

**REPORT OF THE PROVOST'S HEALTH COMMISSION
GEORGE MASON UNIVERSITY**

SEPTEMBER 1, 2005

Executive Summary

An 18 member Health Commission was appointed by Provost Peter Stearns in December, 2004 to develop a shared vision for the expansion of health and human service (HHS) educational programs at George Mason University (Mason), in general, and the expansion of HHS offerings in the College of Nursing and Health Science (CNHS), in particular. Over the course of the Commission's meetings four additional members were added to provide consistent representation from key stakeholders in the region. The work of the 22-member Commission was divided into five parts: (1) a discussion of the future HHS needs of the Northern Virginia region, (2) knowledge domains and graduate characteristics needed to meet the regional HHS needs, (3) educational program priorities for future needs, (4) current and emerging opportunities for research collaboration in an expanded college for HHS programs, (4) campus, regional, and state stakeholders, and (5) the optimal organizational structure and name for a Mason college with expanded HHS educational, research, and service missions.

The work of the Commission includes the following findings and recommendations.

Findings:

1. The capacity to meet the HHS needs of the population living in Northern Virginia over the next 10 years must include care and services pertaining to (a) health promotion and disease prevention, (b) bioterrorism and emergency preparedness, (c) chronic disease management, (d) rehabilitative and restorative care, and (e) environmental health and occupational safety.
2. The critical target populations for HHS programs will include children and aging adults, disabled individuals, culturally, economically, and ethnically diverse clients, and poor and low income families.
3. The research opportunities for expanded HHS programs at Mason include federal and state funding priorities for interdisciplinary studies in chronic illness, senior care, e-health, health information systems, health policy, social conditions and health services research. Thus, an expanded college that builds on existing programs in health science and nursing should have reasonable chances for developing highly competitive and successful programs of research.

Recommendations:

1. Establish an expanded multidisciplinary College of Health Sciences and Human Services (working title) through reorganization of the existing College of Nursing and Health Science in order to accommodate expanded HHS programs at Mason by Fall, 2006.

2. Establish a School of Public Health in the expanded College of Health Sciences and Human Services by Fall, 2010.
 - a. Develop an interdisciplinary MS degree in Behavioral Health as a joint offering between CHSHS, the Communication Department, and the School of Recreation, Health, and Tourism to be implemented by Fall, 2008.
 - b. Develop MS degrees in Occupational Safety and Environmental Health in consultation with others on campus in a new department by the same name by Fall, 2008.
3. Implement MS degree in Rehabilitation Science by Fall, 2008 and the PhD in Rehabilitation Science by Fall, 2010 in the College of Health Sciences and Human Services in collaboration with other academic units, Research Centers and Institutes on campus.
4. Implement both an undergraduate certificate and a MS degree in Senior Life and Wellness Services in the College of Health Sciences and Human Services by Fall, 2008.
5. Implement a PhD in Social Work by Fall, 2010. The Social Work program should transition to a School of Social Work in the College of Health Sciences and Human Services by Fall, 2011.
6. Create provisions at Mason for faculty in the expanded College of Health Sciences and Human Services and others on campus to engage in broadly defined faculty clinical practice opportunities by Fall, 2007.
7. Establish study groups to explore in-depth the feasibility of developing Schools of Medicine, Pharmacy, and Dentistry at Mason.

The members of the Provost's Health Commission appreciate the opportunity to think about expanded HHS programming for the Mason campuses. Throughout the process we were mindful of the rich tradition and history of the existing College of Nursing and Health Science. Our recommendations are intended to build on this tradition of excellence in order to actualize the great potential that an expanded multidisciplinary college can offer to future Mason students, to the citizens of the region, and to the Commonwealth of Virginia.

Members of the Health Commission included:**Co-Chairs:**

Ms. Teresa Klaassen, Founder, Executive Vice President, and Chief Cultural Officer of Sunrise Senior Living

Dr. Kingsley Haynes, Dean, School of Public Policy

Dr. Shirley Travis, Dean, College of Nursing and Health Science

College of Nursing and Health Science Steering Committee:

Dr. Farrokh Alemi, Professor of Health Systems Management

Ms. Rosemarie Brenkus, Assistant Dean, Student Academic Affairs

Dr. P.J. Maddox, Professor of Nursing and Director of Research, Center for Health Policy, Research, and Ethics

Dr. Carlos Sluzki, Research Professor and Director of Special Projects

Members:

Ms. Mary Agee, Northern Virginia Family Services

Dr. David Anderson, Associate Professor of Health, Director, Center for the Advancement of Public Health

Ms. Barbara Antley, Fairfax County, Department of Family Services

Ms. Karen Drenkard, Chief Nurse Executive, INOVA Health System

Mr. Brian Foley, Special Assistant to the President, Northern Virginia Community College

Ms. Cindy Glover, Chief of Nursing, Reston Hospital Center

Dr. Sunny Rome Harris, Chairperson, Department of Social Work

Dr. Gary Kreps, Chair/Professor, Mandell Endowed Chair, Communications Department

Dr. Jack Naglieri, Professor of Psychology

Dr. Arnauld Nicogossian, Research Professor, School of Public Policy

Dr. Jim Olds, Director, The Krasnow Institute for Advanced Study

Mr. Dana Paige, Fairfax County, Department of Family Services

Mr. Jess Sweely, Chief Operating Officer, AmeriChoice

Ms. Patrice Winter, Trinity Physical Therapy Associates

Ms. Jane Woods, Virginia Secretary of Health and Human Resources

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Background and Introduction

George Mason University (Mason) began in 1957 as University College, a branch of the University of Virginia. In 1966, the General Assembly authorized the expansion of George Mason College into a four-year, degree-granting institution and issued a long-range mandate for expansion into a regional university. Graduate programs began four years later. The University that we know today, separated from the University of Virginia on April 7, 1972. University enrollment rose briskly in the next 30 years from 4,166 students to nearly 30,000 by 2005. Now international in scope, George Mason University seeks to serve the region while simultaneously providing educational, cultural, and economic resources to the Commonwealth of Virginia, the nation, and the world.

The history of the current College of Nursing and Health Science has also been an evolutionary process over the past 30 years. In 1974, the State Council of Higher Education for Virginia (SCHEV) and the Virginia State Board of Nursing approved the baccalaureate nursing program at Mason. The Masters degree in nursing started four years later. In 1985 the Department of Nursing became the School of Nursing and one year later admitted the first class of students to the Doctor of Nursing Science program, which became the Doctor of Philosophy in Nursing degree program in 1989. Throughout the history of nursing at Mason, there has been sustained and widespread support of the programs from the greater Northern Virginia health care community and the graduates of the program. For the past 10 years, the graduate nursing program has consistently been ranked among the top 50 programs in the United States (U.S. News and World Reports, 2005).

