Board of Governors Health Initiatives Committee

Report on Issues in Health Care Delivery

in the State University System

September 2, 2015

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Executive Summary

In 2015 the Board of Governors Health Initiatives Committee undertook an Environmental Scan in order to better understand the status of health care as it pertains to the twelve institutions of the State University System (SUS). Prior to initiating the Environmental Scan, the Health Initiatives Committee agreed on a Work Plan that would focus on three health-related areas: health education, health care delivery and health-related research. This report focuses on health care delivery. It documents the results of a review of several reports regarding current and future health care practices, incorporates the advice and counsel of the Health Initiatives Committee Advisory Group, and presents the results of a survey administered to each of the twelve SUS institutions regarding health care delivery.

It should be noted that the majority of the responses to the survey of the SUS institutions came from the six institutions with a medical school, and were focused on activities of the colleges of medicine in those institutions, even when other colleges within the institutions may be providers of health care.

This report attempts to answer six key questions with regard to health care delivery. The questions and the key findings from the body of the report are provided below.

<u>Question One</u>: What are the emerging and evolving trends in health care delivery? How will they affect the State University System?

A review of the literature on emerging and evolving health care, combined with input from the survey results from the SUS institutions and counsel from the Health Initiatives Committee Advisory Group, suggests that there are at least eight key trends: (1) an increase in collaborative models of practice that require a patient-centered, team-based approach; (2) a change in training settings from traditional hospital-based to community settings; (3) a greater employment of physicians in practices owned or managed by hospitals or other organizations; (4) a greater emphasis on values-based care and less on the fee-for-service model of reimbursement; (5) an expanded role for Advanced Registered Nurse Practitioners, physicians' assistants, and other health care delivery personnel other than physicians; (6) an expanded role of technology in the delivery of health care services; (7) the increasing acknowledgement of dental health as a key contributor to the overall health of the community and (8) the emergence of personalized medicine and pharmacogenomics. In addition, payment reform is an underlying theme for each of these health care delivery trends.

Health care in the United States has evolved from the days of the solo physician practice to more collaborative models of practice. Advances in technology, the complexity and prevalence of chronic disease management, and the complicated health care reimbursement process have all led to the need for a more systematic approach to the provision of health care. Almost all of the new models of care require a more values/outcomes-based, patient-centered, team-based approach to health care, using emerging technologies. More and more physicians are employed in practices owned and/or managed by hospitals, managed care organizations, or some other entity.

Areas of change among SUS institutions included greater use of electronic health records, the use of telemedicine, increasing opportunities for inter-professional/interdisciplinary training and care, new faculty practice plan development, and the expansion of primary and specialty care services. Electronic health records, which may be shared among those with a need to know, improve the coordination and delivery of efficient, cost-effective and quality care. SUS institutions identified a wide array of changes or planned changes to their educational programs to better prepare graduates for the changing health care delivery system.

<u>Question Two</u>: What health care delivery is currently provided within the State University System? What factors affect that delivery?

In the 2013-14 fiscal year, universities reported nearly 3,000,000 inpatient and outpatient visits. Approximately 2.6 million were outpatient visits, and nearly 300,000 were inpatient visits. This number is likely to grow as the newer medical schools expand their health care services. Another reason for growth is that the health care delivery model is changing to one based on preventative and preemptive care (i.e., chronic disease management). Half of the institutions reported having a faculty practice plan, which is the entity that serves as the structure for receiving clinical practice revenues generated from services provided by faculty clinicians. Two schools currently with neither faculty practice plans nor medical schools reported that they are having preliminary discussions or are considering starting a faculty practice plan.

Regarding the health care delivery services, SUS institutions tend to provide health care services close to home; extending services beyond the local area is the exception rather than the rule. Health care services are provided in a number of settings in close vicinity to the parent institution, as well as in the towns, cities, and communities immediately surrounding the institution. Some institutions extend services statewide and even out-of-state. Sites of services exhibit a wide variety of settings, including outpatient clinics, federally qualified health centers, county health departments, private physician practices, community hospitals,

correctional facilities, academic health centers, VA hospitals and clinics, nursing homes, rehabilitation centers, and student health centers.

When asked to identify the top five areas of specialized health care delivery they provide, the institutions identified a diverse group of specialized services ranging from those with state, national, or international reputations for excellence; those with the greatest success in generating clinical revenues; and those identified as most urgently needed. When asked to describe the greatest areas of health care needs, access to care was the area most often identified. Other needs identified included preventive and acute health care services to the underserved, mental health care/substance abuse services, primary and specialty care physicians, and population health. In addition, two institutions referenced dental care. The latter is particularly important because of its role as a causative or contributing factor in several health conditions. According to the Florida Department of Health's website,

> Oral health is vitally important to overall health and well-being. Research has shown a link to diabetes, heart and lung disease, stroke, respiratory illnesses and conditions of pregnant women including the delivery of pre-term and low birth weight infants. Dental disease is largely preventable through effective health promotion and dental disease prevention programs. Collaboration with medical partners to provide compelling messaging and preventive care is key to improving the overall health of all Floridians.[1]

The most often identified perceived barriers to patient care delivery were lack of adequate numbers of clinical faculty, increased workload requirements, Graduate Medical Education funding, and the availability of preceptors for health care programs. The most often cited critical areas of health care delivery that are not currently or sufficiently addressed by Florida universities were mental health, access to affordable health care and physician shortages, lack of residency positions, care of the elderly, and access to dental care for the uninsured.

<u>Question Three</u>: How is the delivery of health care emerging and evolving in ways that will have an impact on the preparation of health care workers by Florida universities?

With the passage of the Affordable Care Act, the concepts of Accountable Care Organizations (ACO) and Patient-Centered Medical Homes (PCMH) became much more widespread. The Patient-Centered Medical Home is a model of

[1] Dental Health (n.d.). Retrieved August 13, 2015 from the Florida Dept. of Health, http://www.floridahealth.gov/programs-and-services/community-health/dental-health/index.html

primary care that is patient-centered, comprehensive, team-based, coordinated, accessible, and focused on quality and safety. An Accountable Care Organization is a network of doctors and hospitals that share financial and medical responsibility for providing coordinated care to patients in hopes of limiting unnecessary spending. There has been significant growth in the number of practices that qualify as Patient-Centered Medical Homes as well as the number of Accountable Care Organizations over the past three to four years. Orlando has 17 Accountable Care Organizations. Only two institutions (UF and UCF) indicated that they are currently a Patient-Centered Medical Homes model, and only one (UF) indicated that it is part of an Accountable Care Organization. However, an additional five institutions indicated that they plan to become Patient-Centered Medical Homes models, and three institutions plan to become part of Accountable Care Organizations in the next five years. It is possible that the delayed response of SUS institutions in entering this health care delivery model is because the traditional structure of academic health centers already had some of the elements of Accountable Care Organizations (network of doctors and hospitals that share financial and medical responsibility for providing coordinated care to patients). Six institutions are already using electronic health records and an additional institution plans to begin use in the coming years.

With the increasing focus on prevention and health of the population, Florida's SUS institutions are well-positioned to research and promote the ways to address health disparities and chronic disease prevention. The SUS institutions can potentially benefit from the successes in this area by other entities in the United States, such as the Centers for Disease Control. As noted by Lee and Paxman,

> The three main determinants of health include: behavior and lifestyle, environmental exposure, and health care. It has been noted behavior and lifestyle accounts for 80 percent of premature mortality, environmental exposure for 20 percent and health care for 10 percent.[2]

Another trend that should be noted is the call from several health care organizations to eliminate unnecessary procedures and treatments in the name of "defensive medicine." The American Board of Internal Medicine Foundation's "Choosing Wisely" program is one such initiative. It "aims to promote conversations between clinicians and patients by helping patients choose care that is: (1) Supported by evidence, (2) Not duplicative of other tests or procedures already received, (3) Free from harm and (4) Truly necessary."[3] There is evidence that employing these behaviors reduces cost and reduces morbidity from unnecessary medical interventions; however, the risk and fear of malpractice are barriers to full acceptance of these initiatives.

[2] Lee P. & Paxman D. 1997. Reinventing Public Health. Annual Review of Public Health 18:135.
[3](n.d.). Retrieved August 13, 2015 from http://www.choosingwisely.org/about-us/

<u>Question Four</u>: How, if at all, are accrediting bodies for health care programs altering their standards to align with emerging and evolving changes to health care delivery?

