomes, Drunk Driving, Poverty, Tuberculosis, Costs of Care and Health Policy Advocacy.

- Third year primary care clerkships and fourth year preceptorships throughout the state where all students perform community health assessments and engage in community health projects.

- Core Days for third and fourth-year students which include topics such as Skills and Systems to Impact Health Disparities and Emergency Preparedness as well as systems-based approaches to Palliative Care and Unintended Outcomes (medical errors/patient safety).

- Fourth-year public health electives covering an array of public health issues including health policy, prevention, teamwork and advocacy.

Pathway of Distinction in Public Health
Approximately 30-50 students per class are selected to participate in the Pathway which is a four-year longitudinal experience for medical students interested in learning more about how to be both a practitioner of public health and medicine. The pathway includes electives in public health, a field experience/project related to public health, and a final capstone paper. These students are recognized as “Graduating with Distinction in Public Health” in their Dean’s letter.

Public Health in Special Populations
For selected students, two programs provide a focus on public health in rural and urban populations, combining clerkships and electives with community and public health experiences, integrating clinical medicine with public health training. The Wisconsin Academy for Rural Medicine (WARM) is a unique, rural core curriculum program for 26 students per year with the goal of increasing the number of physicians who practice medicine in, and help improve the health of, rural Wisconsin communities. Students relocate during their 3rd and 4th years to small rural community sites across Wisconsin. Training in Urban Medicine and Public Health (TRIUMPH) prepares 16 medical students per year to become community-responsive physicians committed to promoting health equity for urban underserved populations while they are located in Milwaukee for years 3 and 4 of their MD training.
Southern Illinois University School of Medicine was awarded the RMPHEC grant in 2006 (Co-PI: Tracey Smith) to develop a Population Health and Prevention (PHP) curriculum. Being a medical school that uses a modified problem-based small group model of education, Dr. Smith and her peers focused on developing a longitudinal streamer of population health and prevention educational opportunities that integrated tightly into the existing curriculum. This was done to ensure sustainability and translation of knowledge into real practice. The curriculum was established with three main components.

The first component was the development of learning issues based off of the population health competencies. Curriculum mapping for each of the four years of medical education (including topics, curricular hours, and testing) was completed to assess for integration of the learning issues. Inclusion of curricular content as part of the standard assessment for evaluative progression was key. Planned redundancy of curriculum content and specific skill sets were delivered and assessed in different years to improve longitudinal learning and retention.

There are three main learning issues addressed in the first year of the curriculum: 1) clinical epidemiology and biostatistics, 2) role of public health and prevention in the United States Healthcare System, and 3) societal contexts of the practice of medicine including preventive medicine. Curriculum time is 5 hours face to face. Small group case probes, multiple choice self-assessment questions, and multiple choice exam questions are included in each of the three units in year 1. Approximately 8-10% of multiple choice questions are on a PHP related topic.

Year 2 learning issues include 1) using medical learning resources and approaching the medical literature, 2) societal contexts of the practice of medicine including preventive medicine, 3) understanding and participating in health policy process, 4) clinical epidemiology and biostatistics, 5) research design and methodology, 6) patient safety and quality assurance, and 7) introduction to translational research. Four main themes have been established to fit into the pre-existing curriculum units. For the hematology, immunology and infection unit, the theme is vaccine-preventable illness. The second unit of year two curriculum is the cardiovascular, respiratory, and renal unit, and the theme for PHP is cardiovascular disease. Neuromuscular behavior unit occurs as the third unit in the year two curriculum and the PHP theme is neurologic injury prevention. The final unit in the year two curriculum is endocrine, reproduction, and gastrointestinal and the PHP theme is hormone replacement therapy.

Curriculum time in year 2 around these themes is a total of 7 hours. Also during each unit of year 2, a clinical question is posed for students to perform a structured literature search using various databases/resources (e.g.- PubMed) and evidence-based evaluation of their chosen reference (Critical Appraisal Tool - CAT). At the end of the unit the students are tested using a similar method. There are two face to face (one hour total) required sessions and two electronic training required sessions (one hour total) for the instruction provided on structured literature searching and evaluation.

Learning issues in year three include 1) access to healthcare, 2) advanced informatics, 3) clinical epidemiology, 4) evidence-based medicine, 5) health literacy, 6) translational research, 7) health law and policy, 8) bioethics, 9) cost-effectiveness analysis, and 9) evidence review. Mapping has been done to identify and encourage incorporation of
PHP-related sessions into all clerkship experiences. For example, in the Family & Community (FCM) Clerkship a “PubMed Search and Critical Appraisal Tool” session, assignment, and testing that reinforces the concepts taught in the year 2 CAT curriculum has been integrated. Also the FCM clerkship has sessions on Community Oriented Primary Care, Health Literacy, Social Determinants of Care, Health Disparities, Population Health, Shared Decision Making/Patient Education, Chronic Disease Care Model, Pillars of Medical Ethics, QI PDSA, Advanced PubMed Search, and Care for Patients with Disabilities.

The second component was the development of additional individual student opportunities for further study on public, population, and preventive health topics during the medical students’ elective periods of education. Substantial opportunities were developed, including a Community Outreach and Education Specialty Pathway. Learning issues addressed in year four elective offerings include quantitative methodology, public health, prevention, critical appraisal of the literature, health care finance, health literacy, structure/function of the United States Health Care System, and health policy and physical advocacy. Constant assessment for gaps in education and future trends are monitored and an active approach to developing electives that address these gaps and trends are taken. Over the past 5 years over 12 new electives have been created to address these gaps and trends. These include electives on topics of community needs assessment, global health, oral health, patient education/health literacy, telemedicine, nutrition, and physical activity. Over 75% of fourth year students enroll in one or more of the PHP directed electives. The Community Outreach and Education Specialty Pathway is in the second year of existence. This pathway consists of at least 4 weeks of required electives (students can choose from a list of over 26 approved electives), 35 hours of documented volunteer community service learning, and completion of a capstone project.

The third component was the development of a student interest group focused on community outreach and education and global experiences. This student group has provided leadership in the development and expansion of a Free Health Clinic, provision of over 400 education sessions to local schools, community groups, and clients over the past 5 years, and for the development of a student based yearly medical mission trip.

One of the key challenges for the PHP curriculum at SIU SOM is that none of the face to face PHP sessions in year 1 or year 2 are required.