Building on the rich tradition in the nursing programs for addressing the health care needs of the growing Northern Virginia region, in 1993 the School of Nursing and the Department of Human Services merged to form a new multidisciplinary College of Nursing and Health Science. Since then, graduate and undergraduate programs have been added in various health related disciplines including certificates, degrees and concentrations in health systems management, health information technology management, health policy analysis, assisted living, and gerontology. Today, CNHS has over 1400 students enrolled in graduate and undergraduate programs of study in nursing, health systems management, and health science. In May, 2005 the College graduated 404 students including 12 PhDs in Nursing, 3 Master of Science degrees in Health Science, 17 Master of Science graduates in Health Systems Management, 95 Master of Science in Nursing degrees, 40 Bachelor of Science degrees in Health Science, and 237 Bachelor of Science in Nursing degrees.

Changes in the Northern Virginia region have been brought about by rapid growth in a number of sophisticated and high tech fields. While many parts of the state have experienced flat or reverse growth, the Northern Virginia region has had and continues to have sustained population growth and desirable employment opportunities. The region includes a highly educated, multicultural citizenship with complex needs for health promotion, disease prevention, acute, chronic, and long-term care.

One important indicator of quality of life for members of any community is access to adequate health and human services (HHS). As members of the only state

university in the region, Mason faculty members have always felt a strong obligation to provide for the higher education needs of the regional workforce. The desire for a well developed strategic plan for future HHS offerings at Mason that would fill current gaps and anticipate future demands was the stimulus for the 2005 Provost's Health Commission. At the first meeting of the Commission, Provost Stearns discussed the growing needs in the region for a diverse and highly skilled health and human services workforce, and the interests of many stakeholders in addressing these needs, as quickly and efficiently as possible. His charge to the Commission was to:

“develop a shared vision for the expansion of health and human services educational programs at George Mason University and the array of community service and research opportunities that come with these programs.”

The Health Commission was configured to allow for representation by faculty in the existing College of Nursing and Health Science, members of academic units from across Mason campuses with interests in or established relationships with health and human services, stakeholders in the Northern Virginia region, and state representation through involvement of the Virginia Secretary of Health and Human Resources. Members of the Commission were provided with a series of presentations, taken through small group exercises and brainstorming processes, and given pre-meeting assignments in order to maximize the face-to-face interactions during meetings of the full Commission. The overall organization of the events and activities was designed to move the group from general discussions about the HHS needs of the region to specific recommendations about how George Mason University should respond to the health and human service needs of the region over the next 10 years.

The principles upon which the Health Commission conducted its deliberations and developed priority recommendations included:

- The importance of collaborations (new and on-going) with regional health systems, Northern Virginia Community College academic career ladder programs, and Mason academic units and interdisciplinary colleagues;
- The need to avoid duplication (internal and external) of efforts;
- Prudent use of available resources and financial investments;
- Integration or complementing, where feasible, the strategic priorities of Northern Virginia health service providers, human service providers, and other Mason academic units; and
- The responsibility of Mason to address current and emerging health and human services educational needs of the region.

Among the documents and presentations provided for the group were:

- A matrix of HHS related Institutes, Centers, and campus resources currently available at George Mason University
- The report titled, *Indicators of Health Communities 2003: Northern Virginia Region*
- Excerpted data from *Healthy People 2010*
- Three current healthcare workforce shortages reports for both Northern Virginia and the National Capital Region
- Overview of the National Institutes of Health 2006 Roadmap For Funding Priorities
- Lists and definitions of current and emerging careers in HHS professions
- Overview of various approaches in the organization and governance of contemporary academic entities
- External and internal opportunities for collaborations as a result of expanded HHS offerings at Mason

The organization of this report follows the sequence of meetings and deliberations carried out by the group. Thus, the logic and rationale behind the specific set of

recommendations by the Health Commission for programs at Mason should be apparent from the text of the report.

Future Needs and Existing Programs

Commission members were taken through an iterative workgroup process that included reviews and discussions of demographic and health trends in the Nation, the Commonwealth of Virginia, and the Northern Virginia region (U.S. Department of Health and Human Services, 2000; Robert Wood Johnson Foundation, 1995; 2005; Virginia Center for Healthy Communities, 2003) through 2015. Based on these exercises, Commission members concluded that necessary care and services would relate to: (1) health promotion and disease prevention, including human nutrition and exercise, (2) bioterrorism and emergency preparedness, (3) chronic disease management, (4) rehabilitative and restorative care, and (5) environmental health and occupational safety. The systems that deliver these programs will need strong infrastructures that are responsive to changing public policy and innovations in care and practice. The most successful systems are likely to embrace principles of quality improvement, technological advances, and health economics; establish mechanisms to address health disparities; and create innovative ways in which clients can easily move across health care settings, with integrative approaches to care and services. The Commission members also identified four critical client groups for which regional programs would be targeted: (1) children and youth, (2) aged and disabled, (3) culturally, economically, and ethnically diverse populations, and (4) poor and low income families.

Current Programs at Mason

An array of HHS related Institutes, Centers, campus resources, and academic programs currently exist on the three existing Mason campuses (Arlington, Fairfax, and Prince William). Table 1 provided Health Commission members with an overview of existing Centers and Institutes, their academic affiliations in various colleges and schools, and their primary activities. As can be seen on the table, these Centers and Institutes include both basic and applied research foci on health and wellbeing. The members of the Commission were impressed by the abundance of HHS research intensive units and environments that currently exist on the Mason campuses.

In addition to the academic-based Centers and Institutes, a number of campus resources offer research, teaching, and practice linkages for HHS professions at Mason. These campus resources and their related activities are displayed in Table 2 and include such organizations as student health services and counseling services. This information was presented to Commission members because campus resources offer important practicum sites for students, and the professionals who work in them can be valuable colleagues and collaborators for faculty and students. To further highlight the value added by these campus resources to the learning environment, Figure 1 was developed for the Commission members to depict the many facets of resources on campus, such as the Counseling Center and the Health and Wellness Center.

In the earliest stage of discussion, Commission members were also provided with a list of degree and certificate programs already available in HHS related areas at Mason (see Table 3). As can be seen by this list, both graduate and undergraduate opportunities exist on all three campuses in the Colleges of Arts and Science, Education and Human

Development, Nursing and Health Science, and New Century College. In addition, relevant programs are available in the School of Information Technology & Engineering, the School of Public Policy, the School of Computational Sciences, and the Institute for Conflict Analysis and Resolution.