Among the ways in which accrediting bodies are aligning their standards with emerging and evolving changes in health care delivery are the addition of standards requiring inter-professional collaborative training for students, changes in curriculum and pedagogy that affect the way faculty teach, an emphasis on outcomes measures in student evaluation over process, and the provision of faculty development and support for student evaluation.

The Liaison Committee on Medical Education (LCME) now has a standard requiring inter-professional training within the medical education program of accredited medical schools. SUS medical schools referenced several Liaison Committee on Medical Education standards that directly relate to changes being made in the curriculum. These include Standard 7.9 on Inter-professional Collaborative Skills, as well as the standards regarding curriculum content, specific skills, attitudes and behaviors students must demonstrate, types of patients and clinical settings students must encounter, and faculty qualifications. Also mentioned are standards that directly impact faculty members, such as the move to more small group learning, incorporation of quality improvement and safety education into the curriculum, and the increasing use of simulation.

<u>Question Five</u>: Given that health care delivery is changing, should the current mix of didactic versus clinical in health-related curricula be modified?

The quick answer is "yes." The reasons why include changes in curricula and its delivery, the needs of a more diverse student body, and the eventual placement of graduates in a variety of communities and settings that will require understanding of the needs of underserved populations. Curriculum reform is prevalent throughout the country, and Florida schools are part of the trend. Review of the medical school curricula in the state reveals that more education is occurring in small groups, clinical learning centers, simulation centers, and in clinical preceptorships in the community. Therefore, the question is no longer "should," but "how quickly" curricular modification is occurring and what the improved outcomes of the changes will be.

<u>Question Six</u>: What technological changes in health care delivery will require concomitant changes in health care education?

It is well recognized that greater inter-operability of electronic health records is needed to allow increased sharing of medical information with teams of health professionals in order to facilitate data retrieval for quality and billing purposes,

and to help alleviate patient safety concerns. Increased use of telemedicine allows interactive communication between the patient and the physician or practitioner at a distant site. This type of interaction can lead to greater efficiencies, including improved access to care and overall health. Telemedicine represents a change in the health care delivery method, but not necessarily in how physicians practice. The lack of reimbursement has limited the use of telemedicine services in Florida. It is premature at this time to know how much of an emerging or evolving influence telemedicine will have in Florida. Four institutions are already using telemedicine, and three others plan to begin using it in the next five years.

Summary

Health care is provided by SUS faculty members in academic health centers, community hospitals, VA hospitals, outpatient clinics and physician offices, health departments, and community health centers. Each medical school has a faculty practice plan. The structure of these plans differs based on the nature of affiliated partnerships (VA hospitals, private hospitals, public hospitals, and community health centers) and stage of development. The newer medical schools are still developing practice plans, while the older schools have mature plans which contribute significantly to the education of students and residents, as well as to the revenue streams of the medical schools. The practice plans within the SUS face the same challenges as practices in the community. Combining the increased use of teams to provide care, expanding the use of technology (electronic health records, telemedicine), and providing care to more groups and underserved populations will likely shift the types of providers, setting of services, and payment structure for health care in the future.

Florida's particular demographics will, in and of themselves, affect health care delivery in the future. First and foremost, Florida is continuing to grow, and this growth will increase the stress on Florida's health care infrastructure. Florida's demographics are not expected to stabilize or to decrease, as other states project. Instead, all projections show continued increases in population as far out as these projections are made. Further, while the historical trend of retirees moving to Florida is continuing, pre-retirees are now also moving to Florida in greater numbers. Florida is trending toward a population that is bimodal, with large percentages of the population aged 24 and below, and large percentages aged 65 and above. In addition, Florida's health care needs are not evenly distributed throughout the state. Rural areas, in particular, can be under-supplied, even though the state as a whole may have a sufficient supply in any given health care occupation. Florida's health care delivery infrastructure will be challenged by these demographics in the years to come, and it will be imperative that the SUS

institutions best position themselves as part of the solution to the challenges ahead.

Introduction

In 2015 the Board of Governors Health Initiatives Committee undertook an Environmental Scan in order to better understand the status of health care as it pertains to the twelve institutions of the State University System (SUS). Prior to initiating the Environmental Scan, the Health Initiatives Committee agreed on a Work Plan that would focus on three health-related areas: health education, health care delivery, and health-related research. This report focuses on health care delivery.

There are various models for health care delivery within the SUS. While acknowledging that the environment of health care delivery SUS graduates enter will have an impact on their practices, there are some best practices that should be shared among the SUS institutions. As graduates of SUS programs move into the workforce, these practices should follow them.

Purpose of the Report

The purpose of this report is to document the results of a review of several reports regarding current and future health care practices, to incorporate the advice and counsel of the Health Initiatives Committee Advisory Group, and to present the results of a survey administered to each of the twelve SUS institutions regarding health care delivery.

To inform the report and survey as part of the Environmental Scan, the following questions were developed for exploration:

1. What are the emerging and evolving trends in health care delivery? How will they affect the State University System?

2. What health care delivery is currently provided within the State University System? What factors affect that delivery?

3. How is the delivery of health care emerging and evolving in ways that will have an impact on the preparation of health care workers by Florida universities?

4. How, if at all, are accrediting bodies for health care programs altering their standards to align with emerging and evolving changes to health care delivery?

5. Given that health care delivery is changing, should the current mix of didactic versus clinical in health-related curricula be modified?

6. What technological changes in health care delivery will require concomitant changes in health care education?

Description of the Survey

The purpose of the survey was to assist in the Environmental Scan conducted this year to inform the Board of Governors' Health Initiatives Committee about the opportunities and challenges associated with health care delivery in the State University System. For the purpose of the survey, emphasis was placed on health care services provided by faculty and staff of the twelve SUS institutions. This included those services provided within, but not necessarily limited to, academic health centers, community hospitals, faculty practice plans, affiliated physician practices, health departments, community health centers, and surgery centers.

Survey Methods

To gauge the level of health care delivery currently being provided by faculty members in the State University System, a 16 question survey was sent to each of the 12 SUS institutions. Of the 11 schools responding to the survey, five reported none to very limited activity in the area of health care delivery (University of West Florida, New College, Florida Gulf Coast University, University of North Florida, Florida Agricultural and Mechanical University). Florida Polytechnic University did not respond, given its short time of existence.

It should be noted that the majority of the responses to the survey came from the six SUS institutions with a medical school, and were focused on activities of the Colleges of Medicine in those institutions, even when other colleges within the institutions may be providers of health care. Four of the universities reporting have relatively new or very small practice plans, mainly due to the fact that their medical schools have been in existence 15 years or less (Florida Atlantic University, Florida International University, University of Central Florida, Florida State University). Two of the universities have very mature faculty practice plans and reported significant activity (University of South Florida, and the University of Florida – Gainesville and Jacksonville campuses).

Because of the evolving nature of health care delivery in the nation, state, and within the SUS, the survey questions did not flow directly from the questions developed for the Environmental Scan. Summarized results from the survey are included in the information presented below. An appendix including summary

data tables and individual responses from the institutions is included at the end of this report. Although there is overlap between the subject matter in several of the sub-questions, an attempt was made to address each question individually.

<u>Question One</u>: What are the emerging and evolving trends in health care delivery? How will they affect the State University System?

A review of the literature on emerging and evolving health care suggests that there are at least eight key trends:

- An increase in collaborative models of practice that require a patient-centered, team-based approach
- A change in training settings from traditional hospital-based to community settings
- A greater employment of physicians in practices owned or managed by hospitals or other organizations
- A greater emphasis on values-based care and less on the fee-for-service model of reimbursement
- An expanded role for Advanced Registered Nurse Practitioners, physicians' assistants, dentists, physical therapists, occupational therapists, pharmacists, social workers, Certified Nurse Midwives, Certified Registered Nurse Anesthetists, and patient navigators
- An expanded role of technology in the delivery of health care services
- The increasing acknowledgement of dental health as a key contributor to the overall health of the community
- The emergence of personalized medicine and genomics. Table 8 in the SUS Survey Summary shows that two institutions responded that they are currently using personalized medicine and three others are planning to use it in the next five years.

