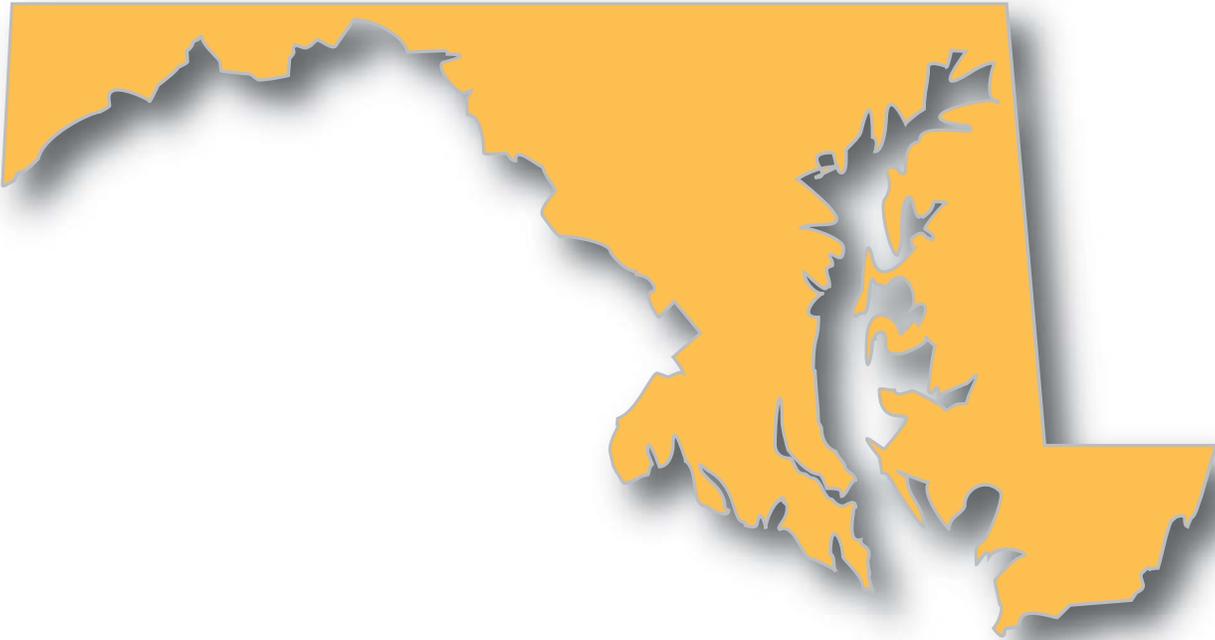


Maryland's Allied Health Industry Workforce Report and Recommendations



Presented by:
Governor's Workforce Investment Board
Healthcare Industry Initiative Steering Committee
Allied Health Professions Subcommittee

June 2009



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Maryland’s healthcare industry remains one of the few stable industries in the state during the current recession. This is, in part, due to an aging population with increasing healthcare needs, health issues associated with lifestyle, affluent baby boomers able to pay for elective healthcare, and an influx of government jobs as a result of the Base Realignment and Closure Act. The healthcare industry is supported by world-class healthcare and research facilities and nationally recognized education institutions.

While much has been made of the severe shortage of nurses in Maryland, other allied health professions are experiencing similar critical shortages. Recognizing this, the Governor’s Workforce Investment Board’s (GWIB) Healthcare Industry Initiative Steering Committee appointed a subcommittee to review allied health professions. The subcommittee was tasked with determining those professions experiencing significant shortages, the extent to which those shortages exist, and making recommendations for addressing shortages in an appropriate and viable manner. The findings of the subcommittee are outlined below.

Allied Health Defined

Allied health professionals are health care practitioners with formal education and clinical training, credentialed through certification, registration and/or licensure.

The Association of Schools of Allied Health defines allied health as follows. “Allied Health professionals are involved with the delivery of health or related services pertaining to the identification, evaluation and prevention of diseases and disorders; dietary and nutrition services; rehabilitation and health systems management, among others. Allied health professionals, to name a few, include dental hygienists, diagnostic medical sonographers, dietitians, medical technologists, occupational therapists, physical therapists, radiographers, respiratory therapists, and speech language pathologists.”