The review of these programs was instructive for two reasons. First, the exercise revealed that a strong mix of traditional and contemporary HHS programs already exist at Mason, which provide the depth and breadth of study one would expect at a research university. Second, links among existing programs were identified early in the Commission meetings. For example, elements of traditional studies in public health were easily identified by several members of the Health Commission when the array of existing HHS programs was reviewed and discussed.

Table 1: Health and Human Services Related Institutes and Centers at Mason as of Spring 2005*

*Perform a variety of educational, service and research activities, as described in mission statements

Center/Institute	Activities
Center for the Advancement of Public Health College of Education and Human Development	Conducts evaluation, strategic planning, course materials, and training on a range of health and safety issues.
Center for Biomedical Genomics College of Art and Science	Combines Molecular Biology and clinical problems to study health issues such as cancer, and infectious diseases
Center for Child Welfare Department of Social work	Promotes and advances interdisciplinary research and policy, and provides technical assistance to benefit Latino children and families both domestically and abroad.
Center for Health Policy Research & Ethics College of Nursing and Health Science	Analyzes national and international issues in health care. Provides forums in which to study, discuss, and understand the impact of policy on health care services.
Center for the Study of Genomic Liver Diseases College of Art and Science	Uses the advances in microarray technology and the human genome map to determine the genomic basis of diseases of the liver.
Helen Kellar Institute for Human Disabilities College of Education and Human Development	Combines resources from local, state, national, public, and private affiliations to develop products, services, and programs for all persons with disabilities.
Krasnow Institute for Advanced Study	Expands understanding of mind, brain, and intelligence using fields of cognitive psychology, neurobiology and computer studies.
National Center for Biodefense College of Art and Science	Designs biomedical research to develop unique approaches and techniques for the prophylaxis and treatment of infectious diseases and biological threat agents.
National Center for Public Safety Fitness College of Education and Human Development	Provides health and fitness information and training for public safety personnel.
Office of International Medical Policy School of Public Policy	Provides leadership and focus on global medical/public health policies and processes in the School of Public Policy at Mason.

**Table 2: Selected Inventory of Health and Human Services Related
Campus Resources at Mason as of Spring, 2005**

Campus Resources for Practice Partners and Practicum Sites	Activities
Counseling Center	Provides a wide range of services to faculty, staff and students. Provides individual counseling, group counseling, workshops and outreach programs.
Health Education Services	Delivers health-related information to the Mason community through awareness education and skill building activities.
Health & Wellness Center	Provides high quality health care, counseling, education and prevention services in support of student learning and retention.
Peer Empowerment Program	Provides emotional support, health promotion series, and outreach services for all students.
Sexual Assault Services	Provides primary information, education, intervention and referral for all university women and men.
Student Health Services	Provides all currently enrolled students with high quality health care services.
Selected Administrative Services for Infrastructure Support of HHS Programs	Activities Offered
Office of Institutional Research and Reporting	To define, collect, analyze, maintain and disseminate official institutional data, and to provide official institutional information to both internal and external constituents for the purposes of describing, documenting, and publishing institutional information and measures of effectiveness.
Office of Sponsored Programs	Provides guidance and support to the university community in its research efforts and creates an administrative environment which fosters the creative process and ensures protection of the university's financial and contractual obligations.

Figure 1: Selected HHS Related Student Programs and Services at Mason as of Spring, 2005

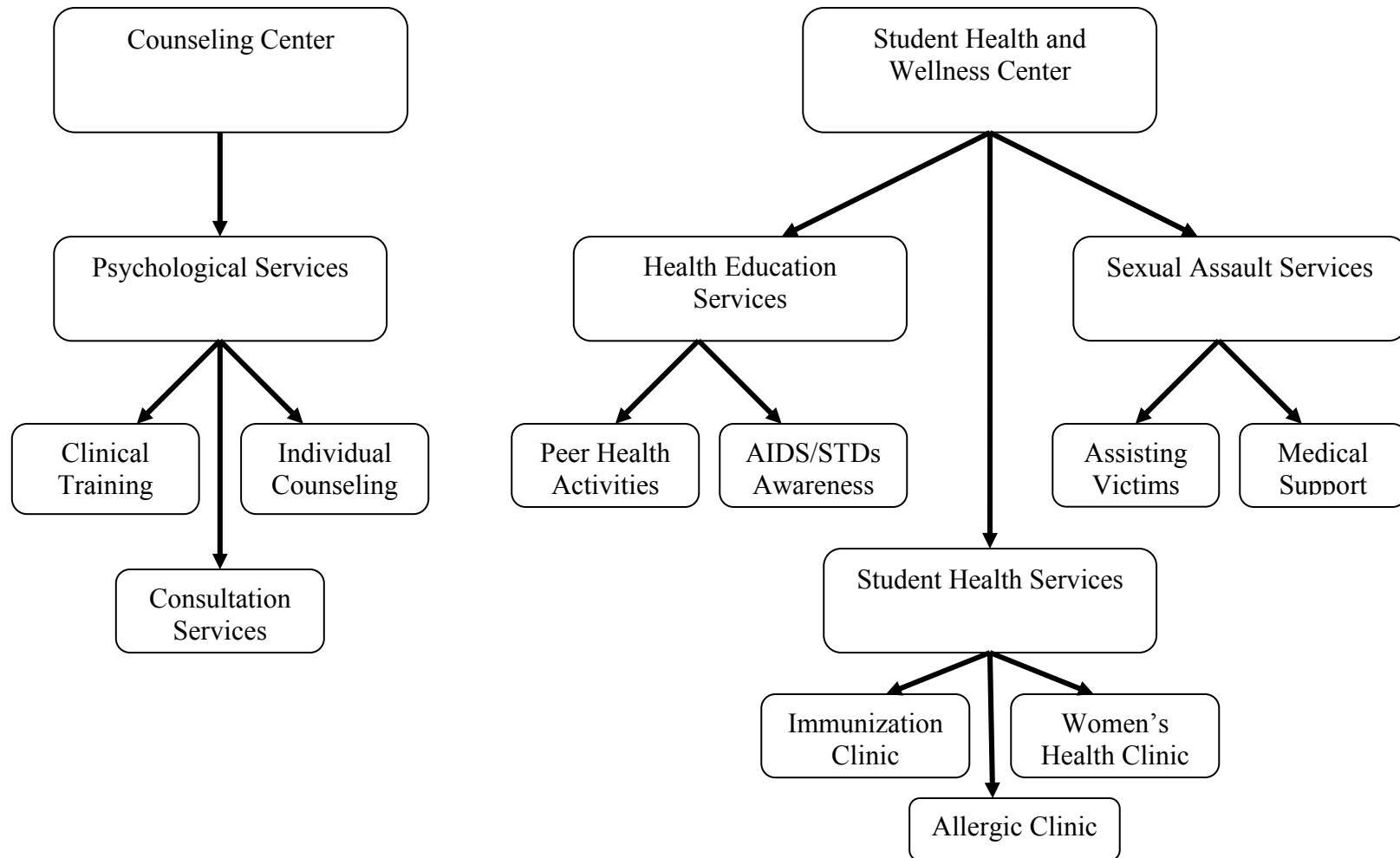


Table 3: Inventory of Selected Health and Human Services Related Degree and Certificate Programs at Mason as of Spring, 2005

