Executive Summary

Introduction

In early 2005, the University of Kansas School of Medicine (KUSOM) was approached by representatives of the Kansas Academy of Family Physicians (KAFP) to discuss Kansas’ future primary care physician workforce. The School had been considering studies by the American Association of Medical Colleges (AAMC) and the Council on Graduate Medical Education (COGME) calling for increases in medical school class size and graduate medical education (residencies and fellowships). Representatives of the Kansas Department of Health and Environment (KDHE) had also been in contact with the School concerning the availability of physicians and access to health care across the state. In response to these common concerns, KUSOM, KAFP, and KDHE jointly convened a group of researchers and policymakers to:

“Improve understanding of current and future health professions workforce needs in the state of Kansas and to identify the determinants of professional practice patterns in an effort to enhance strategic planning and advance population health.”

With funding from the KDHE Office of Local and Rural Health, Office of Primary Care, the initial meeting of the Workforce Advisory Board was held in the Fall of 2005. Over a twelve month period, a statewide team with representatives from public institutions, professional organizations, and private industry met to determine the best approach for addressing this complex goal. This report captures these efforts.

Overview of Physician Workforce Shortage Challenges

The growing aging U.S. population as well as the expansion of demand for physician services in recent years has led several major organizations, including the Association of American Medical Colleges (AAMC) and the Accreditation Council for Graduate Medical Education (ACGME) to call for expansions in U.S. medical education programs over the next two decades. The AAMC has issued recommendations on the primary items to be considered in regional workforce analyses, including:

- A profile of the state’s physician workforce
- A profile of medical education and training in the state
- A demographic analysis of the state’s population
- Forecasts of future physician supply and demand in the state

The results from these analyses help state policy makers to identify and understand the issues surrounding the state’s physician supply and demand, assess the magnitude of problems and timeframe within which they need to be addressed, and prescribe effective policy measures to address them.

This report describes efforts within the State of Kansas to follow the recommendations and guidance of the AAMC and evaluate the state’s physician workforce by organizing a group of stakeholders to track and assist in the analysis effort.

Primary Study Findings

- Taken as a whole, the state of Kansas is currently below the National Average for physicians per 100,000 population.
- In addition, Kansas has a mal-distribution of physicians reflected by low physician-per-100,000 ratios in five of its six major geographic regions, with under service prominent in rural regions, especially the Southeastern and Southwestern regions.
- This mal-distribution cannot be addressed without attention to Primary Care workforce development. The most underserved rural and urban areas require and are likely to be best served by Primary Care physicians (Family Medicine, General Internal Medicine, and Pediatrics).
- While the state’s physician supply will increase over the next two decades, Kansas will likely remain behind most other states due to physician demand trends and increased rates of out-migration of medical school graduates, interns, and residents as a result of expansion of practice opportunities and educational programs in geographically contiguous states and nationwide.
Limitations of the Study

While the Workforce Advisory Board and the Analysis Group made every attempt to be comprehensive in the analyses described in this report, there are several significant limitations to findings and recommendations.

- The existing physician practice demographics data obtained during the annual re-licensure of Kansas’ physicians and the practitioner databases maintained by various state agencies, primarily the Kansas Board of Healing Arts, are for the purposes of this work incomplete.
- The current study does not take into account the impact on the future of the Kansas physician workforce that may be seen as a result of changes in the educational programs and the physician practice patterns in contiguous states and the region as a whole.
- The current study focuses only on the “supply side” of the physician workforce equation -- while models that attempt to predict future demand for physicians are being developed, these models have not as yet been validated for the state of Kansas and they have not been considered in the preparation of this report.
- Lacking consensus on the appropriate physician-per-100,000-population ratios for primary care and specialist physicians, the study assumes that policies should aim to provide ratios for the state as a whole that are no less than the national ratios.

Primary Advisory Board Recommendations

The State of Kansas should:
- Increase the number of Graduate Medical Education (GME) opportunities, i.e. residency or fellowship positions, available in the state
- Create a Primary Care Education Enhancement Task Force to make recommendations to maintain and enhance the school’s tradition of education for primary care careers
- Locate GME programs and positions in underserved and rural geographic regions to enhance recruitment to and retention in practice
- Increase the size of the Undergraduate Medical Education (medical student) program and explore methods to allow students to spend significant amounts of time in underserved and rural areas
- Improve the stipend and benefits available to GME trainees
  - Increase GME stipends (salaries) to the mean value for the region as determined by from the AAMC survey of GME programs
- Create a system of supplemental payments or premiums for certain programs, particularly primary care to assure that these programs fill
- Engage state policy making bodies such as the Kansas Health Policy Authority Board to review/recommend improvements in GME support in Wichita, Kansas City, and throughout the state
- Increase incentives and stipends for UME and GME trainees, J-1 participants and other physicians to maximize retention of those who desire to practice in rural and underserved regions
- Emphasize stipend and incentive increases for Primary Care and Rural programs (e.g. Scholars in Rural Health, Kansas Medical Loan Program, Bridging Program, and Rural Track Residency programs such as Smokey Hill and Junction City)
- Create new programs to reduce educational debt and improve incomes
- Devote resources to preserving programs targeted at recruitment and retention of minority students, residents and faculty (such as those previously funded under Title VII)
- Adjust UME and GME selection and admission criteria to influence eventual physician retention and distribution patterns (e.g. more recruitment, admission, and support of geographically, ethnically, and socio-economically varied students/trainees)
- Complete analysis of admissions, KMSL, GME and other program data to identify characteristics associated with eventual Kansas and rural Kansas practice
- Mandate electronic re-licensure survey completion by all physicians using the Kansas Board of Healing Arts system
- Create similar mandates and data coordination across agencies for mid-level providers (physician assistants, nurse practitioners, mid-wives, nurses)
- Support ongoing collection, monitoring and analysis of provider workforce data, on a two-year cycle
- Identify and empower an appropriate agency or organization to oversee this scheduled activity (e.g. Kansas Health Policy Authority)
- Where possible, coordinate data collection with the recommended mandatory electronic re-licensure survey
- Obtain practitioner, hospital, practice group, and healthcare organization data on planned and current recruitment/hiring activities
Rationales Supporting the Primary Recommendations