Trends and Influences Affecting Maryland’s Allied Health Workforce

Outlined below are the top healthcare trends identified by the subcommittee as influencing healthcare occupations - and the demand for those healthcare professionals - within the next ten years. They are organized into two groups: the top six areas that will have a major impact across all healthcare professions; and four other trends that are expected to have a substantial impact on healthcare professions.

One area of anticipated change that may substantially affect the composition of the healthcare workforce, as well as the focus of many types of health professionals in their practice, is the increasing focus on health promotion, wellness, and self-management of health conditions. A key discussion for the subcommittee centered on the changing concept of healthcare, with the potential for greater focus on “self-care” of health issues with the guidance of healthcare professionals rather than reliance on care by health professionals.

It is believed that some disciplines will shift to more of a preventative medicine focus to address health promotion to a greater extent, rather than the traditional reactive and predominantly disease-related, chronic condition-related care of patients. Other disciplines may be added to the list of currently identified health professions, particularly those who are involved specifically with nutrition, exercise and aging populations.

Six Key Trend Areas

1. ACCOUNTABILITY: Accountability is increasingly important as it relates to evidenced-based practice and affordability of healthcare. It impacts how healthcare is delivered and its costs, requiring increased documentation by (and increased documentation skills of) healthcare professionals, advanced technology, and increasing numbers of healthcare professionals to manage health data. A new field of “healthcare infomatics” has evolved, in part as a result of increased accountability requirements.

2. AGING POPULATION: As our population lives longer, increased numbers of older adults with more health issues will require healthcare professionals in almost all disciplines to have significantly enhanced knowledge and skills in working with older adults. These older adults will include those who are healthy, those with one or more chronic conditions, and those who are frail and/or have dementia. Maryland has one of the fastest growing aging populations in the country. The population of people ages 65 years and older in Maryland is projected to grow five times as fast as the overall population of Maryland between 2010 and 2030. (Maryland Department of Planning Data)

3. PATIENT/CLIENT SAFETY: Safety and liability issues are anticipated to influence changes in healthcare practices and in documentation. As concern for safety increases, there will be a resulting increase in the focus on liability in patient/client care.

4. TECHNOLOGY: Technology will increasingly influence the work of the health professional in both clinical and administrative areas of healthcare. Use of telemedicine and other technology to address healthcare issues is expected to increase. Self-care will increase as individuals have more access to health information via use of technology, and thus become more active participants in the healthcare process. This is likely to lead to increased patient/client expectations of the knowledge and skills of healthcare professionals, as well as their communication with them.

5. ACCESS: Access to healthcare services is anticipated to be a major concern, as services become increasingly unevenly available to the public. Access will be affected particularly by insurance (or lack of insurance), geographic location (rural vs urban – see Appendix), and cultural factors. Increasingly, healthcare services will be delivered outside of the traditional hospital setting.

6. DIVERSITY: Diversity issues are creating new challenges and expectations, including the need to address the diversity of the healthcare workforce, to increase the cultural competence of healthcare professionals, and to appropriately and equitably address healthcare issues of a diverse patient/client population. In addition, healthcare managers will need to recognize differences in generational attitudes and perspectives of their employees toward work and work environments. The need for healthcare services – and requests for services - will become increasingly impacted by generational attitudes. Maryland is a very diverse state that continues to diversify, largely due to trends in immigration and an aging population. In 2007:

- More than 35,000 foreign-born people became citizens or permanent legal residents in Maryland. (U.S. Department of Homeland Security)
- Fifteen percent of Maryland residents speak a language other than English at home. (U.S. Census Bureau)
- Maryland’s population is graying, with the 65 and older population growing rapidly. By 2020, there will be more than 1 million people ages 65 and older in Maryland. (Maryland Department of Planning Data)

Other Trends and Influences

PATIENT/CLIENT CHARACTERISTICS

- More special needs groups.
- Serious public health concerns such as obesity-related diseases.
- Changing and increasing expectations of healthcare services choices and quality.