Health care in the United States has evolved from the days of the solo physician practice to more collaborative models of practice. Advances in technology, the complexity and prevalence of chronic disease management, and the complicated health care reimbursement process have all led to the need for a more systematic approach to the provision of health care. Almost all of the new models of care require a more patient-centered, team-based approach to health care, using emerging technologies. Typically, training of physicians and other health care professionals tends to lag behind practice reform, partly because their training is focused in traditional hospital-based settings. In 2001, Green, et al. highlighted the fact that most health care is provided in the community setting. Green's article pointed out that, in a given month, only 8 of 1,000 patients will be hospitalized, and less than one of them will be hospitalized in an academic

health center. The other patients who seek treatment do so in community settings.[4]

Trends show that the practice style of physicians is changing significantly. More and more physicians are employed in practices owned and/or managed by hospitals, managed care organizations, or some other entity. In 2010, Medical Group Management Association found that more than 65 percent of established physicians and 49 percent of physicians coming out of training were placed in hospital-owned practices. Health care delivery has become more and more complex over time. Reasons suggested include the fact that inpatients tend to be much sicker and there is an increased burden of chronic disease.

An emphasis on quality is linked to changes in technology that are (1) giving patients more access to medical information, including their own records as well as vast internet resources, and (2) increasing transparency around care outcomes (via such tools as provider report cards). The quality of one's care can increasingly be gauged by the health outcomes across a population (population health). As a result, the health care industry will continue to see growth in the patient-centered medical home, need for patient navigators to help get them through the system, and the need to measure and report health outcomes. Students need to be prepared to practice in a climate where patients and their families demand access to information, shared decision-making, and transparency. Physicians will be operating in a world of many experts and will need to coordinate and communicate with providers at different levels, as well as patients and their families. As technology improves the ability to compare and contrast outcomes, formalize best practices, and establish more standardization of care, providers will not be able to hide or continue poor practices. Providers will need to better understand population health, to understand and respect the need for communication, and to have the ability to coordinate, advocate, and manage patient care.

Addressing the impact of electronic communications also requires a focus on the pros and cons of such communication. The role of privacy and what it will mean in the future has to be considered. On the "pro" side, platforms like Facebook, Twitter, and Instagram can provide a means of efficient communication with patients. In addition, examples are emerging of the formation of worldwide communities of patients with rare chronic diseases. Examples also exist of patients who are having rare diseases diagnosed on social media simply by posting pictures or listing of symptoms and receiving feedback from others. On the "con" side, the risk and fear of medical malpractice have to be part of the

[4] L.A. Green, G.E. Fryer, Jr., B.P. Yawn, D. Lanier, and S.M. Dovey - The Ecology of Medical Care. NEJM. 344(26):2021NEJM. 2021-5, 2001 Jun 28.

equation with increased use of electronic communication. Also, adherence to the patient's and society's definition of privacy and confidentiality must be maintained.

The expanded roles of Advanced Registered Nurse Practitioners and physician assistants in patient care are much better recognized as key providers in the delivery of patient care. The roles of other health care personnel (physical therapists, occupational therapists, pharmacists, dentists, social workers, patient navigators, Certified Nurse Midwives, and Certified Registered Nurse Anesthetists) are also essential.

In addition to the role of new technologies in communicating with patients and other providers, advanced technologies in the direct treatment of patients will also impact health care delivery in the future. Use of new devices and technology such as robotics is leading to shorter hospital stays, and in some cases (e.g. orthopedic procedures) is moving treatments from inpatient to outpatient settings.

Pharmacogenetics is also part of an emerging trend in the provision of health care called Personalized or Precision Medicine. This technology will allow health care providers to direct diagnostic and therapeutic modalities to the individual patient. With the knowledge of the specific genetic make-up of the patient, it is possible to target diagnostic decisions, devise treatment options and monitor the effects of treatment in a much safer, efficient and cost-effective manner. As Dr. Francis Collins describes in the *Journal of the American Medical Association*, this "moves clinicians away from making patient care decisions based on the experiences of the average patient to more precise decisions based on the individual patient."[5] Early work using pharmacogenomics has focused on cancer diagnosis and treatment. In addition, the costs of genetic testing and the lack of insurance coverage for it put this technology out of reach for most patients in the early stages. However, the price of testing has been steadily declining, and this statement from the Mayo Clinic sums up the current status of pharmacogenomics:

> Although pharmacogenomics has much promise and has made important strides in recent years, it's still in its early stages. Clinical trials are needed not only to identify links between genes and treatment outcomes but also to confirm initial findings, clarify the meaning of these associations and translate them into prescribing guidelines. Nonetheless, progress in this

[5] Collins, FS. View From the National Institutes of Health. JAMA. 2015;313(2):131-132. doi:10.1001/jama.2014.16736.

field points toward a time when pharmacogenomics may be part of routine medical care.[6]

The SUS institutions will need to ensure that they are producing the professionals with the appropriate skill sets to meet the demands of the future health care delivery system.[7] Five institutions responded that the delivery of health care in their facilities had changed in recent years. Areas of change among the five institutions included:

- greater use of electronic health records, including Computerized Physician Orders;
- expanded use of telemedicine;
- increasing opportunities for inter-professional/interdisciplinary training and care;
- expanded and enhanced relationships with community partners;
- new faculty practice plan development;
- expanded clinical training sites, including community health centers;
- expansion of primary and specialty care services;
- increased emphasis on metric-driven continuous improvement in clinical quality and service outcome; and
- increased emphasis on value, i.e., optimal care without unnecessary costs.

Institutions were also asked if they had changed or planned to change any of their educational programs to better prepare graduates for the changing health care delivery system. Responses included:

- more opportunities for inter-professional training and care teams;
- implementation and/or expansion of telemedicine services;
- promotion of values-based, patient-centered care;
- renewed emphasis on quality and safety and including residents in the initiative;
- the need to expand experiences in geriatrics, rehabilitative medicine, and primary care; and
- formal training in the use of the electronic health records and medical informatics;

[6]How does pharmacogenetics work in practice. (n.d.). Retrieved August 13, 2015 from the Mayo Clinic, http://www.mayoclinic.org/healthy-lifestyle/consumer-health/in-depth/personalized-medicine/art-20044300?pg=2

[7] For additional information on gaps in the health care workforce, see "Supply/Demand Workforce Gap Analysis on Health-Related Programs as Part of the Environmental Scan of the Board of Governors Health Initiatives Committee," available at http://www.flbog.edu/about/_doc/health-initiative-committee/Gap-Analysis-Report.pdf

- expanded educational focus in the areas of population health, personalized and precision medicine, and health policy;
- more emphasis on boot camps at the end of third and fourth years to prepare students for their residencies;
- the need to incorporate more content regarding patient safety, epidemiology, and practice of medicine within the educational program;
- more opportunities to practice in a patient-centered medical home environment; and
- for nursing education, the addition of community-based care in the curriculum, partnering for service delivery, consideration of new concentrations in the Master of Science in Nursing program, the purchase of electronic health records for student use, the addition of residencies for Doctorate of Nurse Practitioner students, and more evidence-based practice projects for undergraduates.

Payment reform is of significance in each of these trends. As alternative payment models are deployed, providers of health care, including those in the SUS, must ensure that their practice structure meets the requirements to participate in these new models. These new payment reforms are based on provider performance, particularly in the areas of quality care, patient safety, efficiency and reduction of unnecessary spending. According to the Agency for Health Care Research and Quality, "eighty-six percent of all health care spending in 2010 was for people with one or more chronic medical conditions."[8] Preventive care and early diagnosis will be critical in managing chronic diseases and in managing resources. Advanced practice nurses, physician assistants and other health care professionals will be part of the teams providing this care.

Florida's medical schools play a vital role in caring for patients served by Florida's Medicaid program. Faculty physicians and practitioners provide essential primary and specialty medical care in clinics, teaching hospitals, health departments and other health care facilities, providing annually more than two million office visits and encounters to patients served by the Medicaid program. Florida's medical school physicians and practitioners have received Medicaid supplemental funding since 2004-05. As reflected in the Agency for Health Care Administration's April 20, 2015 Low Income Pool (LIP) Amendment Request,[9]

[8] Gerteis, J.; Izrael, D.; Deitz D.; LeRoy. L.; Ricciardi, R.; Miller, T.; & Basu, J. Multiple Chronic Conditions Chartbook. AHRQ Publications No, Q14-0038. Rockville, MD: Agency for Healthcare Research and Quality. April 2014. Accessed November 18, 2014.

