A VISION FOR
HEALTH SCIENCES
in
SOUTHERN NEW JERSEY
A VISION FOR THE COLLEGE OF HEALTH SCIENCES

The New Jersey Medical and Health Science Education Restructuring Act promises to transform education and health care in New Jersey.

*Health Sciences in Southern New Jersey* introduces the vision for the Camden-based College of Health Sciences and shows how it and Cooper Medical School of Rowan University (CMSRU) will meet the educational and health care needs of southern New Jersey residents as:

- New Jersey faces a **20- to 30-percent retirement turnover** and a critical shortfall of trained health care workers in many areas,
- the State's aging population is projected to overwhelm health care and other age-related systems, and
- health care employment in the eight-county South Jersey region is projected to experience **growth of more than 17 percent** from 2008 through 2018—adding nearly **50,000 new positions** in the health care and social assistance and education and health services employment sectors.

Rowan started developing this concept—it is not a master plan—early in the State's discussions about restructuring, and it is meant more than anything to be a *conversation starter*. The document also provides a vision of an ideal interdisciplinary College in which programs become stronger through close proximity, extensive collaborations and shared space.

The College will respond to the call for select in-demand disciplines in the areas of medicine, nursing, public health and related health professions. Collaboration with Cooper University Health Care, Coriell Institute for Medical Research, the soon-to-open Cooper Cancer Institute and other important institutions on both sides of the Delaware River will enhance its curricula.

We are convinced the return on investment will be well worth the support this college requires. The College of Health Sciences will attract and keep home many of the New Jersey students who leave our state to become health care professionals. The College will draw new businesses, contribute to the community and enrich southern New Jersey. And it will be an *investment in the present that will reap benefits long in the future*—for education, for health care and for the economy of our region and beyond.

The State of New Jersey exhibited great vision in the Restructuring Act, and Rowan and Rutgers-Camden are determined to respond to the opportunity to make the vision a reality that will enhance lives, communities and economies.
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HEALTH SERVICES & NEW JERSEY

The majority of the Bureau of Labor Statistics’ fastest-growing occupations at the national and state levels are within the health sciences sectors. Combine this with out-migration and the Baby Boomer generation cresting and it becomes apparent that the current higher and health sciences education systems cannot meet the needs of the State’s citizenry—particularly in resource-light southern New Jersey. The region must adapt to meet the needs of its citizens.

FACTORS AFFECTING SOUTHERN NEW JERSEY

<table>
<thead>
<tr>
<th>POPULATION</th>
<th>INDUSTRY</th>
<th>EDUCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Jersey’s <em>aging population</em> is projected to overwhelm health care and other age-relevant systems as they currently exist.</td>
<td>New Jersey is facing a 20-30% retirement turnover of public health care workers.</td>
<td>New Jersey suffers from the nation’s worst out-migration of college-bound high school graduates.</td>
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<tr>
<td>The eight counties of southern New Jersey exhibit <em>higher poverty rates and other less desirable characteristics</em> as compared to North Jersey.</td>
<td>New Jersey faces a critical <em>shortfall of trained health care workers</em> to meet the needs of its citizens.</td>
<td>Access to education and the types of college/professional degrees that lead to in-demand careers is significantly less in southern New Jersey.</td>
</tr>
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NEW JERSEY IS LAGGING BEHIND

New Jersey is ranked 30th among its peers in terms of the performance of its health system, as evaluated by the private foundation *The Commonwealth Fund*. Nearby Delaware, Pennsylvania and Maryland rank 14th, 15th and 17th, respectively. More than 30,000 New Jersey residents seek specialty care at academic medical centers each year in neighboring Pennsylvania alone. Additionally, New Jersey is losing out financially in this area—considering that medical schools alone generate approximately $3 in area economic activity for every $1 spent.