LOCATION OF SERVICE DELIVERY

- Growth of private facilities.
- More community-based programs.
- Increase in need for home health services.

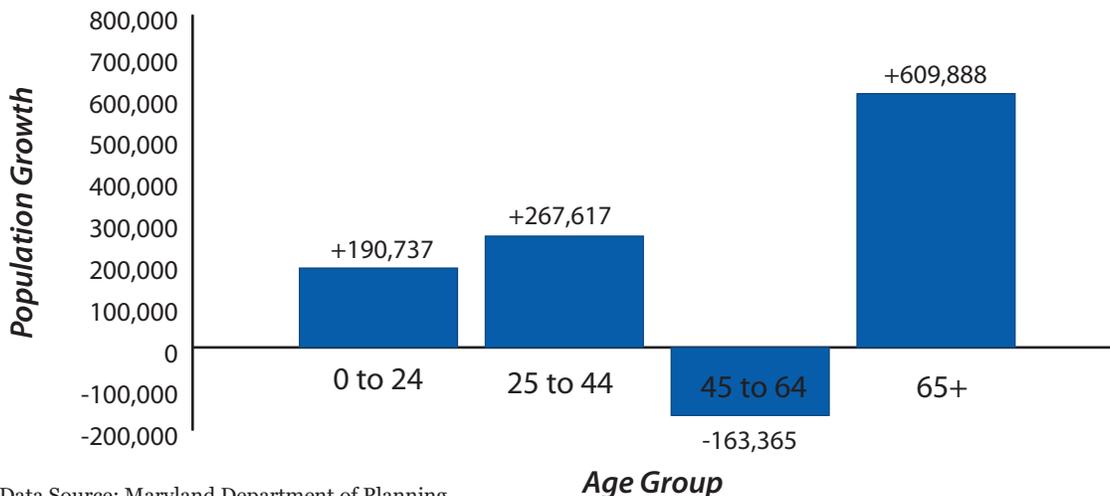
CHARACTERISTICS OF HEALTHCARE WORKERS

- May be more difficult to retain.
- Greater focus on own quality of life, affecting work hours and workplace expectations.
- Increasing interest in belonging to unions.
- More diversity in healthcare workers.

CHARACTERISTICS OF HEALTHCARE PROFESSIONS

- Increasing educational requirements, including “degree creep”
- Limited upward mobility in some professions
- Changing nature of healthcare professions in response to healthcare, population and technology trends. Some professions may see decreases in employment opportunities, while others have significant increases.

Graphic: Change in Maryland’s Population, by Age Group: 2010 to 2030



Data Source: Maryland Department of Planning

Critical Shortages in Maryland's Current and Projected Allied Health Workforce

OPPORTUNITIES TO IMPACT SHORTAGES

Maryland has three important assets that will aid in addressing the critical shortages in the health professions workforce:

1. Maryland is a state with a highly educated population overall and a unique payer system that can be utilized to support efforts to address workforce shortages.
2. Maryland has many renowned medical/health systems with numerous education opportunities.
3. Maryland has a large and comprehensive higher education system.

In general, healthcare professionals are less affected by unemployment and can find reliable, steady work in positions at all levels of education. Continuing professional advancement is available in most professions, which assures ongoing professional opportunities. Programs to create pipeline development are underway, disseminating information about health careers to students in PreK-12 as well as in higher education settings.

CHALLENGES TO IMPACTING SHORTAGES

Six major challenges affecting the efforts to address Maryland's health workforce shortages were identified. They are:

Faculty shortages: Faculty shortages have two main dimensions:

- The number of professionals with degrees needed for teaching positions (baccalaureate or masters for some associate degree programs, masters or doctorate for baccalaureate and higher programs).
- The disparity between faculty and clinical salaries, with some entry level clinical salaries being higher than full time faculty salaries. Part-time/adjunct faculty salaries are also very low in some areas.