[9] Florida Managed Medical Assistance Program. 1115 Research and Demonstration Waiver Public Notice Document. Low Income Pool Amendment Request. Retrieved August 13, 2015 from the Florida Agency for Healthcare Administration, http://ahca.myflorida.com/medicaid/statewide_mc/pdf/mma/Public_Notice_Document_LIP_Amendment_Req.pdf.

teaching physicians and practitioners employed or under contract with Florida's medical schools were added to the Low Income Pool (LIP) program for the period July 1, 2014 to June 30, 2015. Budget authority for medical school physicians is currently provided in the amount of $204.5 million under the physician supplemental payment program.

Florida's medical schools contribute a substantial amount of medical resources to care for underserved, uninsured, underinsured, rural and inner-city patients. Medical schools further provide significant services for high-risk patients, including high-risk neonates, the elderly, and other persons having complex medical needs. Appropriate Medicaid funding is key to the ability of the medical schools to continue providing care that is needed. Services to the state's Medicaid population by medical schools having well-established faculty practice plans have continued to grow, and medical schools with new and emerging faculty practice plans are building additional programs that can enhance the state's capability to provide access and serve patients in the Medicaid program.

<u>Question Two</u>: What health care delivery is currently provided within the State University System? What factors affect that delivery?

A number of models of health care delivery exist in the SUS. To specify the scope of these models, SUS institutions were asked to (1) describe the nature of their faculty practice plans if they had one; (2) define their health care delivery service area; (3) describe the communities they serve; (4) describe the settings in which they provide health care services; (5) identify the top areas of specialized health care delivery they provide; (6) provide the number of outpatient and inpatient visits to institutions served by the institution's health care providers; (7) describe the greatest health care delivery needs in their service area and statewide; (8) describe their perceived barriers to patient care delivery; (9) state the biggest challenges/opportunities with regard to health care delivery; (10) provide a list of resources they use to track health care delivery needs in their service area, as well as resources they plan to use in the future; and (11) describe critical areas of health care delivery that are not currently or sufficiently addressed by Florida universities or their affiliated partners, and should be. The results of the survey indicated that:

- Half of the institutions reported having a faculty practice plan, which is the entity that serves as the structure for receiving clinical practice revenues generated from services provided by faculty clinicians. These plans are set up as 501C.3 not-for-profit entities per Florida Statutes Section 1004.28, and are under the control of the Boards of Trustees of the universities. Of the six schools with a faculty practice plan, three of them only serve the Colleges of Medicine, while the other three include other

units within the university. All six of the universities with Colleges of Medicine have faculty practice plans. Two of the universities that currently have neither a faculty practice plan nor a medical school reported that they are having preliminary discussions or are considering starting a faculty practice plan. FGCU reports that it has "begun preliminary discussions on establishing a faculty practice plan that would focus in the areas of physical therapy, occupational therapy, and athletic training, and would represent an integrative partnership between the identified Department, College and the University's central administration. No specific timeline has been identified for developing this initiative." FAMU reports that the "Division of Physical Therapy in the School of Allied Sciences is exploring opportunities to establish a faculty practice plan in 2017-18. Initial conversations have begun between the University/Division of Physical Therapy and Bond Community Health Specialty Clinic and Outdoors Disabled Association/Goodwill Industries to offer physical therapy services at their Tallahassee locations."

Regarding health care delivery services, SUS institutions tend to provide health care services very close to home; extending services beyond the local area is the exception rather than the rule. Health care services are provided in a number of settings in close vicinity to the parent institution, as well as in the towns, cities, and communities immediately surrounding the institution. Some institutions extend services statewide and even out-of-state. Sites of services exhibit a wide variety of types of settings, including outpatient clinics, federally qualified health centers (FQHC), county health departments, private physician practices, community hospitals, correctional facilities, academic health centers, VA hospitals and clinics, nursing homes, rehabilitation centers, and student health centers. Table Five in the Appendix indicates the settings and services included in the provision of health care in the universities.

- In describing the communities they serve, the SUS sites of care noted above are located in urban, inner-city, suburban and rural areas of the state. There was little distinction among the institutions in this regard, as each of them reported providing services in multiple geographic areas with diverse populations served. It should be noted, however that FIU's Green Family Foundation NeighborhoodHELP program places students in interdisciplinary, community-based outreach teams, supervised by faculty members, where they participate in home visits and work with families to implement a household-centered approach to clinical care. In addition, FSU faculty and students provide care to patients in community settings with a focus on primary care, underserved and rural populations.

- When asked to identify the top five areas of specialized health care delivery they provide, the institutions identified a diverse group of specialized services ranging from those with state, national, and international reputations for excellence; those with the greatest success in generating clinical revenues; and those identified as most urgently needed. Table Four in the Appendix shows the range of these services as reported by the institutions.

- The universities were asked to provide the number of outpatient and inpatient visits to institutions served by the institution's health care providers. For the 2013-14 fiscal year, universities reported a total of 294,304 inpatient visits with a range of 0 to 213,257 visits, and 2,601,067 total outpatient visits, with a range of 981 visits to 1,915,931 visits. Visits to other sites numbered 29,712. The grand total of all visits was close to three million-- 2,925,083. The majority of this health care provision is associated with the University of Florida and the University of South Florida. In sum, nearly 3,000,000 visits is a formidable number, and one that is likely to grow as the newer medical schools expand their health care services.

- In describing the greatest areas of health care needs, the results were as follows:
    - Six institutions identified access to care.
    - Five institutions identified preventive and acute health care services to underserved and mental health care/substance abuse services.
    - Three institutions identified primary care physicians, specialty care physicians, and population health.
    - Two institutions identified chronic disease management, affordable care, dentists/dental care, and health literacy.
    - Only one institution among the eleven respondents identified nurses, physicians assistants, therapists, health disparities, health care for the elderly, system of care for patients on Medicaid/uninsured, interoperability of health information systems, telemedicine, diabetes, Alzheimer's disease, HIV/AIDS, breast cancer, prostate cancer, musculoskeletal care, and rehabilitative services.

- The most commonly perceived barriers to patient care delivery identified by the institutions or by faculty members were:
    - lack of adequate numbers of clinical faculty (8 institutions),
    - increased workload requirements (6 institutions),
    - Graduate Medical Education funding (6 institutions),

- availability of preceptors for health care programs (6 institutions),
- need for more technologically advanced equipment (5 institutions),
- need for more cultural diversity among faculty (4 institutions),
- increasing numbers of under-insured and uninsured patients (4 institutions), and
- competing needs of clinical faculty (4 institutions).

- With regard to other barriers, the passage of legislation creating a permanent fix to the Sustainable Growth Rate in the Medicare program in 2015 was a welcomed relief to the Colleges of Medicine and to practicing physicians in the state because the lack of that fix had a negative impact on faculty practice plans that rely upon the Medicare program for reimbursement for services to elderly patients in the state. In addition, medical schools in the SUS worked hard to maintain the Supplemental Physician Payment Program, a Florida Medicaid enhanced payment program which began in 2004. The program was jointly funded through federal matching funds in the form of enhanced payments for services provided by faculty physicians to patients in the Medicaid program, in the fee for service model. With the move of the overwhelming majority of Medicaid payments to a managed care system, this program has been placed in jeopardy. While this funding remains intact for the 2015-16 fiscal year, there is no assurance that it will remain beyond that time. The expansion of Medicaid eligibility would result in hundreds of millions of additional dollars for the SUS.

- Institutions were asked to state their biggest challenges/opportunities with regard to health care delivery. Five institutions listed access to care, while two listed telemedicine. All other items were checked by only one institution. Table 10 in the Appendix indicates the entirety of responses by SUS institutions.

- When asked to provide a list of resources to track health care delivery needs in their service area, as well as resources they plan to use in the future, universities listed the following sources:
  - Florida statistics from state agencies,
  - Florida statistics from national agencies,
  - hospital surveys, and
  - independent surveys to institutions.

Regarding university responses to independent surveys, the University of Florida, in particular, provided a detailed listing of key health data resources utilized to track health care delivery, including UF Health internal data to

identify patterns and trends among patients from the community treated at its facilities.