Improving New Jersey’s performance percentages to the level of the best-performing states (e.g., Vermont, Hawaii and Iowa) could result in widespread health care improvements for its citizens according to *The Commonwealth Fund’s* findings and could include:

- **250,000+** more adults (age 50+) would have *preventative screenings* such as mammograms, colonoscopies, flu shots, etc.
- **140,000+** more adults (age 18+) with diabetes would have recommended screenings (e.g., eye exams, lab tests) to *ease disease complications*.
- **18,000+** more children would be up-to-date with recommended *routine vaccinations*.
- More than **$260 million** would be saved from *reductions in preventable hospitalizations*.
- More than **$130 million** could be recovered from *reduced preventable re-admissions*.
- **2,400 fewer** people would die prematurely from *treatable or preventable causes*. 
SUSTAINED EMPLOYMENT GROWTH

New Jersey’s health care sector added **154,800 new jobs between 1990 and 2010**—roughly three times greater than that of all other industries combined. In fact, health care is the only industry that has added jobs during this timespan—increasing its share of the local job market from 7.5 percent in 1990 to 11.3 percent in 2010.

This trend is predicted to continue through the coming years. The U.S. Census Bureau projects health care employment in New Jersey will grow more than **17 percent through 2018** in the Education and Health Services and the Health Care and Social Assistance sectors. Projected job growth within the eight counties of southern New Jersey for both of these employment sectors is detailed in the two charts below.

**Projected new positions in New Jersey**

**EDUCATION & HEALTH SERVICES**

*by county: 2008-2018*

<table>
<thead>
<tr>
<th>County</th>
<th>2008-2010 Positions</th>
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<tbody>
<tr>
<td>Atlantic</td>
<td>3,450</td>
</tr>
<tr>
<td>Burlington</td>
<td>5,350</td>
</tr>
<tr>
<td>Camden</td>
<td>5,800</td>
</tr>
<tr>
<td>Cape May</td>
<td>350</td>
</tr>
<tr>
<td>Cumberland</td>
<td>1,300</td>
</tr>
<tr>
<td>Gloucester</td>
<td>1,300</td>
</tr>
<tr>
<td>Ocean</td>
<td>250</td>
</tr>
<tr>
<td>Salem</td>
<td>250</td>
</tr>
</tbody>
</table>

**Total new positions in Health Care & Social Assistance:** **26,050**

**Projected new positions in New Jersey**

**HEALTH CARE & SOCIAL ASSISTANCE**

*by county: 2008-2018*

<table>
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</tr>
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<td>Salem</td>
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</table>

**Total new positions in Education & Health Services:** **23,750**
New Jersey’s Department of Labor and Workforce Development has highlighted occupations within the health sciences as being continued sources of job growth in the near future.

Each of the occupations featured in the graphs on this page would be among those supported by the proposed schools and programs in the College of Health Sciences. Featured here are the top five health sciences occupations in New Jersey in terms of anticipated percentage growth and anticipated total employment growth (new jobs created).

Census and workforce projections regarding demand for health care professionals will expand even further. As one example, the U.S. Department of Health and Human Services’ Healthy People 2020 initiative aims to “increase the proportion of 4-year colleges and universities that offer public health or related majors and/or minors.” This and related efforts will serve to amplify the demand for highly educated, well-trained professionals in the health sciences in the near future.
A NEW VISION
FOR SOUTHERN NEW JERSEY

At its core, a proposed College of Health Sciences (CHS) promises to offer students quality educational opportunities for in-demand careers, focused on the areas of Medicine, Nursing and Public Health, as well as several Health Professions disciplines. CHS is expected to effectively address the employment growth projections cited in this plan. The College's curricula will be characterized by a hands-on, immersive learning experience.

Rowan University, its Cooper Medical School of Rowan University, Cooper University Health Care and Rutgers-Camden form a network of educators, researchers, practitioners and pacesetters. They will be the foundation of the College of Health Sciences. Rowan's increased focus on health care-based curricula is well aligned with the current degree offerings of the institutions—as well as with estimates of population growth and the subsequent impact on the job market. Rowan's partnership with Cooper University Health Care is a strong step toward offering a wider array of degree programs to meet the needs of the population. Opening new schools in the health sciences alongside Cooper Medical School of Rowan University under a united College of Health Sciences will greatly strengthen the education-based enterprise throughout southern New Jersey.

This document features projected estimated highlights from each school in the College of Health Sciences.