Student access to academic programs: While academic programs exist in the high demand healthcare professions with workforce shortages, the following are critical issues:

- Some programs are only offered in one or two locations within the state, with individuals in more rural areas or areas away from major metropolitan areas typically having less access to all types of programs.
- It is very expensive for higher education institutions to undertake development and operation of health profession programs, particularly given the lower student-teacher ratios of most of these programs relative to many other academic programs. Additional dedicated space is required for labs in many disciplines, in addition to the equipment costs and accreditation costs for some programs. Since student recruitment and student prerequisite completion can take a year or more, start-up is much more costly than for other academic programs.
- The cost of healthcare academic programs, particularly programs at the higher degree level, can be a barrier for students – especially for disadvantaged students.
- The expectation of full-time enrollment in most health profession programs is a barrier to students who do not have the financial resources or time to devote to full-time study.
- Some academic programs that are typically offered at multiple degree levels in other states are only offered at one level in Maryland (e.g. the imaging science disciplines), or not at a particular level at all (e.g. substance abuse counseling), thus limiting the potential interest of students in the profession.

Clinical sites and clinical preceptors/supervisors: The following issues and concerns were noted:

- The limited number of clinical sites in some disciplines presents a substantial challenge, particularly when new academic programs are initiated.
- Although there is more need for professionals prepared in community-based and health promotion practice, fewer opportunities exist for required clinical placements in these areas than in hospitals and other sub-acute and rehabilitation settings.
- Clinical preceptors/supervisors are limited in number and may have little administrative support and/or have high demands for productivity that are not compatible with student supervision.
- Clinical preceptors/supervisors may have little education in the supervision of students within the discipline.

Prospective students in sufficient numbers: Many health professions programs do not have a student body that represents the diversity of the population with whom they will work. For some academic programs, having a sufficient number of applicants with the necessary prerequisite skills is a challenge.

Retention of health professionals:

- Reimbursement rates for services may be too low to support the retention of health professionals in some disciplines, particularly in high cost areas.
- Baby boomers, comprising a very large segment of the healthcare workforce, are beginning to retire, exacerbating healthcare workforce shortages.
- The cost of malpractice insurance in some professions is prohibitive.
- Reciprocity is too complex for health professionals who live near other states/DC and are required to have multiple licenses to practice in more than one state.

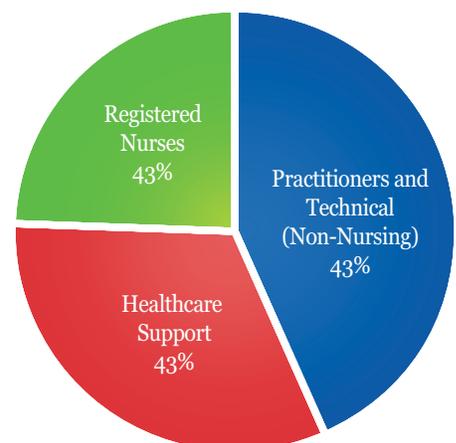
BRAC: The increase of residents in northeast Maryland and in the Fort Meade area will increase the need for health professionals in those areas.

PROJECTED CRITICAL HEALTHCARE WORKFORCE SHORTAGES

The subcommittee assembled a list of high demand allied health professions, based on reports of human resources managers and healthcare professionals involved in hiring across a wide range of healthcare settings, including inpatient, outpatient, and community services.

Fifteen high demand allied health professions were noted. Employment projections for these professions, compared with the number of 2008 Maryland education institution graduates in these professions, indicate ongoing and significant gaps. Shortages are anticipated until at least 2016, indicating that deferral of plans to address such shortages would create major problems.