- In response to the question regarding critical areas of health care delivery that are not currently or sufficiently addressed by Florida universities or their affiliated partners, and should be, institutions responded as follows:
    - Four institutions identified mental health, access to affordable health care, and physician shortages.
    - Three institutions identified lack of residency positions, and care of the elderly.
    - Two institutions identified funding for uninsured/indigent patients, public/population health, telemedicine, dental care and primary care.
    - Among the eleven respondents, single institutions identified veteran's health, the Affordable Care Organization model, health care literacy, wellness and disease prevention, chronic disease management, health disparities, supply of nurses, rural medicine, infectious disease, FQHC affiliations, threat to children's medical services funding, home health programs, occupational therapy, physical therapy, and home health programs.

- One area of critical health care delivery that is not currently sufficiently addressed by Florida universities or their affiliated partners bears special mention. Funding for Graduate Medical Education represents a substantial revenue source for SUS institutions, and has been among the top three legislative issues for the Florida Council of Medical School Deans for the past eight years. Growth in Graduate Medical Education programs and funded positions was significantly halted with the passage of the Balanced Budget Act of 1997, which capped Medicare reimbursements for Direct and Indirect Medical Education (DME and IME) at the number of residents in training as of December 31, 1996. Additionally, the amount of Indirect Medical Education funding has decreased since that time. Although there has been some growth in both Graduate Medical Education programs and slots due to several factors, including a small number of redistributed residency slots, a few programs established in new settings that had no previous Graduate Medical Education of any kind, a limited number of VA-funded positions, and some above-the-cap hospital funded-programs, many believe that the increases have not been sufficient to meet the projected physician workforce needs for the country. As part of the survey, institutions were queried regarding past, current, and future plans for Graduate Medical Education programs or positions within existing programs. Results of the survey showed that since 2012-13, only two programs were discontinued,

a Transitional Internal Medicine program and a Geriatrics program. None of the institutions had plans for any further discontinuation of programs. On the other hand, as noted in Table 7 in the Appendix, several new programs have been developed, with some increase in positions in existing programs at certain of the schools. Also, as noted in Table 8 in the Appendix, several institutions, particularly the ones with newer medical schools, have plans to start additional programs in the near future. Notwithstanding these additions, an adequate number of residency slots is apt to remain an issue due to the magnitude of the current shortage.

<u>Question Three</u>: How is the delivery of health care emerging and evolving in ways that will have an impact on the preparation of health care workers by Florida Universities?

In order to better understand the universities' responses that were given to the above survey question, some additional information regarding a major new development, the passage of the Affordable Care Act, and its effect upon health care delivery needs to be provided.

With the passage of the Affordable Care Act, the concepts of Accountable Care Organizations and Patient-Centered Medical Homes became much more widespread. A study in the June 3, 2014 issue of the Annals of Internal Medicine[10] shows that when practices use a Patient-Centered Medical Home model that relies on electronic health records, they achieve a higher quality of care than non-Patient-Centered Medical Home models that use electronic health records or those that use paper health records. The Patient-Centered Medical Home is a model of primary care that is patient-centered, comprehensive, team-based, coordinated, accessible, and focused on quality and safety. An Accountable Care Organization is a network of doctors and hospitals that share financial and medical responsibility for providing coordinated care to patients in hopes of limiting unnecessary spending. Each patient's care is directed by a primary care physician. The Accountable Care Organization is eligible for bonuses when its members deliver care more efficiently and is liable for penalties when they do not.

There has been significant growth in the number of practices that qualify as Patient-Centered Medical Homes as well as the number of Accountable Care

[10] Kern, L.M.; Edwards, A.; & Kaushal, R. (2014, June 3). The Patient-Centered Medical Home, Electronic Health Records, and Quality of Care. *Ann Intern Med*.: 160*(11):* 741-749.

Organizations over the past three to four years. According to Leavitt Partners Center for Accountable Care Intelligence, in July 2012:[11]

- California led all states with 58 Accountable Care Organizations followed by Florida with 55 and Texas with 44.
- Accountable Care Organizations are primarily local organizations, with 538 having facilities in only one state.
- At the Hospital Referral Region level, Accountable Care Organizations now are present throughout much of the United States, though some regions, primarily rural areas in the northern Great Plains and Southeast still have limited Accountable Care Organizations activity.
- Los Angeles (26), Boston (23) and Orlando (17) have the most Accountable Care Organizations.

The Leavitt Partners Center for Accountable Care Intelligence report indicated that 88 more medical groups had been added to the Accountable Care Organizations list all over the nation, including ten groups from Florida. Health care providers in Florida, most of them physicians, totaled nearly 1,300 doctors who earned the Accountable Care Organizations designated title by the federal government. Given the involvement of this many providers throughout the state, it is likely that many more Medicare beneficiaries in Florida will be using this kind of care.

SUS institutions were asked to describe the settings or services included in the provision of care in the organization and their perceived importance now and over the next five years. As described above, the passage of the Affordable Care Act is a major influence upon evolving and emerging trends in settings and services:

- Only two institutions (UF and UCF) indicated that they are currently a Patient-Centered Medical Home model, and only one (UF) indicated that it is part of an Accountable Care Organization. However, an additional five institutions indicated that they plan to become a Patient-Centered Medical Home model, and three institutions plan to become part of Accountable Care Organizations within the next five years.
- Each institution that was or was planning to become a Patient-Centered Medical Home model or part of an Accountable Care Organization placed a high importance on these organizational structures.
- Six institutions are already using electronic health records and an additional institution plans to start using one within the next five years.

[11] Muhlestein, D, (2014, January 29). Leavitt Partners Center for Accountable Care Intelligence. Accountable Care Growth In 2014: A Look Ahead. *Health Affairs Blog*. Available at http://healthaffairs.org/blog/2014/01/29/accountable-care-growth-in-2014-a-look-ahead/

<u>Question Four</u>: How, if at all, are accrediting bodies for health care programs altering their standards to align with emerging and evolving changes to health care delivery?

Among the ways in which accrediting bodies are aligning their standards with emerging and evolving changes in health care delivery are the addition of a standard requiring inter-professional collaborative training for students, changes in curriculum and pedagogy that affect the way faculty teach, an emphasis on outcomes measures over process in student evaluation, and the provision of faculty development and support for student evaluation.

In addition to hands-on clinical care delivery, learners must also be trained in the system of health care delivery. The Liaison Committee on Medical Education (LCME) now has a standard requiring inter-professional training within the medical education program of accredited medical schools. LCME Standard 7.9[12] on inter-professional collaborative skills states that:

> The faculty of a medical school ensure that the core curriculum of the medical education program prepares medical students to function collaboratively on health care teams that include health professionals from other disciplines as they provide coordinated services to patients. These curricular experiences include practitioners and/or students from the other health professions (p. 11).

Similarly, the Commission on Osteopathic College Accreditation's Standard 6.4[13] states that:

> The COM [College of Medicine] must help to prepare students to function on health care teams that include professionals from other disciplines. The experiences should include practitioners and/or students from other health professions and encompass the principles of collaborative practices (p. 21).

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[12] Liaison Committee on Medical Education. (2015, April). Functions and Structure of a Medical School. Standards for Accreditation of Medical Education Programs Leading to the M.D. Degree. Retrieved August 13, 2015 from Liaison Committee on Medical Education, http://www.lcme.org/publications.htm#standards-section

[13] Commission on Osteopathic College Accreditation. (2015, July). *Accreditation of Colleges of Osteopathic Medicine: COM Accreditation Standards and Procedures.* Retrieved August 13, 2015 from Commission on Osteopathic College Accreditation, https://www.osteopathic.org/inside-aoa/accreditation/predoctoral%20accreditation/Documents/COM-accreditation-standards-current.pdf

Review of accreditation standards of other health care programs reveals similar language addressing emerging and evolving changes to health care delivery.

When asked about the impact of educational accrediting bodies on the care provided by faculty members, medical schools mentioned several Liaison Committee on Medical Education standards that directly relate to changes being made in the curriculum. These include Standard 7.9 on inter-professional collaborative skills, as well as the standards regarding curriculum content, specific skills, attitudes and behaviors students must demonstrate, types of patients and clinical settings students must encounter, and qualifications of faculty. Also mentioned are standards that directly impact faculty members such as the move to more small group learning, incorporation of quality improvement and safety education into the curriculum, and the increasing use of simulation. They also mentioned Accreditation Council on Graduate Medical Education standards emphasizing outcomes over process measures, and the need for Graduate Medical Education to occur in an atmosphere of continuous quality improvement. In addition, survey respondents noted that there is an opportunity for universities and academic medical centers to play a role in the maintenance of certification process for physicians after residency. One institution mentioned that accrediting bodies had also impacted the care provided by its faculty members by helping the College of Medicine utilize input from faculty members to enhance faculty development, helping to ensure that core faculty understands evaluation processes, and ensuring that residency program directors have protected time and are compensated for their role as program leaders.