Program Name	College	School/ Department	Type of Degree	Campus
**Assisted Living Administration	College of Nursing & Health Science		BS and Graduate Certificate	Fairfax
Bioinformatics		School of Computational Sciences	PhD	Fairfax
Biostatistics/Epidemiology (collaborative degree)	College of Nursing & Health Science Engineering	School of Information Technology &	MS (beginning spring, 2006)	Fairfax
Clinical Psychology	College of Arts & Science	Department of Psychology	PhD	Fairfax
Commonwealth MPH	College of Nursing and Health Science in collaboration with Eastern Virginia Medical School, Old Dominion University, and James Madison University		MPH collaborative multi-institutional degree	Internet-based degree (SCHEV approved but not active at the time of the Health Commission)
Conflict Resolution for Health Professional	Between CNHS and Institute of Conflict Analysis and Resolution	Institute of Conflict Analysis and Resolution	Graduate Certificate	Fairfax
Counseling and Development	College of Education & Human Development	School of Education	MS	Fairfax
Exercise, Fitness, and Health Promotion (EFHP)	College of Education & Human Development	School of Recreation, Health, and Tourism	MS	Prince William & Fairfax

Table 3 (continued)

Program Name	College	School/Department	Type of Degree	Campus
**Gerontology	College of Nursing & Health Science		MS also Graduate & Undergraduate Certificates	Fairfax
Global Medical & Health Policy	Between College of Nursing & Health Science and School of Public Policy		Graduate Certificate	Fairfax and Arlington
Health Care Security & Privacy	College of Nursing & Health Science		Graduate Certificate	Fairfax
** Health Care and Services Industry	Interdisciplinary Program/ E-Commerce	School of Information Technology & Engineering	MS	Fairfax
Health Fitness and Recreation Resources	College of Education & Human Development	School of Recreation, Health, and Tourism	BS	Prince William & Fairfax
Health Information Systems	College of Nursing & Health Science		MS and Graduate Certificate	Fairfax
** Health Policy & Administration	College of Arts & Science	Public & International Affair/ Public Administration	MPA	Fairfax
**Health Promotion	College of Education & Human Development	School of Recreation, Health, and Tourism	BS Ed	Fairfax and Prince William

Table 3 (continued)

Program Name	College	School/Department	Type of Degree	Campus
** Health, Risk & Crisis Communication	College of Arts & Science	Department of Communication	MA	Fairfax
Health Science	College of Nursing & Health Science		BS, MS	Fairfax
International Health Care	College of Nursing & Health Science		Graduate Certificate	Fairfax
Nursing	College of Nursing & Health Science		BSN, MSN, PhD	Fairfax
**Pre-Medical & Health Study	New Century College	Integrative Studies Program	Pre-Medical	Fairfax
Quality Improvement and Outcomes Management in Health Care Systems	College of Nursing & Health Science		Graduate Certificate	Fairfax
Social Work	College of Arts & Science		BSW and Undergraduate Certificate in Child Welfare	Fairfax
Social Work	College of Arts & Science		MSW	Arlington

** Programs that are a concentration area of a study

Knowledge Domains and Graduate Characteristics to Address Future Needs

Given the synthesis of national trends, regional needs, targeted client groups, and cross-cutting content areas for HHS delivery in the Northern Virginia region, Commission members next moved to identifying the priority professions, knowledge domains, and/or skill sets that should be addressed by educational programs at Mason. In this exercise, “priority professions” was meant to include traditional groups such as nursing and social work, and emerging professions such as health information systems specialists. The term “knowledge domain” was used to label an emerging field of knowledge that was not synonymous with a single existing profession, for example senior care. Finally, case management was the example used to describe a skill set that cuts across traditional disciplinary boundaries in social work, nursing, and health science. The goal of the exercise was to translate projected regional needs into HHS workforce requirements without restricting Commission members to a limited number of known professional labels. Thirty-two professions, 52 knowledge domains, and 35 skill sets were identified by the group.

Following an immersion into health care workforce shortage data and reports; descriptions of professions in allied health, public health, nursing, and human services; and a reexamination of the regional HHS needs (Greater Washington Board of Trade, 2005; Maddox, 2004; PricewaterhouseCoopers, 2005), Health Commission workgroups identified the top 10 disciplines or knowledge domains that were essential to future regional health and wellbeing. After considerable debate among the four workgroups, 12

priority needs for health and human service professionals were agreed upon by the total Commission.

As shown on Table 4, many of these priority programs are already offered at Mason as either degree or certificate programs. All members agreed that these programs will continue to be important aspects of the HHS landscape at Mason and their growth

Table 4: Summary of Priority Health and Human Service Programs for Mason: What is Already Offered and What is Missing, 2005

Italics: What is Already Offered as Either a Degree Program, Area of Concentration, or as a Certificate Program.

Bold: What is Missing at Mason

Bioinformatics/Health Information Systems

Computational Biology/Bio-Engineering

Dentistry

Health Systems Management (BS, MS, PhD)

Health Sciences

Gerontology

Nutrition

Health Care Coordination

Assisted Living Administration

Medicine

Nursing (BSN, MSN, PhD)

Pharmacy

Public Health (the five essentials of accredited programs*)

Health Administration/Health Systems Management

Biostatistics

Epidemiology

Behavioral Science/Health Education (BS, MS)

Environmental Health/Occupational Safety

*(*4 of 5 essentials present within current GMU offerings)*

Rehabilitation Science

Senior Care

Social Work (BSW, MSW, PhD)

Translational Biomedical Research Specialist

Behavioral Scientist

Virtual Learning Systems Specialist/Smart Systems

and development must be supported well into the foreseeable future. Equally as important, however, was the identification of a set of priority programs that are **currently missing** at the University and that will also be essential HHS offerings for the region.

Expansion Priorities for HHS Programs at Mason

Priority HHS programs at Mason include public health, Rehabilitation Science, senior care, doctoral education for social work, dentistry, medicine, and pharmacy. From this list, the first four areas were designated as immediate priority programs for Mason. ***The Health Commission recommends establishing an expanded multidisciplinary College of Health Sciences and Human Services (working title) that will field program expansion and support new program development, including research, in these priority areas. The expansion includes an initial reorganization of the existing College of Nursing and Health Science into an organizational structure that can support this growth. Reorganization should commence immediately and be completed by Fall, 2006.***

Each of the immediate priority areas respond to the most urgent population/system needs in the region. Each of these four priorities is discussed in the following sections along with a description of the ways that each priority builds on existing strengths and resources at George Mason University.