Graphic: Maryland Healthcare Occupations: 2008



Data Source: Bureau of Labor Statistics, May 2008 OES

Table: In-Demand Allied Health Professions in Maryland: 2008

Profession	Estimated Annual Openings	Graduates	Gap (Negative Numbers Indicate Surpluses)	Educational Requirements
Dental Hygienists	129	96	33	Associate Degree
Medical and Clinical Laboratory Technicians	95	28	67	Associate Degree
Medical and Clinical Laboratory Technologists	136	65	71	Bachelor's Degree
Medical Records & Health Information Technicians	130	314	-184	Associate Degree
Mental Health, and Substance Abuse Counselors	194	187	7	Master's Degree
Occupational Therapist Assistants	21	15	6	Associate Degree
Occupational Therapists	97	94	3	Bachelor's Degree
Physical Therapist Assistants	59	53	6	Associate Degree
Physical Therapists	208	66	142	Bachelor's Degree
Physician Assistants	61	99	-38	Bachelor's Degree
Radiologic Technologists and Technicians	163	229	-66	Associate Degree
Rehabilitation Counselors	171	34	137	Master's Degree
Respiratory Therapists & Technicians	129	121	8	Associate Degree
Speech-Language Pathologists & Audiologists	98	111	-13	Master's Degree
Surgical Technologists	115	48	67	Associate Degree

Data Sources: Maryland Department of Labor, Licensing and Regulation's Occupational Projections for Maryland (2006 to 2016) and Maryland Higher Education Commission Graduation Data

While the shortage of nurses in Maryland - particularly in the hospital setting - is well-documented, other healthcare professions are experiencing shortages, as well. Rehabilitation professionals are noted to be in shortage in out-of-hospital healthcare settings. In addition, the shortage of speech-language pathologists and occupational therapists is anticipated to be significantly greater than reported in health workforce data due to demand for these professionals in educational settings, as well as healthcare settings. This may also be true for mental health counselors.

Some programs appear to have low enrollment and/or low graduation rates. Such programs should be carefully assessed to determine capacity for increasing enrollments and graduation rates. Full enrollment and high graduation rates are critical for maximizing use of resources at a time of significant workforce shortages.

Several professions are expected to experience substantial growth at the assistant levels and technician levels. These professions include the rehabilitation professions (including substance abuse and mental health), physician assistants and dental hygienists.

Table: Vacancy and Turnover for Selected Allied Health Professions: 2007

Profession	Hospital Vacancy Rate	Hospital Turnover Rate
Dental Hygienist	No Data	No Data
Medical & Clinical Laboratory Technician	13.7%	10.3%
Medical & Clinical Laboratory Technologist	9.7%	9.8%
Medical Records Technician	8.7%	12.4%
Mental Health Counselors & Substance Abuse Counselors	No Data	No Data
Occupational Therapist	17.0%	21.0%
Occupational Therapist Assistant	15.0%	14.4%
Physical Therapist	11.9%	11.9%
Physical Therapist Assistant	12.3%	3.8%
Physician Assistant	15.9%	9.7%
Radiation Technologist / Therapist	5.6%	7.3%
Radiographer	11.8%	8.7%
Rehabilitation Counselor	No Data	No Data
Respiratory Therapist	19.9%	7.2%
Speech-Language Pathologist	22.6%	12.6%
Surgical Technologists	11.7%	19.5%

Data Source: Maryland Hospital Association

Note: Professions were identified by the GWIB Allied Health Subcommittee, based on reported difficulty in current hiring.

While substantial shortages are noted in pharmacy and respiratory therapy, recent expansion and/or partnership models have been developed which are anticipated to address some of these shortages. These models include:

- Expansion of enrollments in the pharmacy program at the University of Maryland, Baltimore (UMB).
- Addition of an off-site UMB program in pharmacy at the Shady Grove campus.
- Addition of a pharmacy program at College of Notre Dame, Maryland
- Collaboration of Salisbury University with Montgomery College in respiratory therapy.
- Collaboration of the Community College of Baltimore County/Essex Campus and Towson University to offer respiratory therapy and allied health in a dual enrollment model
- Expansion of capacity for the respiratory therapy program at CCBC

Other healthcare profession expansions and/or partnerships include:

- Addition of an AAS degree program in dental hygiene at CCBC.
- Addition of AS degree program in dental hygiene at Medix School, South.
- Expansion of capacity, and accreditation for the medical laboratory technology program at CCBC.
- The entire mental health program will be offered online at CCBC.
- Development of an Associate-level certificate track in psychosocial rehabilitation for the mental health program at CCBC.