Two years ago, through its ACE initiative (Accelerating Change in Medical Education), the American Medical Association provided $1 million to each of 11 schools to focus on reforming the current medical education system to one that would better prepare physicians for future practice. The AMA just announced an additional $1 million dollars to be split among 20 additional schools ($75,000 each) to join the initiative.

In another important accreditation move, as of 2020, all nursing schools in Florida will be required to undergo accreditation by a national body.

<u>Question Five</u>: Given that health care delivery is changing, should the current mix of didactic versus clinical in health-related curricula be modified?

The quick answer is "yes." The reasons why include changes in curricula and its delivery, the needs of a more diverse student body, and the eventual placement

of graduates in a variety of communities and settings that will require understanding of the needs of underserved populations.

Just as accreditation standards regarding the need for inter-professional education have increased over the past few years, it has also been recognized that a more integrated, developmentally-appropriate structure to health care education is needed. Curriculum reform is prevalent throughout the country and Florida schools are part of the trend. Review of the medical school curricula in the state reveals that more education is occurring in small groups, clinical learning centers, simulation centers, and clinical preceptorships in the community. Therefore, the question is no longer "should," but "how quickly" curricular modification is occurring and what the improved outcomes of the changes will be.

In addition, university respondents were asked to describe health care delivery or educational programs, including student recruitment strategies, at their institutions designed to fill gaps in delivery for underserved areas and populations. They described a number of pre-matriculation pipeline programs as well as programs within their current curriculum that are designed specifically to meet the needs of underserved populations. Some institutions also noted plans for new programs specifically to address this issue. Several examples are provided below.

UNF noted that its nursing program specializes in community health care delivery, which focuses on underserved areas and populations. FGCU offers a Nurse Practitioner program that focuses on primary care, particularly in underserved areas. FGCU is also planning on starting a Physician Assistant Studies program that will prepare graduates who will serve in primary care settings as well as contribute to specialty areas in critical need in southwest Florida. FAMU's School of Allied Health and College of Pharmacy have a number of programs focused on filling gaps in delivery of health care services to underserved populations. FAMU also noted that it recruits and graduates significant numbers of under-represented students in pharmacy, with its College of Pharmacy being the number one producer of African-American pharmacists in the nation.

FIU described the Green Family Foundation NeighborhoodHELP program, which is a community classroom for applying ethical, social, and clinical competencies to educate medical students on non-biological factors in the diagnosis, treatment, and care of underserved households. During these home visits, students work with their household members to implement a household-centered approach to clinical care. FAU described a number of programs where its medical students provide services to underserved populations and noted that

its College of Nursing is redesigning clinical practicums for nurse practitioner education to more underserved areas. FSU described its SSTRIDE (Science Students Together Reaching Instructional Diversity and Excellence) program, designed to assist in identifying, nurturing, and recruiting qualified students from backgrounds traditionally under-represented in medical school. FSU also noted several areas in its curriculum where students are exposed to caring for underserved populations, including minority, geriatric populations and individuals from rural areas. USF noted that all courses and clerkships in its curriculum address concepts that pertain to the care of underserved populations. In addition, USF described the SELECT program, which consists of professional development courses that offer conceptual and skills-based instruction on cross-cultural health care. USF also described a number of targeted outreach, pipeline, and development programs already in place and their efforts to expand the number of applicants to these programs of emphasis. UF, likewise, has a number of pre-matriculation pipeline programs, along with a holistic admissions process that values students' diverse backgrounds and personal life experiences, including those who grew up in rural areas or around medically underserved populations. UF also has a number of curricular elements that address population health concepts and emphasize the importance of health care access and delivery across socio-demographic groups as well as early primary care clinical opportunities in settings serving the underserved.

Question Six: What technological changes in health care delivery will require concomitant changes in health care education?

It is well recognized that greater inter-operability of electronic health records is needed to allow increased sharing of medical information with teams of health professionals in order to facilitate data retrieval for quality and billing purposes, and to help alleviate patient safety concerns. The Office of the National Coordinator for Health Information Technology has issued a roadmap for shared nationwide interoperability (http://www.healthit.gov/sites/default/files/nationwide-interoperability-roadmap-draft-version-1.0.pdf).

Increased use of telemedicine allows interactive communication between the patient and the physician or practitioner at a distant site. This type of interaction can lead to greater efficiencies, including improved access to care and overall health. Telemedicine represents a change in the health care delivery method, but not necessarily in how physicians practice. The lack of reimbursement for telemedicine services has limited its use in Florida. Legislation was introduced in the Florida Legislature for the past two years to alleviate this barrier; it failed

to pass in either session. It is premature at this time to predict how much of an emerging or evolving influence telemedicine will have in Florida.

The survey of SUS institutions revealed that four institutions are already using telemedicine and three others plan to begin using it in the next five years. Electronic health records use in the SUS institutions has already been noted. Simulation is also playing a greater role in SUS colleges of medicine.

Conclusion

The results of the survey presented in this report were primarily provided by Colleges of Medicine within the SUS. Future surveys of similar information should specifically request input from other colleges participating in health care delivery.

Health care is provided by SUS faculty members in academic health centers, community hospitals, VA hospitals, outpatient clinics and physician offices, health departments, and community health centers. Each medical school has a faculty practice plan. The structure of these plans differs based on the nature of affiliated partnerships (VA hospitals, private hospitals, public hospitals, and community health centers) and stage of development. The newer medical schools are still developing practice plans, while the older schools have mature plans which contribute significantly to the education of students and residents, as well as to the revenue streams of the medical schools. The practice plans within the SUS face the same challenges as practices in the community. Combining the increased use of teams to provide care, expanding the use of technology (electronic health records, telemedicine), and providing care to more groups and underserved populations will likely shift the types of providers, setting of services, and payment structure for health care in the future.

Health care provision by SUS institutions is only likely to grow, particularly as its newer medical schools expand their services. Top areas of health care delivery are identifiable by institution, and the institutions are cognizant of barriers and opportunities in the provision of quality health care. Changes to accreditation standards have favorably impacted health education and, thus, health care delivery. Curriculum reform is prevalent in the health-related programs in the SUS.

Finally, Florida's particular demographics will, in and of themselves, affect health care delivery in the future. First and foremost, Florida is continuing to grow, and this growth will increase the stress on Florida's health care

infrastructure. Florida's demographics are not expected to stabilize or to decrease, as other states project. Instead, all projections show continued increases in population as far out as these projections are made. Further, while the historical trend of retirees moving to Florida is continuing, pre-retirees are now also moving to Florida in greater numbers. Florida is trending toward a population that tends to be bimodal, with large percentages of the population aged 24 and below, and large percentages aged 65 and above. In addition, Florida's health care needs are not evenly distributed throughout the state. Rural areas, in particular, can be under-supplied, even though the state as a whole may have a sufficient supply in any given health care occupation. Florida's health care delivery infrastructure will be challenged by these demographics in the years to come, and it will be imperative that the SUS institutions best position themselves as part of the solution to the challenges ahead.

Appendix: Board of Governors Health Initiatives Committee Survey on Health Care Delivery

Introduction

The purpose of the survey was to assist in the third component of this year's environmental scan to inform the Health Initiatives Committee as to the opportunities and challenges associated with health care delivery in the State University System.

Health Care Delivery: Description

For the purpose of this survey, we focused on health care services provided by faculty and staff of the twelve SUS institutions. This included those services provided within, but not necessarily limited to, academic health centers, community hospitals, faculty practice plans, affiliated physician practices, health departments, community health centers, and surgery centers.