Rowan University researched the individual requirements necessary to create and sustain high-quality programs. The major accrediting bodies of each of the schools determined, for the most part, the guidelines for the successful implementation of quality programs in the health sciences. The elements evaluated in Rowan's assessment include:

- **Number and type of faculty** (i.e., full-time tenured faculty)
- **Qualifications of faculty** (i.e., area/discipline of study, level of experience)
- **Curricular goals** for learning outcomes
- **Anticipated/ideal class sizes** for effective instruction

Contact Rowan University's Office of the President, officeofthepresident@rowan.edu, for assumptions pertaining to this plan. Note that all figures for Cooper Medical School of Rowan University (CMSRU) are based upon its current budget, class sizes prescribed by its accrediting body (Liaison Committee on Medical Education) while CMSRU works toward full accreditation, as well as other related information pertinent to this assessment. Estimated projections pertaining to proposed schools of Health Professions, Nursing and Public Health with respect to tuition, total head count and more are based upon a review of the standards for accreditation as well as existing programs at area competitive and leading institutions.
Graduates of health professions programs provide medical support services that have emerged to become a regular part of health care in the 21st century. Employment in the area of health care support is expected to grow the most rapidly—with an impressive **34.5 percent surge in the coming years**. The U.S. Bureau of Labor Statistics’ *Employment Projections: 2010-2020* forecasts that the Health Care and Social Assistance sector will gain the most jobs (**5.6 million**). The Bureau simultaneously projects a **shortage of up to 2.5 million** health professions-educated workers by 2020 with respect to open positions in the field.

The School of Health Professions’ programs could feature graduate and undergraduate degrees as well as certificate programs for health care professionals in the following fields:

<table>
<thead>
<tr>
<th>Athletic Training</th>
<th>Health Care Administration</th>
<th>Radiation Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audiology; Speech-Language Pathology</td>
<td>Medical and Clinical Lab Technology</td>
<td>Radiography</td>
</tr>
<tr>
<td>Cardiovascular Technology</td>
<td>Nuclear Medicine</td>
<td>Rehabilitation Aid Program</td>
</tr>
<tr>
<td>Dental Hygiene</td>
<td>Occupational Therapy</td>
<td>Respiratory Therapy</td>
</tr>
<tr>
<td>Emergency Medical Technology</td>
<td>Physical Therapy</td>
<td></td>
</tr>
<tr>
<td>Health Information Technology</td>
<td>Physician Assistant</td>
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</tr>
</tbody>
</table>

Should this School be established, an initial aggregate class of over 350 students is anticipated, and enrollment is expected to **steadily grow to more than 1,200 full time equivalent (FTE) students by Year 5**, based on a review of existing programs at other colleges and universities. The fifth year of operation at the School of Health Professions is projected to result in more than 300 new degree-holders **earning an average of $83,800 per year**, according to the U.S. Bureau of Labor Statistics. A **$151 million cumulative benefit to the region** also is projected by the fifth year of operation as a result of the estimated increase in wages of graduates, college expenditures and expenditures by new students in the region.

Despite Rowan having identified seven member institutions of the *Association of Schools of Allied Health Sciences* in the area, there is sufficient anticipated employment growth to sustain a School of Health Professions within the College of Health Sciences. There is also great opportunity for collaboration among the southern New Jersey’s community colleges in these health sciences disciplines.
ENROLLMENT PROJECTIONS: SCHOOL OF HEALTH PROFESSIONS

![Graph showing enrollment projections](image)

ESTIMATED BENEFIT FOR SOUTHERN NEW JERSEY: SCHOOL OF HEALTH PROFESSIONS

![Graph showing estimated benefits](image)

- Estimated Increase in Wages of Graduates (2% annual increases)
- Estimated College Expenditures in the Region
- Estimated Expenditures by Students in the Region (2% annual increases)

**$52,400,000**
Cooper Medical School of Rowan University

Cooper Medical School of Rowan University (CMSRU) has set upon a course to distinguish itself as a leader in medical education—with a programmatic emphasis on patient-centered care, patient safety, innovative health care delivery systems, research and preventive health programs that meet the needs and challenges of patient care in the 21st Century. This mission and vision are the beacons that guide Rowan University’s fledgling medical school, in partnership with Cooper University Health Care. CMSRU is located adjacent to Cooper University Hospital in Camden, N.J., a city where basic needs such as housing, food, health care and education go unmet for many residents. CMSRU is educating new physicians who will practice regionally, as well as through the creation of new programs where students and faculty will provide care, resources and services to the community.