One of the principal determinants of location of practice for newly trained physicians is the location of their residency and fellowship training programs. The state’s current GME ratio deficits pose a risk to workforce development. Physicians in Kansas are more likely to have attended in-state medical schools than physicians in other states (31% vs. 29% nationally) and 55% of KU School of Medicine (KUSOM) graduates say they plan to practice in Kansas at time of graduation. Unfortunately, licensed Kansas physicians are less likely than the national average to have completed GME training in-state (37% vs. 45% nationally).

Decades of studies have shown that GME graduates are most likely to practice within close geographic distances from the site of their GME training. Thus, increased size and/or geographically redistributed GME training programs should be seriously considered. Furthermore, as compared to their national peers, a higher proportion of KUSOM graduates express an intention to practice in rural or underserved communities. Therefore, expanding the GME position numbers, enhancing stipends, locating new and more attractive GME positions closer to rural and underserved communities, and/or use of monetary incentives and repayment programs for residents, might retain more KUSOM students and eventually result in improved supply ratios.

The findings of this report support continued action by Kansas governmental and legislative authorities and the hospitals in the state to build incentives for GME retention of KUSOM graduates. Unfortunately, such program development is especially needed in the primary care training programs. In Wichita, increasing stipends and benefits is the primary concern, since a number of programs are having some difficulty in recruiting the best candidates at the current levels of resident compensation.

Increasing medical school class size should be a leading consideration. Since many schools across the country are planning expansions in reaction to projected future shortfalls, the Kansas student cohort may require expansion to keep up. Because the current ratio of admissions to applicants at KUSOM is relatively low despite a relatively large class size, there seems to be an adequate supply of candidates to fill a significantly expanded class. However, should nearby regional medical schools increase class sizes, absent a corresponding increase in the size of the KUSOM class, native Kansans might elect to pursue medical education outside the state, reducing the size and quality of the pool of students available for admission to KUSOM. If increasing UME is a near-term consideration, resources will be needed to provide the infrastructure and faculty necessary to accommodate more students. Among the resources to be considered, is the ready availability of GME opportunities in the state.

While many medical school graduates view the transition to GME as an opportunity to train in new venues, a significant number of students, particularly those with strong social and cultural ties in the state where their medical school is located, desire to remain at their “home school” for their graduate training. Thus, if physician retention is a goal, an increase in UME class size should be accompanied with a parallel increase in GME program size. Furthermore, an increase in UME class size absent increased GME opportunities likely will exacerbate the state’s status as a net exporter of newly graduated physicians. Finally, with further study it may be possible to identify additional characteristics of candidates for admission to the UME and GME programs that predict increased likelihood of remaining in the state and/or inclination to serve in rural or underserved areas and to select for these characteristics.

Given the current retention statistics over four- and five-year time periods, the proposed expansions of the UME and GME programs alone would have only a minimal impact on the problem of physician mal-distribution within the state. The regional deficits must be addressed by policy initiatives and programs that are beyond the domain of educational programs and institutions. Policy initiatives will need to be multi-faceted and include collaborative planning across stakeholders and institutions.

Final report recommendations deal with future workforce tracking and projections. This report was limited by the reporting bias inherent to the “voluntary” Kansas State Board of Healing Arts licensure survey. In addition to the poor survey response rates resulting from a “voluntary” physician survey, there are problems related to “physician-in-training” and “primary practice location” classification which have influenced all of the findings within this report.

Because of these limitations, the Kansas Physician Workforce Advisory Board suggests that the Kansas Health Policy Authority Board consider mandating electronic Board of Healing Arts annual licensure renewal survey completion for physicians of all specialties. To address the existing biases and response deficits related to the current survey methodology, questions should be added to obtain complete physician residency data. Similarly mandates must be put in place for the Board of Nursing Arts so that all health care providers may be accounted for in future workforce analysis and planning.