Recommendations

Maryland higher education institutions need clear plans for growth in numbers of graduates at all levels within high demand allied health professions. A key issue will continue to be capacity for growth, including the faculty resources as well as facilities (especially labs), equipment, clinical placements and supervisors/preceptors. Allied health professions faculty, like nursing, are experiencing extreme shortages. This is an education capacity issue that drives a great part of the worker shortages in these disciplines.

Further, students recruited for healthcare education programs need to be well-qualified and prepared, with the appropriate prerequisites, for the rigorous education level demanded in healthcare professions.

The subcommittee proposes the recommendations outlined below.

- 1. DEVELOP PROGRAMS FOR ALLIED HEALTH PROFESSIONS COMPARABLE TO THE MARYLAND HIGHER EDUCATION COMMISSION'S NURSE SUPPORT PROGRAM I AND NURSE SUPPORT PROGRAM II PROGRAMS AVAILABLE TO ADDRESS THE CRITICAL SHORTAGES IN NURSING AND NURSING FACULTY.**
- 2. DEVELOP NEW PROGRAMS AND SUPPORT EXPANSION OF EXISTING ACADEMIC PROGRAMS.**
 - Due to the variety of disciplines represented and the imperative need to assure preparation of health professionals for all regions of the State, creation of a Board is recommended to develop annual priorities in discipline, level of academic program, and format/location of the program as a basis for RFPs for new/expanded program proposals.
 - New programs will require funding PRIOR to enrollment of students — rather than funding after students graduate (as is provided with the current workforce funding — to allow for development of the program and facilities, recruitment of students who have appropriate prerequisites, and hiring of faculty.
 - New programs will require phased-in funding over two–four years, depending upon program length and until full enrollment capacity is reached. Funding may be provided in the following model if the academic program is three years or more in length:
 - Year 1: 100%
 - Year 2: 75%
 - Year 3: 50%
 - Year 4: 25%
 - Programs must show how they will address the need for health professionals in a specific geographic area. If a profession in which program replication in multiple areas of the state is too costly, show how distance learning or other models will be used to support one or more other geographic areas.
 - Programs must address, and increase, the diversity of the students recruited for program enrollment.
 - Existing programs would qualify for funding to substantially expand enrollment and/or to significantly increase the number of graduates. If such programs have been chronically under-enrolled or have had low graduation rates, proposals may emphasize how these factors will be modified. Partnerships with other academic institutions may be utilized to support enrollment in such programs.

3. FUND BUILDING OF INNOVATIVE MODELS OF CLINICAL SUPERVISION/PRECEPTOR-FACULTY CONNECTIONS, PARTICULARLY INCLUDING:

- Incentives for employers with community-based services or small employee numbers to provide clinical supervision.
- Models of shared academic faculty/healthcare employee in ratio of 50-50 or 75-25 with students accompanying faculty in clinical setting.
- Increased use of technology/simulations to prepare students for clinical practice settings and increase range of diverse experiences.

4. DEVELOP FACULTY CAPACITY.

- Scholarship programs for prospective faculty in allied health workforce areas similar to funding available for nursing faculty.
- Annual statewide conference for allied health faculty: to share information regarding use of technology in teaching, address need for ongoing professional development, share teaching strategies, address clinical placement issues.
- Annual conference to recruit potential faculty in allied health disciplines. The conference should provide an introduction to teaching and learning to support those individuals considering teaching, e.g. orientation of the teaching/learning process and use of teaching technology.
- Preceptor/clinical supervisor models - sharing across disciplines - teaching preceptor/clinical supervisors about pedagogy, supporting student learning, using innovative models.

5. DEVELOP RE-ENTRY PROGRAMS TO SUPPORT HEALTH PROFESSIONALS WHO HAVE STOPPED PRACTICING FOR A PERIOD OF TIME AND NEED SUPPORT TO MEET LICENSING AND PROFESSIONAL REQUIREMENTS FOR RE-ENTRY. PROVIDE WAIVER OF LICENSURE REINSTATEMENT FEES FOR PROFESSIONALS WHO COMPLETE A SHORT-TERM PROGRAM TO SUPPORT RE-ENTRY.