CMSRU’s medical educational program provides each student with a solid foundation in the science of medicine by offering an early and continuous clinical experience. The CMSRU curriculum emphasizes small group and “self-directed” learning. Early patient contact (during the third week of classes), a student-directed ambulatory clinic and the “Scholar’s Workshop” enhance learning by exposing students to the many facets of providing medical care and preparing them for the rapidly changing world of health care.

An inaugural class of 50 students has enrolled. Each subsequent class is expected to grow at a rate of ten additional new students per year, as mandated by the medical school’s accrediting body. The fifth year of operation at CMSRU is projected to result in 300 enrolled students. M.D. degree-holders are projected to earn $165,360 per year according to the U.S. Bureau of Labor Statistics.

The region is a hub for medical education, with 13 percent of the nation’s total medical school enrollment happening right here. Further, southern New Jersey forfeits $2 billion annually in terms of economic activity to medical centers across the river in Philadelphia. CMSRU shall endeavor to keep a greater share of New Jersey’s medical students and their consumer dollars in-state and stem the outmigration of qualified applicants.
ENROLLMENT PROJECTIONS: CMSRU

![Graph showing enrollment projections for CMSRU over five years.](image)

ESTIMATED BENEFIT FOR SOUTHERN NEW JERSEY: CMSRU

![Bar chart showing estimated benefits for Southern New Jersey CMSRU, with a total of $50,100,000.](image)
The nursing profession is in high demand. Advances in technology, the graying population and recent health care reform will spur continued growth. The State of New Jersey Department of Workforce Development employment projections for 2008 to 2018 highlight 12.8 percent growth for registered nurses, 14.5 percent for licensed practical nurses and 6.6 percent for nursing instructors—more than 12,000 new positions being created within this relatively short period of time.

The College of Health Sciences’ School of Nursing will prepare students to be career-ready for a variety of specialties and settings with knowledge, clinical experience, research and professional skills. The School will build upon Rowan University’s successful R.N.-to-B.S.N. nursing degree completion program that area community colleges already feed into as they graduate successful candidates of their respective R.N. and L.P.N.-to-R.N. programs.

The School of Nursing could offer the following degrees:

<table>
<thead>
<tr>
<th>D.N.</th>
<th>B.S.N.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor of Education (Ed.D.) in Nursing Education</td>
<td>Online R.N.-to-B.S.N.</td>
</tr>
<tr>
<td>M.S.N.</td>
<td>Face-to-face and hybrid hospital-based R.N.-to-B.S.N.</td>
</tr>
<tr>
<td>L.P.N.-to-B.S.N.</td>
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</tbody>
</table>

Should this School be established, a class of 75 students (35 new as well as 40 continuing students currently enrolled in Rowan’s program) is projected—enlarging to more than 200 full-time equivalent (FTE) students enrolled by Year 5, based on a review of existing programs at other colleges and universities. By this time, 400 new degree-holders are anticipated, earning an average of $76,740 per year, according to the U.S. Bureau of Labor Statistics. A $27.4 million cumulative benefit to the region also is projected.

Thirty-three nursing schools were identified in the metropolitan area through the American Association of Colleges of Nursing. Despite what might appear as a saturated market, Rowan’s steadily growing R.N.-to-B.S.N. program’s success—with nearly 300 students currently enrolled—speaks to the sustained increase in demand for these health care professionals now and in the coming years.
ENROLLMENT PROJECTIONS: SCHOOL OF NURSING

Total Enrollment (FTE)

Year 1: 75
Year 2: 100
Year 3: 140
Year 4: 182
Year 5: 208

Estimated Economic Benefits for Southern New Jersey School of Nursing

- Estimated Increase in Wages of Graduates
- Estimated College Expenditures in the Region
- Estimated Expenditures by Students in the Region

ESTIMATED BENEFIT FOR SOUTHERN NEW JERSEY: SCHOOL OF NURSING

$7,800,000

Year 1: $2.0
Year 2: $4.0
Year 3: $6.0
Year 4: $8.0
Year 5: $10.0

Years of Operation

Total Enrollment (FTE)
Public health supports and differs from clinical health (i.e., medical practitioners). It places emphasis on prevention through education to improve the overall health and well-being of communities. Graduates of the College of Health Science’s School of Public Health program will be equipped with the know-how to support health promotions and healthy lifestyles at the community level. The *wide variety of career choices* for public health graduates includes those in epidemiology and biostatistics, environmental health, health administration and community health, health education and also health policy and management.