Public Health

The mission of Schools of Public Health is to bring about “conditions in which people can be healthy” (Institute of Medicine, 1988). Historically, public health programs focused on infectious diseases and population health. In contemporary times, the focus on population health has grown to include: assessment and monitoring the health of

communities and populations at risk, formulating public policies designed to solve local and national health problems, and assuring that all populations have access to appropriate and cost-effective care (American Public Health Association, 1995).

Most Schools of Public Health require students to take, at a minimum, courses in Biostatistics and Epidemiology, Health Administration, Environmental Health, and Behavioral Sciences (Association of Schools of Public Health, 2004). In addition to the required core, some Schools of Public Health also include programs in International Health, Biomedical & Laboratory Practice, Nutrition, Public Health Practice & Program Management, Maternal and Child Health, Occupational Safety and Health, Genetics and Complex Diseases, and Health Informatics. Careers in Public Health now take place in universities, for profit and nonprofit health care organizations, and the more traditional local and state health department settings. Recently the American Medical Association (2004) predicted that Public Health programs of all types will be under increased pressure to expand all of their activities in order to keep pace with population demands. As just one example of demand, in July, 2005 a member of the Health Commission searched for “positions in Biostatistics and Epidemiology” on the Internet and received 60,000 matches on the key words.

Mason currently has four of the five pillars of accredited Schools of Public Health. Two programs are housed in the CNHS: Health Administration/Health Systems Management and a recently approved master’s degree in Biostatistics/Epidemiology to be offered with the Statistics Department in the School of Information Technology and Engineering. A third related undergraduate program in Health Promotion and Disease Prevention resides in the School of Recreation, Health, and Tourism of the College of

Education and Human Development. Strong collaborative potential also exists in the Communication Department with respect to existing programs in Health, Risk and Crisis Communication and a new PhD in Health and Strategic Communication that is planned for implementation Fall, 2006. Furthermore, a new PhD in Health Services Research and Policy will be reviewed in Fall, 2005 by the State Council for Higher Education in Virginia for implementation by CNHS in 2006. Both of the new PhD programs create classic arenas for interdisciplinary research in public health and the health sciences.

Finally, it was noted that CNHS has been a collaborator in the multi-institutional Commonwealth Masters degree in Public Health (MPH) program since its approval by SCHEV in 2003. Unfortunately, due to unrealized financial support from the parent institution, this innovative distance education program has never admitted students. The Health Systems Management program in CNHS has been prepared since approval of this degree to support teaching and research in multiple areas of the MPH essentials. Mason is uniquely positioned to link these programs for a major Public Health presence in Northern Virginia.

The Health Commission recommends the creation of a School of Public Health in the College of Health Sciences and Human Services by Fall, 2010 with the goal of offering a Mason MPH degree. In order for this important programmatic change to occur, three steps are required. First, by Fall, 2008, Mason must establish an interdisciplinary MS degree in Behavioral Health as a joint offering between the expanded college, the Communication Department and the School of Recreation, Health, and Tourism. Second, Mason must develop new MS degrees in Occupational Safety and Environmental Health to be housed in a new department by the same name

in the College of Health Sciences and Human Services by Fall, 2008. Finally, the existing programs in Health Administration and Biostatistics/ Epidemiology must be joined with the new programs in Health Behavior and Occupational Safety/Environmental Health to create the essentials for a Mason School of Public Health in the College of Health Sciences and Human Services by Fall, 2010.

Rehabilitation Science

According to the US Census Bureau (March 2003), there are approximately 49.7 million people with some type of long lasting condition or disability that limits their activity or affects their sensory, emotional, or environmental well being. This group represents almost 20% of the 257.2 million non-institutionalized population age five and over in the United States. Almost two out of every five people in this disability group lived in the southern states, which includes Virginia, at the time of the 2000 census. West Virginia has the highest rate of disability (24%) in the nation. Though still high, both Virginia (18.1%) and Maryland (17.6%) had lower rates of disability than the average across all states in the southern region (20.9%), while the District of Columbia had a slightly higher than average rate of disability (21.9%) for the southern region.

Disability is a complex concept that has subjective, objective, person-level and environmental components. The World Health Organization classifies functioning at the levels of body or body part, whole person, and whole person in social context. In contrast, disablements are physical or mental losses or abnormalities of bodily function and structure, limitations in activities, or restrictions in participation (formerly called handicaps) (Federal Interagency Forum on Aging-Related Statistics, 2000).

As the population of older adults continues to increase, there is an increase in disability rates associated with chronic illness. Changes in living environments and environmental pollutants are also causing increased levels of disability. Finally, medical treatment for serious conditions, such as cancer, may cure the disease while leaving the individual with permanent disablements. Thus, nationally, the area of Rehabilitation Science is one of the high growth areas projected for careers in the health sciences.

Rehabilitation Science programs at the undergraduate level are designed for students seeking a professional (entry-level) degree, such as in Physical Therapy, Occupational Therapy, Speech Therapy, and related programs. Students in Northern Virginia have access to an outstanding array of programs in Rehabilitation Science through the Medical Education Campus of the Northern Virginia Community College. It is neither prudent nor cost effective for Mason to duplicate these programs. However, the post-professional degree in Rehabilitation Science offers students an opportunity for professional advancement as clinical specialists in areas such as orthopedics, geriatrics, pediatrics, and sports medicine. Mason is well positioned to provide the MS degree in Rehabilitation Science using a curriculum model that has been employed in nursing for accelerated study from the AS degree at the Community College to the MS degree at Mason. At the doctoral level, students at Mason would be equipped with the skills necessary to engage in collaborative research around topics in Rehabilitation Science, develop evidence-based rehabilitation protocols and strategies for improvements in health care systems, and contribute rehabilitation expertise to interdisciplinary programs of basic and applied research on human functioning and disablements.