Methods

To gauge the level of health care delivery currently being provided by faculty members in the State University System, a 16 question survey was sent to each of the SUS institutions. Of the 11 schools responding to the survey, five reported none to very limited activity in the area of health care delivery (University of West Florida, New College, Florida Gulf Coast University, University of North Florida, Florida A & M University). Although Polytechnic University did not respond, given their short time of existence and the focus of their educational programs, we believe they would also fall in this category. Four of the universities reporting have relatively new or very small practice plans, mainly due to the fact that their medical schools have been in existence 15 years or less (Florida Atlantic University, Florida International University, University of Central Florida, Florida State University). Two of the universities have very mature faculty practice plans and reported significant activity (University of South Florida, University of Florida – Gainesville and Jacksonville campuses).

Results

Scope of Health Care Delivery

1. How do you define the health care delivery service area for your institution?

   The institutions that provide health care services do so in a number of settings in close vicinity to the parent institution, as well as in the towns, cities, communities immediately surrounding the institutions and several extend services statewide and even out-of-state. Sites of services include outpatient clinics, federally qualified health centers (FQHC), county health departments, private physician practices, community hospitals, correctional facilities, academic health centers, VA hospitals and clinics, nursing homes, rehabilitation centers and student health centers.

2. How would you describe the communities served by your health care providers, in terms of primary geography (urban, rural, suburban, inner city) and/or specific populations?

   The sites of care noted in question #1 are located in urban, inner-city, suburban and rural areas of the state. There was little distinction among the institutions in this regard, as each of them reported providing services in multiple geographic areas with diverse populations served.

3. Does your institution have a faculty practice plan? Please provide any clarifying details on (1) the ownership structure, (2) the extent of participation of the colleges/schools/programs or (3) anticipated changes in the institution's faculty practice plan.

   Half of the schools reported having a faculty practice plan, the entity that serves as the structure for receiving clinical practice revenues generated from services provided by faculty clinicians. These plans are set up as 501C.3 not-for-profit entities per Florida Statutes Section 1004.28, and are under the control of the Boards of Trustees of the universities. Of the six schools with a faculty practice plan, three of them only serve the Colleges of Medicine, while the other three include other units within the university. Two of the schools currently with neither a faculty practice plan nor a medical school reported that they are having preliminary discussions or are considering starting a faculty practice plan. FGCU reports that they have "begun preliminary discussions on establishing a faculty practice plan that would focus in the areas of physical therapy, occupational therapy, and athletic training, and would represent an

integrative partnership between the identified Department, College and the University's central administration. No specific timeline has been identified for developing this initiative." FAMU reports that the "Division of Physical Therapy in the School of Allied Sciences is exploring opportunities to establish a faculty practice plan in 2017-18. Initial conversations have begun between the University/Division of Physical Therapy and Bond Community Health Specialty Clinic and Outdoors Disabled Association/Goodwill Industries to offer physical therapy services at their Tallahassee locations."

4. What do you perceive to be the greatest health care delivery needs in your service area and statewide?

Table One: Greatest Health Care Delivery Needs	
Area of Greatest Health Care Need	**# of Institutions Listing this Area of Need**
Access to Care	6
Chronic Disease Management	2
Affordable Care	2
Primary Care Physicians	3
Specialty Care Physicians	3
Dentists/Dental Care	2
Nurses	1
Physician's Assistants	1
Therapists	1
Preventive and Acute Health care Services to Underserved	5
Mental Health care/Substance Abuse Services	5
Health Disparities	1
Health Care for the Elderly	1
Population Health	3
Health Literacy	2
System of Care for Patients on Medicaid/Uninsured	1
Interoperability of Health Information Systems	1
Telemedicine	1
Diabetes	1
Alzheimer's Disease	1
HIV/AIDS	1
Breast Cancer	1
Prostate Cancer	1
Musculoskeletal Care	1
Rehabilitative Services	1

5. How do you track health care delivery needs in your service area currently, or plan to do so in the future?

Table Two: Tracking of Health Care Needs		
Resources	**Currently Use**	**Plan to Use**
Florida Statistics from National Agencies	6	3
Florida Statistics from State Agencies	7	2
Hospital Surveys	6	3
Your Institution's Independent Survey(s)	6	3
Other (Please describe)	4	1

Please provide greater detail on the most significant reports and resources on health care needs used by your institution.

6. For fiscal year 2013-14, please fill out the table below "Number of Patient Visits to Institutions Served by your Health care Providers" broken out by inpatient and outpatient visits. Please include additional rows for each of the affiliated institutions or facilities.

Table Three: Number of Patient Visits to Institutions Served by SUS Health Care Providers				
Institution or Facility	**Inpatient Visits**	**Outpatient Visits**	**Other**	**Total # of Visits**
	294,304	2,601,067	29,712	2,925,083
	0 – 213,257	981 – 1,915,931	29,712	

7. In layman's terms, please identify the top areas (up to five) of specialized health care delivery provided by your institution. These may be defined by (a) their state/national/international reputations for excellence, (b) their greatest success in generating clinical revenues, or (c) their status as most urgently needed.

Table Four: Top Areas of Specialized Health Care Delivery							
	UF	**USF**	**FSU**	**FAMU**	**UCF**	**FIU**	**FAU**
Cancer Care	X	X					
Cardiovascular Disease	X	X				X	
Children's Care	X						
Neuromedicine	X	X					
Trauma/Transplantation/Critical Care	X						
Allergy/Immunology/Infectious Disease		X					

Diabetes		X		X			
Preventive Care			X				X
Primary Care			X			X	X
Geriatrics			X				
Care of Underserved Populations			X	X	X		
Rural Health Care			X				
Medication Management				X			
HIV Care				X			
Health Information Technology					X		
Emerging Models of Health Care					X		
Improving Quality					X		
Cost-effective Health Care					X		
Dermatology							
Rheumatology						X	
Pain Management						X	X
Travel Medicine						X	
Dementia Care							X
Mental Health Care							X

Trends in Health Care Delivery

8. Which of the following describe the settings or services included in the provision of care in the organization? What is their perceived importance?

Table Five: SUS Settings and Services								
	UF: G/J	USF	FSU	FAMU	UCF	FIU	FAU	FGCU
Currently								
Patient-Centered Medical Home (PCMH)	X/X				X			
Part of an Accountable Care Organization (ACO)	X/							
Telemedicine	X/X	X				X	X	
Personalized Medicine	X/	X						
Electronic Health Records	X/X	X	X		X	X	X	
Direct Primary Care	/X	X		X	X	X	X	
Chronic Care Management	X/	X	X	X	X	X	X	
Team-based, Interprofessional Care	X/X	X		X	X	X	X	
Graduate Medical Education	X/X	X	X		X	X	X	
Starting in Next 5 Years								
Patient-Centered Medical Home		X	X		X	X	X	

(PCMH)								
Part of an Accountable Care Organization (ACO)	/X	X			X	X		
Telemedicine			X	X	X		X	
Personalized Medicine	/X		X	X	X			
Electronic Health Records					X		X	X
Direct Primary Care	X/		X		X		X	
Chronic Care Management					X		X	X
Team-based, Interprofessional Care	/X		X		X			X
Graduate Medical Education					X			

9. What barriers do you perceive to patient care delivery in your institution or by your faculty members?

Table Six: Perceived Barriers to Health Care Delivery	
Barriers	**# of Indicating Institutions**
Lack of adequate numbers of clinical faculty	8
Increased workload requirements	6
Need for more cultural diversity among faculty	4
Need for more technologically advanced equipment	5
Increasing numbers of under and uninsured patients	4
Competing needs of clinical faculty	4
Availability of preceptors for health care programs	**6**
Graduate Medical Education funding	**6**
Other (Please describe with additional narrative)	**2**

10. Has the delivery of health care changed at your institution in recent years? Five institutions reported changes in the delivery of health care in recent years.

    a. How has it changed?
    Areas of change among the five institutions included:
    - Greater use of EHR's, including CPO (Computerized Physician Orders)
    - Telemedicine
    - Increasing opportunities for interprofessional/interdisciplinary training and care

- Expanded and Enhanced relationships with community partners
- New Faculty Practice Plan development
- Expanded clinical training sites, including community health centers
- Expansion of primary and specialty care services
- Increased emphasis on metric-driven continuous improvement in clinical quality and service outcomes
- Increased emphasis on value

b. What have you changed or plan to change with regards to any of your educational programs to better prepare graduates for the changing health care delivery systems?
   Planned changes to better prepare graduates for the changing health care delivery systems included:
   - More opportunities for interprofessional training and care teams
   - Implement and/or expand telemedicine services
   - Values-based, patient-centered care
   - Renewed emphasis on quality and safety and including residents in the initiative
   - Expand experiences in geriatrics, rehabilitative medicine, and primary care
   - Formal training in use of the EHR and medical informatics
   - Expanded educational focus in the areas of population health, personalized and precision medicine; and health policy
   - More emphasis on boot camps at end of third and fourth years to prepare students for their residencies
   - Incorporate more patient safety, epidemiology, and practice of medicine content within the educational program
   - Provide opportunities to practice in a patient-centered medical home environment
   - For nursing education, add community-based care in curriculum, partner for service delivery, consider new concentrations in MSN program, purchase EHR for student use, add residencies for DNP students, and evidence-based practice projects for undergraduates

c. What impact has your educational accrediting bodies had on the care provided by your faculty members?