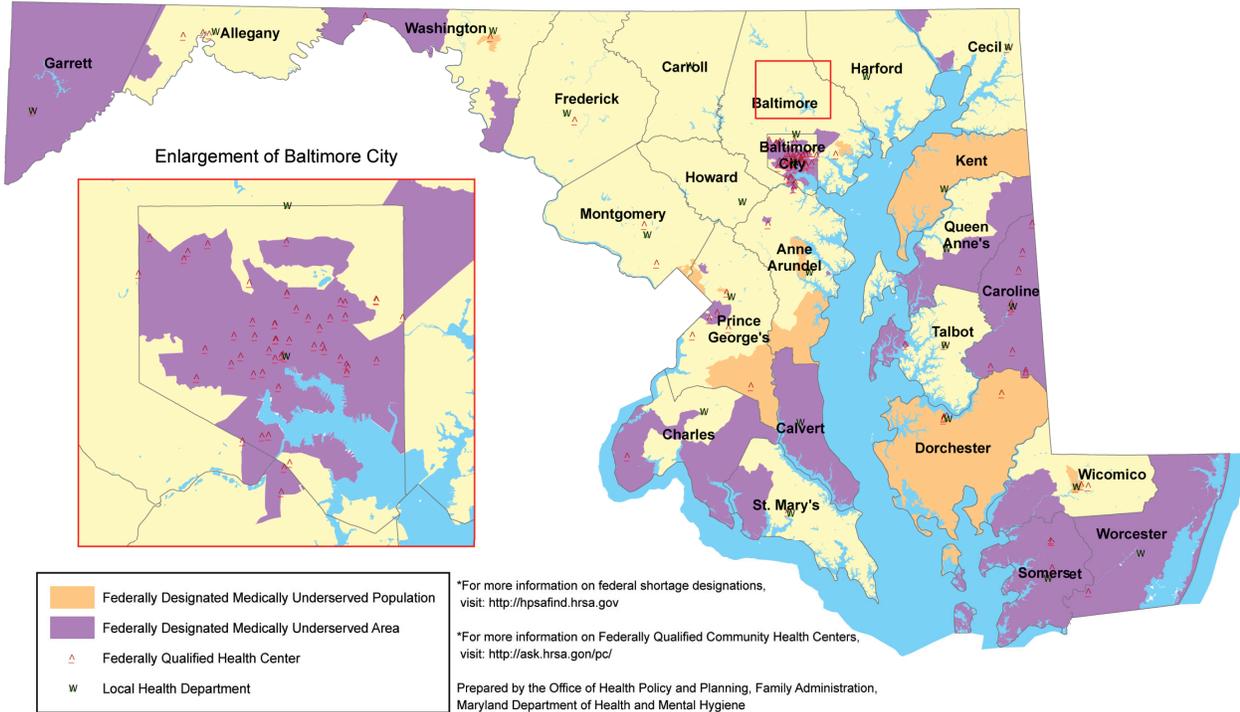
6. SUPPORT KEY RECOMMENDATIONS OF THE MARYLAND STATEWIDE COMMISSION ON THE SHORTAGE IN THE HEALTHCARE WORKFORCE REPORT ON WORKFORCE SHORTAGES IN THE ALLIED HEALTH PROFESSION DISCIPLINES, INCLUDING:

- Creation of an ongoing centralized statewide healthcare commission/task force to coordinate and monitor statewide healthcare workforce issues as they emerge (e.g. prevention, healthcare promotion, management of chronic conditions) and to develop recommendations to address associated workforce needs.
- Creation of a centralized state healthcare workforce information web site or portal for all healthcare resources and programs.
- A statewide initiative to develop faculty for all healthcare workforce areas of study, through funding mechanisms such as faculty scholarships.
- Maryland health regulatory boards adopt reciprocity or acceptable national standards regarding licensing criteria.
- Promote diversity within health careers through educational institutions and support centers for PreK–12 and higher education students, particularly minorities, rural populations, and underserved areas.