In January, 2006, Dr. Lynn Gerber will join the faculty of George Mason University in the College of Nursing and Health Science to develop a new Center for Chronic Illness and Disability (C-CID). Dr. Gerber is currently the Director of Rehabilitation Medicine at the National Institutes of Health. Her arrival will offer a competitive advantage for an expanded College of Health Sciences and Human Services to develop high quality educational programs and related research in Rehabilitation Science. *The Health Commission recommends developing both MS and PhD degree programs in Rehabilitation Science. Collaboration with the programs at Northern Virginia Community College is recommended for the creation of an accelerated AS to MS degree for students in their Rehabilitation Science programs. This innovative model requires some undergraduate general education courses and bridge courses to the MS program. The implementation date should be Fall, 2008 followed immediately by implementation of the PhD in Rehabilitation Science in Fall, 2010.*

Senior Care

Currently, 35 million Americans are over age 65. As the more than 34 million Baby Boomers (those born between 1946 and 1964) age, older adults will represent an increasingly larger portion of the total U.S. population. By age 65, most individuals have at least one chronic health condition. However, medical advances in health care and cohort differences in life style choices and personal behaviors have led many scholars to speculate that aging Boomers may experience less impairment and disability than prior generations of older adults at the same ages. Aging Boomers are also demanding more from the workplace where they expect healthy environments and adaptations to their changing functional needs. How and where aging Boomers will chose to spend their older

adult years is an important question for those who study aging trends and the senior care market place. It is likely that wellness, quality of life, and sustained functioning will be persistent themes among aging cohorts well into the future. Understanding how to respond with appropriate goods and services for the aging consumer will be the challenge.

CNHS currently houses two related educational programs: a program in Assisted Living Administration, and a program in Gerontology. These two programs provide a rich and supportive environment for future initiatives to address contemporary programs in senior living and senior care. They are also important compliments to current discussions at Mason regarding the development of a University-Based Retirement Community (UBRC) on the Mason Fairfax campus. This initiative would create a learning laboratory within which an innovative program in senior living and senior care could grow and prosper, and where scholars could create the new science of senior care and services for the aging Baby Boom generation.

The Health Commission recommends building on existing programs at Mason to create both an undergraduate certificate and a MS degree in Senior Life and Wellness Services (working title). Both of these options should be ready for implementation in the expanded College of Health Sciences and Human Services by Fall, 2008.

Doctoral Education in Social Work

The existing Social Work Department at Mason offers a Bachelor's Degree in Social Work (BSW), nationally accredited for over 25 years, and a Master's Degree in Social Work (MSW) initiated in 2002. It is anticipated that the MSW will be fully

accredited by the Council on Social Work Education (CSWE) in February 2006.

Together, the two programs prepare hundreds of students each year to provide services to children, adults, older adults and families through public, private, and faith-based organizations. MSW students in particular emerge as leaders in social policy, community practice, and human service agency administration.

The addition of a PhD degree in Social Work would complete the educational continuum, permitting an emphasis on research, teaching, and advanced social work practice. A faculty committee has been appointed to begin developing a proposal, with the goal of admitting students in 2010. Broad areas of focus under discussion include international social work and intergenerational practice, both of which build on existing faculty expertise and respond to projected social service needs within the region. With the addition of a PhD, the Social Work Department would become a School of Social Work, bringing it more closely in line with the status afforded Social Work in most other major universities.

There is no question that a need for a PhD program in Social Work exists. Despite the fact that the number of doctoral programs in Social Work has proliferated in recent years, the actual number of PhD graduates has remained constant at approximately 250 annually. This phenomenon is considered by the Group for the Advancement of Doctoral Education (GADE) to constitute an “immediate crisis.” A PhD in Social Work at Mason would help to fill this void. Mason graduates would have the skills to generate and disseminate new knowledge relevant to improving policy and practice in health and human services. They would also be qualified to teach in BSW through PhD programs

nationwide, helping to prepare others to improve conditions within our local communities.

The Health Commission recommends the creation of a PhD in Social Work to be implemented by Fall, 2010. Furthermore, the Commission recognizes the need for a semi-autonomous structure in which professional programs, such as Social Work can grow and thrive. Therefore, the Commission recommends developing a School of Social Work in Fall, 2011.

Longer Term Priorities for George Mason University

In addition to the set of immediate priorities just described, the Commission discussed the value of developing Mason programs in Medicine, Dentistry, and Pharmacy. While the population is both increasing in size and experiencing major shifts in health care needs related to increased life expectancy and rising prevalence rates of chronic illness (Robert Wood Johnson Foundation, 1996), medical school admissions have remained relatively flat across the United States since 1997 (American Medical Association, 2004). Moreover, access to certain types of medical care, such as primary care, is uneven across the Commonwealth and the nation. In June, 2005, the American Medical Association reported concerns about an impending physician shortage in the U.S. and commented on the challenges of determining the existence and scope of a potential shortage versus maldistributions across the country.

In response to an increasing number of published commentaries and studies concluding that there is or soon will be a shortage of physicians, in general, or in specific specialty areas, the federal Council on Graduate Medical Education (COGME) recommends a 15% increase in medical school enrollment and an increase of 3000 entry-

level residency positions. This is a reversal of previous COGME policy that predicted a significant surplus of physicians. The Association of American Medical Colleges (AAMC, 2005) also recommended a 15% increase in US medical school enrollment by 2015. Given current concerns about physician workforce inadequacies, Mason should review resources and opportunities for new medical schools. Similarly, the closest public funded Pharmacy or Dental Schools for the Northern Virginia region are in Richmond. *The Health Commission recommends establishing study groups to explore in-depth the feasibility of professional schools in Medicine, Pharmacy, and Dentistry at Mason.*

Current and Emerging Opportunities for Research

In considering an expanded College of Health Sciences and Human Services, Commission members were asked to envision the research synergism that could result from a group of HHS programs that were housed in the same college. On overview of funding opportunities centered on The National Institutes of Health (NIH), because this federal structure is the primary source for funding of biomedical and behavioral health research in the United States.

In brief, NIH has 27 Institutes and Centers that support both intramural and extramural programs of research. Recently, NIH developed a trans-NIH initiative or roadmap aimed at accelerating the pace of discovery and improving translation of research findings into medical and health interventions. The roadmap comprises 28 initiatives grouped under three themes:

- New pathways to discovery focused on intra- and intercellular mechanisms
- Research teams of the future focused on new ways of combining skills and disciplines in the physical, biological, and social sciences, training investigators, and develop novel support mechanisms to facilitate these endeavors

- Re-engineering the clinical research enterprise to capitalize on the revolutionary discoveries emerging from basic sciences, focused on new technologies, integration of clinical research networks and developing clinical research policies, development of better means to assess pain, fatigue and other subjective clinical outcomes, and support key elements of the translational research infrastructure.

For 2006, NIH specified the following areas of emphasis: (1) formal regional translational (bench to bedside) research Centers, (2) neuroscience research, (3) obesity research, and (4) alleviation of health disparities in three specific areas (community-based participatory research, epidemiologic studies focusing on lung-cardiovascular disease, and cancer).

Given the federal research priorities, as well as private foundation and public health priorities, members of the Commission were asked to identify internal and external research opportunities that a College of Health Sciences and Human Services should pursue and cultivate. The discussion of the Commission workgroups incorporated information about seven areas of opportunity in the existing College of Nursing and Health Science that would remain in an expanded College of Health Sciences and Human Services at Mason.