*The School of Public Health will offer the following degrees:*

<table>
<thead>
<tr>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master of Public Health (M.P.H.)</td>
</tr>
<tr>
<td>Master of Health Care Administration (M.H.C.A.)</td>
</tr>
<tr>
<td>Doctor of Public Health (D.P.H.)</td>
</tr>
<tr>
<td>Ph.D. in a Public Health subspecialty</td>
</tr>
</tbody>
</table>

Should this School be established, an inaugural class of 30 students is expected—growing to 75 full-time equivalent (FTE) students enrolled each year as of Year 5. The fifth year at the School of Public Health is projected to result in just over 200 full-time equivalent (FTE) students, based on a review of existing programs at other colleges and universities. By the fifth year of operation, the School of Public Health also is expected to have graduated 44 new degree-holders and have a $16.7 million cumulative benefit to the region.

In New Jersey, public health programs only are offered by institutions at the northern end of the state. Five universities offer public health programs in Pennsylvania: Drexel University, Temple University, Thomas Jefferson University, University of Pennsylvania and West Chester University, all just across the river from southern New Jersey. There is clear opportunity here to stem the outmigration of New Jersey’s qualified students by establishing a School of Public Health as part of the College of Health Sciences.
ENROLLMENT PROJECTIONS: SCHOOL OF PUBLIC HEALTH

<table>
<thead>
<tr>
<th>Years of Operation</th>
<th>Total Enrollment (FTE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>30</td>
</tr>
<tr>
<td>Year 2</td>
<td>65</td>
</tr>
<tr>
<td>Year 3</td>
<td>110</td>
</tr>
<tr>
<td>Year 4</td>
<td>155</td>
</tr>
<tr>
<td>Year 5</td>
<td>201</td>
</tr>
</tbody>
</table>

ESTIMATED BENEFIT FOR SOUTHERN NEW JERSEY: SCHOOL OF PUBLIC HEALTH

$5,500,000

- Estimated Increase in Wages of Graduates
- Estimated College Expenditures in the Region
- Estimated Expenditures by Students in the Region
IN THE CITY OF CAMDEN

Images breathe life into ideas. Presented here is a conceptual vision of the physical campus of the College of Health Sciences (CHS). It is based upon research that focused exclusively on the academic underpinnings of each program. The campus aspires to be an inviting, easily accessible and environmentally sustainable resident of Camden, N.J.

Rowan University, Rutgers-Camden, and Cooper Medical School of Rowan University currently do not have the physical capacity or appropriately equipped facilities to house CHS in Camden. A study is warranted to determine the final physical configuration and total estimated costs associated with acquiring property and constructing adequate facilities to accommodate the College. That aside, the research conducted by Rowan University to assess, evaluate and model each of the academic programs housed in CHS has revealed common attributes pertaining to the requisite learning spaces for each program. This presents the opportunity to share a significant number of resources, thus helping to reduce non-academic/administrative startup and operating costs without compromising superior academic quality.

CHS will comprise a handful of close-knit schools—each offering distinctly different graduate and professional degrees in the health sciences. There is great potential with respect to interdisciplinary research activities among the schools. There also will be a good deal of curricular and/or facilities overlap at various points during a student’s course of study, which presents opportunity for shared resources and realized cost savings to a modest degree.

The CHS campus in the City of Camden is anticipated to consist of the following:

- Shared space for **wet and dry laboratories**
- Shared space for **classrooms, meeting rooms and conference spaces**
- A dual-purpose building with **upper-floor student housing** and **ground-level retail space**
- A physical plant to support the campus
- A parking structure to alleviate street congestion

The CHS campus could grow to comprise two primary building structures: one slated for classroom, meeting and lecture spaces and the other slated for wet/dry lab spaces. Adjacent to the primary academic structures could be a dual-purpose building with residences and retail space. Supporting these and the adjacent Cooper Medical School of Rowan University also could be a facilities plant and a dedicated parking structure.
STREET-LEVEL VIEW FROM BENSON STREET
LOOKING WEST TOWARD S. BROADWAY WITH
SKYWAYS OVERHEAD AND COOPER MEDICAL
SCHOOL OF HOWAN UNIVERSITY IN THE DISTANCE.