Time is not on the side of those responding to allied health professions shortages. It is particularly critical that the State respond quickly in addressing these shortage areas to prevent further gaps between supply and demand. Some of the most critical needs are in professions in which graduate level education is required. Due to the time frame necessary for recruitment and education in these programs, it is particularly critical that the State respond quickly.

Appendix

Graphic: Maryland Medically Underserved Area / Population Designations and Federally Qualified Health Centers, as of April 10, 2008



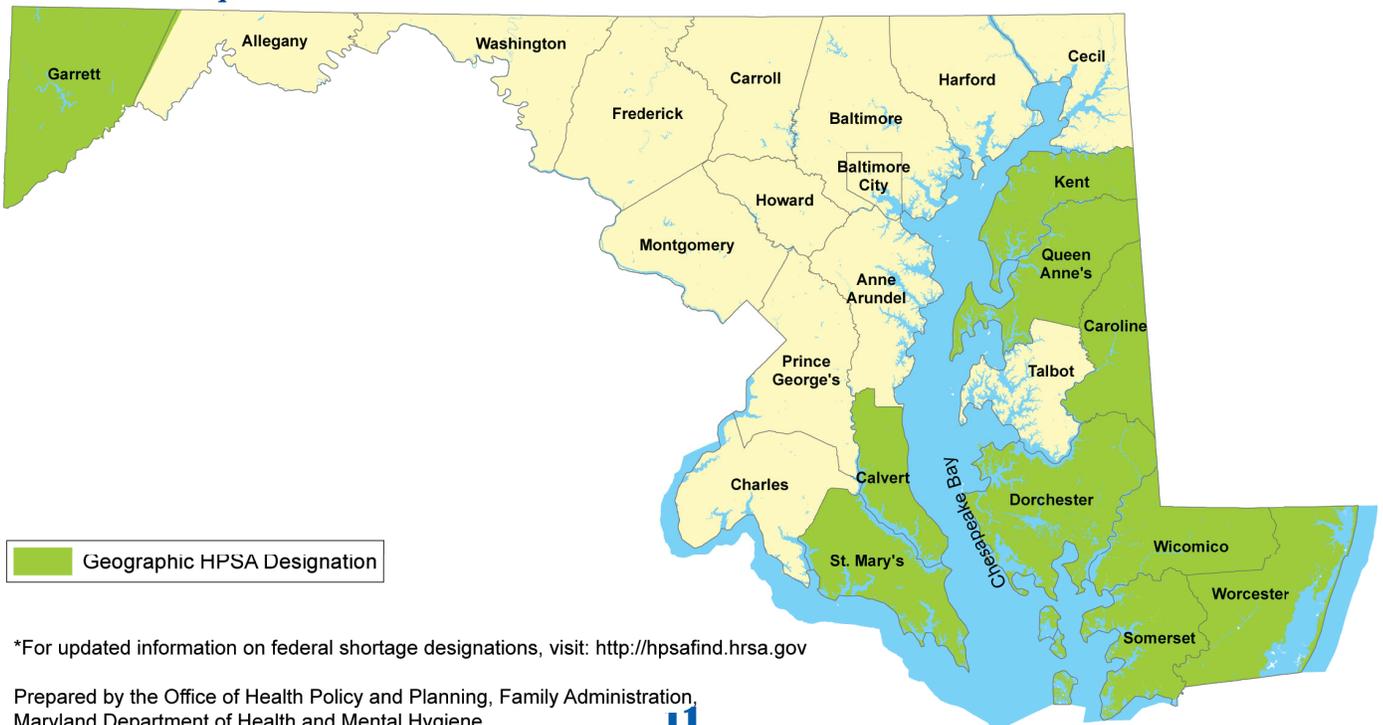
Graphic: Maryland Health Professional Shortage Areas (HPSA) Designations for Primary Care, as of April 2, 2009



Graphic: Maryland Health Professional Shortage Areas (HPSA) Designations for Dental Care, as of April 2, 2009



Graphic: Maryland Health Professional Shortage Areas (HPSA) Designations for Mental Health, as of April 2, 2009



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The Governor's Workforce Investment Board is the Governor's chief policy-making body for workforce development.

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