First, the College is comprised of professional programs in nursing that have practice expectations of many of the faculty members in the programs. Building upon strong educational programs, an expanded College of Health Sciences and Human Services should have an increased emphasis on professional practice-focused research, including translational research that interprets and tests results in clinical settings. Therefore, recent discussions in CNHS have included recognition of the need for non-redundant practice clinics on the Mason campuses and surrounding areas that would serve as living laboratories for innovations in practice and health care management.

Second, in partnership with others outside the University, a University-based retirement community offers another type of living laboratory in which many aspects of aging and senior care can be studied, exemplars in business practices can be developed, and lessons learned can be disseminated by the University. **Third**, a special interest group has formed on campus to explore the national movement toward electronic health records (EHRs). Multiple programs on campus are represented in this interest group and at least one major health care system has indicated an interest in partnering with the University to meet the needs of systems, their providers, and client groups in creating organized and connected data bases. **Fourth**, a new conference center for the Fairfax campus offers many collaborative opportunities for new educational programs in the areas of hospitality and food service to link with existing programs in event management and nutrition in the College of Education and Human Development and the College of Nursing and Health Science, respectively. **Fifth**, the globalization of Mason programs provides an international platform on which to expand several existing health related programs in CNHS, such as the relatively new program in International Health and the Health Policy Analysis track in the Health Systems Management graduate program. **Sixth**, homeland security and threats from bioterrorism and other hazards are likely to remain important issues well into the foreseeable future. Knowledge of disaster planning and the educational preparation of health and human service providers to be first responders and disaster plan managers will be based in colleges that house these professional programs. **Seventh**, at the core of professional programs are goals for ameliorating suffering and promotion health and wellness. Existing programs of research at Mason share this common theme and create a strong foundation on which to collaborate across disciplinary

boundaries. Following the presentation of these seven opportunity areas, the Commission workgroups identified the following internal collaborative partnerships:

- Biology
- Business
- Communication
- Education
- Engineering
- Information Management
- Internet II
- Marketing
- Mason Academic Research Organization (clinical trials)
- Prince William Bioscience activities
- Krasnow Institute for Advanced Studies
- A Mason Practice Plan for Clinician

One interesting aspect of the exercise was the realization that there are very real connections on campus that are either partially developed or remained undeveloped at this time. In an age in which cross-disciplinary and interdisciplinary collaboration is valued, a review of the internal possibilities for HHS collaborations at Mason was very informative and stimulated a great deal of creative thought among Commission members about potential for the future. When the workgroups turned their attention to external collaborative opportunities, the list of potential external partnerships included:

- Healthcare Service Organizations (acute, ambulatory and long-term care)
- American Health Information Association (AHIMA) www.ahima.org
- Colleges in Northern Virginia and DC
- District of Columbia Hospital Association
- Economic Development Boards
- Howard Hughes Janelia Farms
- National Institutes of Health (and other federal entities/agencies)
- IT Industry in Northern Virginia
- Statewide Virtual Center on Alzheimer's Disease (Dept of Aging)
- Sunrise Senior Living partnerships
- Virginia Center for Innovative Technology
- Virginia Department of Health (including local health departments of health and VA Telehealth initiatives)
- Virginia Hospital & Healthcare Association
- Workforce Development Boards

This part of the exercise underscored the unique regional connections that exist for expanded programs of research at a university in Northern Virginia. Moreover, consistent with current Virginia Commonwealth priorities for focused interdisciplinary collaborations, an expanded College of Health Sciences and Human Services could help to complete “bench to bedside” research collaborations for multiple Mason units.

At the conclusion of these discussions, it was clear that an expanded College of Health Sciences and Human Services should be proactive in connecting faculty who have clinical backgrounds with internal and external research partners. Therefore, *the Health Commission recommends creating provisions at Mason for broadly defined faculty clinical practice opportunities by Fall, 2007.*

Optimal Organizational Structure and Name of an Expanded College for Health and Human Service Programs

Organizational structures represent the patterns of interactions and coordination that link the tasks and human components of an organization in order to accomplish a stated purpose and goals. Effective organizational structures facilitate the flow of information within the organization, which in turn facilitates decision making and enhances coordination and integration across the parts of the organization. Complex organizations usually require more information and a mixed decentralized structure to maintain a dynamic and competitive edge (Nadler, et al., 2002).

There is no “one size fits all” blueprint for the governance of academic enterprises (Baldrige, 1971; Whetton & Cameron, 1985). Academic structures can be simple or complex, static or dynamic, depending on the environments in which they operate. Communication, effective decision making, and economies of scale with little duplication

of effort are important principles of academic organizations. However, unique to education entities, organization structure must also attend to issues of professional autonomy, academic integrity, faculty performance (teaching, service, and research), and curriculum oversight. It was noted during meeting of the Commission that these issues are monitored closely by specialized external accrediting bodies from various HHS professional entities (AACN/CCNE, 2001; AUPHA/CAHME, 2005). Currently, and in the foreseeable future, the environment in which the University operates will be complex and dynamic. Successful programs will require the ability to change rapidly in order to respond to demands for scientific and technical innovations, health and human service workforce development needs, and evolving public health and clinical service priorities.