Medical schools mentioned several LCME standards that directly relate to changes being made in the curriculum. These include Standard 7.9 on Interprofessional Collaborative Skills, as well as the standards regarding curriculum content, specific skills, attitudes and behaviors students must demonstrate, types of patients and clinical settings students encounter and qualifications of faculty. Also mentioned are standards that directly impact faculty members such as the move to more small group learning, incorporation of quality improvement and safety education into the curriculum and the increasing use of simulation. They also mention ACGME standards emphasizing outcomes over process measures, and the need for Graduate Medical Education to occur in an atmosphere of continuous quality improvement. It was also noted that there is an opportunity for universities and academic medical centers to play a role in the Maintenance of Certification process for physicians after residency. One institution mentioned that accrediting bodies had also impacted the care provided by its faculty members by helping the college of medicine utilize input from faculty members, while enhancing faculty development; helping to ensure that core faculty understand evaluation processes; and ensuring that residency program directors have protected time and are compensated for their role as program leaders.

11. How has Graduate Medical Education at your institution changed since 2012-2013 in terms of additional or terminated positions or programs?

Table Seven: Graduate Medical Education Expansion and Closure Since 2012-13						
	UF	**USF**	**FSU**	**UCF**	**FIU**	**FAU**
Added						
Family Medicine			X		X	
Internal Medicine			X	X		X
Internal Medicine, Hospitalist		X				
Advanced Heart Failure and Transplant Cardiology	X					
General Surgery	X		X			X
Geriatric Psychiatry	X					
Child Neurology	X					
Emergency Medical Services	X					
Pediatric Rheumatology	X					
Integrated Plastic Surgery	X					
Emergency Medicine						X
Procedural Dermatology Fellowship			X			

Pediatrics	X					
Pediatric GI Fellowship	X					
Psychiatry					X	
New Positions	23		55			
Closed						
Internal Medicine, Transitional		X				
Geriatrics		X				

12. Regarding Graduate Medical Education, are there plans in the near future to add or terminate positions or programs under the institution's sponsorship?

Table Eight: Planned Graduate Medical Education Expansion						
	UF	**USF**	**FSU**	**UCF**	**FIU**	**FAU**
Family Medicine	X (expand)	X				X
Internal Medicine			X		X	
Pediatrics					X	X
Obstetrics/Gynecology					X	X
General Surgery					X	X
Psychiatry					X	X
Orthopedic Surgery					X	
Emergency Medicine	X (expand)				X	X
Vascular Surgery						X
Neurology						x
Physical Medicine and Rehabilitation	X					x
Dermatology			X			
Anesthesiology		X				
Clinical Informatics Fellowship		X				
Hospice and Palliative Care	X					
Pediatric Anesthesiology	X					
Preventive Medicine	X					
Unspecified			X	X		

13. Please describe health care delivery or educational programs, including student recruitment strategies, at your institution designed to fill gaps in delivery for underserved areas and populations.

    Institutions described a number of pre-matriculation pipeline programs as well as programs within their current curriculum that are designed

specifically to meet the needs of underserved populations. Some of them also noted plans for new programs specifically to address this issue.

UNF noted that its nursing program specializes in community health care delivery, which focuses on underserved areas and populations. FGCU offers a Nurse Practitioner program that focuses on primary care, particularly in underserved areas. FGCU is also planning on starting a Physician Assistant Studies program that will prepare PA's who will serve in primary care settings as well as contribute to some specialty areas in critical need in southwest Florida. FAMU's School of Allied Health and College of Pharmacy have a number of programs focused on filling gaps in delivery of health care services to underserved populations. They also note that they recruit and graduate significant numbers of underrepresented students in Pharmacy, with COPPS being the #1 producer of African-American Pharmacists in the nation.

FIU described the Green Family Foundation NeighborhoodHELP program, which is a community classroom for applying ethical, social, and clinical competencies to educate medical students on non-biological factors in the diagnosis, treatment, and care of undeserved households. FAU described a number of programs where its medical students provide services to underserved populations, and noted that its College of Nursing is redesigning clinical practicums for NP education to more underserved areas. FSU describes its SSTRIDE (Science Students Together Reaching Instructional Diversity and Excellence) program, designed to assist in identifying, nurturing and recruiting qualified students from backgrounds traditionally underrepresented in medical school. FSU also notes several areas in its curriculum where students are exposed to caring for underserved populations, including minority, geriatric populations and individuals from rural areas. USF notes that all courses and clerkships in its curriculum address concepts that pertain to the care of underserved populations. USF also describes the SELECT program which has professional development courses that offer conceptual and skills-based instruction on cross-cultural health care. USF also described a number of targeted outreach, pipeline, and development programs already in place and their efforts to expand the number of applicants to these programs of emphasis. UF, likewise, has a number of pre-matriculation pipeline programs, along with a holistic admissions process that values students' diverse backgrounds and personal life experiences, including those who grew up in rural areas or around medically underserved populations. UF also has a number of curricular elements that address population health concepts and emphasize the importance of health care access and delivery

across sociodemographic groups, and early primary care clinical opportunities in settings serving the underserved.

14. Please describe any critical areas of health care delivery that are not currently or sufficiently addressed by Florida universities, or their affiliated providers, and should be.

Table Nine: Areas of Health Care Delivery that Need to Be Addressed	
Note: Numbers in parentheses indicate the number of institutions who cited an area.	
Lack of Residency Positions (3)	Funding for Uninsured/Indigent Patients (2)
Mental Health (4)	Veteran's Health (1)
Public/Population Health (2)	Telemedicine (2)
Affordable Care Organization Model (1)	Access to Affordable Care (4)
Physician Shortages (4)	Dental Care (2)
Wellness and Disease Prevention (1)	Care of the Elderly (3)
Health Care Literacy (1)	Chronic Disease Management (1)
Health Disparities (1)	Nurses (1)
Rural Medicine (1)	Physical Therapy (1)
Primary Care (1)	Home Health Programs (1)
Infectious Disease (1)	Occupational Therapy (1)
FQHC Affiliations (1)	Threat to Children's Medical Services Funding (1)

15. What are your biggest challenges/opportunities with regard to health care delivery?

Table Ten: Health Care Delivery Major Challenges and Opportunities								
	UF	USF	FSU	FAMU	UCF	FIU	FAU	FGCU
Access to Care	X	X			X	X	X	
Inadequate Support for Wellness and Disease Prevention	X							
Shortage of Mental Health Services	X							
Balancing Multiple Strategic Challenges	X							
Need for Improved Funding of Medical Education	X							
Need for Stable GME Funding	X							
Physician Shortages	X							
Dental Care					X			
Telemedicine		X	X					
Electronic Health Records								X
Funding for Critical Positions								X
Health Disparities				X				
Difficulty Recruiting Advanced Practice Nurses		X						
Faculty Recruitment for New School							X	
Shortage of Qualified Faculty		X						
Creation of Clinically Integrated Care Teams		X						
Threat to Children's Medical Services Funding		X						
Practice Options for Full-time Faculty without an AHC			X					
Scope of Practice for ARNP's		X						
Lack of Multidisciplinary Simulation Training Center				X				

16. Please provide links to any annual reports relative to health care delivery that are published electronically by your institution. Alternately, please send a hard-copy to the Board of Governors office, care of Amy Beaven, Director for STEM and Health Initiatives, Florida Board of Governors, 325 West Gaines Street, Tallahassee, Florida 32399. Address any questions to Amy Beaven at **Amy.Beaven@flbog.edu** or (850) 245-5113.