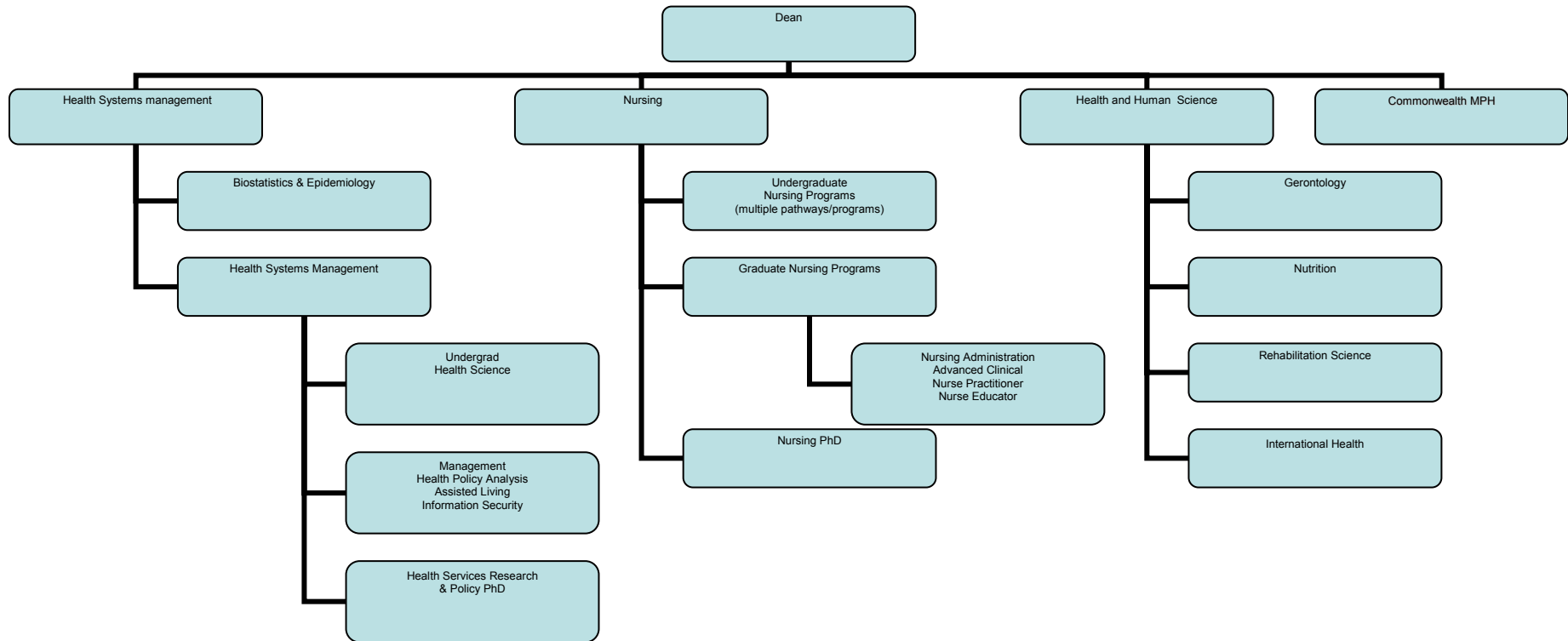
Commission members were asked to consider the needs of the region, the gaps in educational programming that currently exist, and the priority programmatic areas identified by the Commission in order to propose an organizational structure for an expanded College of Health Sciences and Human Services. The structure also must be based upon careful consideration of two goals. First the structure had to allow for adequate growth and development of existing programs that would provide the curriculum ownership expected of various accrediting bodies of the programs of study. Second, there was a need to create an organizational structure that would allow for maximum future growth in educational offerings, including programs in Public Health, Rehabilitation Science, and Senior Care.

Figure 2 was the prototype decentralized model offered to the members of the Health Commission in order to stimulate discussion about existing programs in the current College of Nursing and Health Science from which logical programmatic clusters,

academic units, and formal affiliations could emerge. During the months of February through April, when the Commission was in session, discussions were also underway by faculty in the Department of Social Work in the College of Arts and Sciences regarding their interest in joining an expanded College of Health Sciences and Human Services, and to become a School of Social Work. Given the interest in the very short term of another program moving to the College as soon as Fall, 2006, it was important to be prepared to receive new academic units sooner rather than later. This information was also conveyed to members of the Commission as they deliberated about organizational structures.

In offering the exemplar in Figure 2, no effort was made to add the management /leadership structure for the College. Rather, workgroups were asked to think about organizational options that could support the development and operations of the existing CNHS programs and services and to consider how reorganization might facilitate future expansion, such as movement into the College by the Department of Social Work.

Figure 2: Exemplar Decentralized College Structure For Existing Programs in CNHS as of Spring, 2005



Ultimately, the consensus of the four Commission workgroups was to create a new college structure from the existing College of Nursing and Health Science that maximized growth potential for multiple educational offerings in a decentralized administrative structure consisting of schools and departments. Departments could either be discipline-specific or contain a set of related programs of study that fit under an interdisciplinary umbrella, such as Health Studies. Schools would be more complex organizational units in terms of the array of tracks and degree options (baccalaureate through doctoral studies) offered by the unit. As departments grew in size, complexity, and research productivity, they could be given the option of evolving into schools or joining with other departments to form a school, such as a School of Public Health. Creating a structure of schools and departments within a college provides an infrastructure to support all academic programs with minimal duplication of resources and maximum economies of scale. This model is popular on campuses where strong interdisciplinary and multidisciplinary collaborations are valued, such as with HHS related programs.

The last exercise by members of the Health Commission was to suggest a working title for a college with expanded HHS offerings at Mason. A lively and sometimes passionate discussion resulted in numerous suggestions such as: Health and Human Service Professions; Health and Human Sciences; Health and Human Services; Nursing, Health and Human Services; and Nursing, Public Health, and Human Services.

The Health Commission recommends the College of Health Sciences and Human Services as a working title for discussion about an expanded college.



The summary of the final set of recommendations by the 2005 Provost's Health Commission include the following:

1. Establish an expanded multidisciplinary College of Health Sciences and Human Services (working title) through reorganization of the existing College of Nursing and Health Science in order to accommodate expanded HHS programs at Mason by Fall, 2006.
2. Establish a School of Public Health in the expanded College of Health Sciences and Human Services by Fall, 2010.
 - a. Develop an interdisciplinary MS degree in Behavioral Health as a joint offering between CHSHS, the Communication Department, and the School of Recreation, Health, and Tourism to be implemented by Fall, 2008.
 - b. Develop MS degrees in Occupational Safety and Environmental Health in consultation with others on campus in a new department by the same name by Fall, 2008.
3. Implement MS degree program in Rehabilitation Science by Fall, 2008 and the PhD in Rehabilitation Science by Fall, 2010 in the College of Health Sciences and Human Services in collaboration with other academic units, Research Centers and Institutes on campus.
4. Implement both an undergraduate certificate and a MS degree in Senior Life and Wellness Services in the College of Health Sciences and Human Services by Fall, 2008.
5. Implement a PhD in Social Work by Fall, 2010. The Social Work program should transition to a School of Social Work in the College of Health Sciences and Human Services by Fall, 2011.
6. Create provisions at Mason for faculty in the expanded College of Health Sciences and Human Services and others on campus to engage in broadly defined faculty clinical practice opportunities by Fall, 2007.
7. Establish study groups to explore in-depth the feasibility of developing Schools of Medicine, Pharmacy, and Dentistry at Mason.

Conclusion

The members of the Provost's Health Commission respectfully submit this final report to President Alan Merten and Provost Peter Stearns for their review and comment. We appreciate the opportunity to think about expanded HHS programming for the Mason campuses and have done our best to provide practical and realistic recommendations about possible next steps in meeting the regional educational needs.

Throughout the process we were mindful of the rich tradition and history of the existing College of Nursing and Health Science. Our recommendations are intended to build on this tradition of excellence in order to actualize the great potential that an expanded multidisciplinary college can offer to future Mason students, to the citizens of the region, and to the Commonwealth of Virginia.

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