

**Academic Program Development in Health Science
Office of the Provost and Executive Vice President
Mississippi State University**

(Submitted: 09/21/2020 by David Buys and Jamie Dyer)

I. Mission and Charge Statement

Mississippi State University is a leading institution in research related to health, and there currently exists a unique window of opportunity to leverage this research capacity into innovative transdisciplinary academic programs. At the direction of Vice Presidents David Shaw, Julie Jordan, and Reuben Moore, this task force was charged with exploring how MSU can best fulfill its land-grant mission of teaching, research, and service through the development and implementation of comprehensive transdisciplinary programs in the field of health.

The task force was comprised of the following individuals representing a cross section of expertise related to health science and academic programs at MSU: David Buys (Chair); Devon Brenner; Art Cosby; Dan Gadke; Michael Newman; M.C. Reese; Holli Seitz; LaShan Simpson; David Smith; Leslie Strawderman; and Carlton Young. Additionally, Jamie Dyer, Professor of Geosciences and administrative intern in the Office of the Provost and Executive Vice President, participated in and supported the task force from the Provost's office.

The primary objective of the task force was to outline the requirements, potential structure(s), and known/expected obstacles associated with the development of programs focused on health. Driven by the expertise of the task force, and under the guidance of the Office of the Provost, the general objectives and goals included the following:

- A description of potential academic programs focused on health that aligns with the strengths of MSU faculty, resources, and research foci.
- Potential curriculum structure and content based on existing and potential MSU course offerings.
- An outline of potential program structures (e.g., certificate, degree, etc.) and their individual advantages/disadvantages.
- An overview of existing and anticipated obstacles in the development and/or success of a program in terms of administrative, economic, political, or other factors.

II. Methodology

The team engaged the assistance of the Stennis Institute of Government and Community Development (SIG) to aid in managing the group process. The SIG team utilized the Strategic Doing process, which "teaches people how to form collaborations quickly, move them toward measurable outcomes, and make adjustments along the way."¹ SIG staff led the Task Force through eight sessions from June 1-July 31 with weekly out-of-meeting assignments designed to maximize the time together. The sessions were interactive and group-based, and SIG staff tracked progress, compiled meeting notes, and shared updates and notes with the team. They also met with Jamie Dyer and David Buys weekly outside of the full task force meeting to debrief about the previous meeting and prepare for the next discussion.

¹ <https://strategicdoing.net/intro/>

III. Program Recommendations

Summaries of the task force recommendations are provided below in order of preference and/or time to implementation, as defined by the task force. Additionally, the associated justification for the recommendations are provided to further define the expected impact and potential structure of associated academic programs.

1. *Certificate programs*

The development of a certificate program would allow students in any department to take courses from a pre-determined list and allow them to specialize in a health science field. Faculty with expertise in health science could develop and teach courses that are tied to specific topics related to existing (and planned) health science research efforts. The certificate would culminate in a capstone course with sections taught by teams of faculty from different disciplines. This course would allow for industry-sponsored projects and would also count towards capstone credit in all health science-related majors.

Although an exhaustive list of health science certificate concentrations was not developed by the task force, examples that could leverage existing MSU assets and expertise are as follows:

- Health and Wellness
 - o Capitalize on existing research and outreach projects focused on health, healthy eating, and school-based wellness and gardening.
- Rural Minority Health Promotion
 - o Capitalize on existing programs and research around rural and rural minority health. Partners could include existing programs such as the Rural Scholars Program, pre-med programs, health promotion program in FSNHP, SSRC, Carl Small Town Center, etc.
- Clinical Training
 - o Enhance existing training programs by exposing more students and programs to the existing clinical opportunities/assets currently available on campus.
- Healthcare Risk Management
 - o Combining the expertise of faculty from the College of Business, Political Science and Public Administration and capitalizing on relationships with health care entities in Meridian, MSU Meridian has the potential to develop much-needed post-graduate health care risk management training programs.

2. *Graduate programs*

A graduate Health Science program would offer professional degrees beyond the undergraduate level with concentrations in Health Science. The overall objective of graduate programs in Health Science would be focused on health and health outcome to fill the need for additional researchers, in addition to service learning. The task force recognized existing expertise at MSU that could be used to develop programs based on niche areas of need, including (but not limited to):

- Food Science, Nutrition, and Health Promotion; Genetic Counseling (College of Agriculture and Life Sciences)
- Healthcare Administration; Health Informatics; Healthcare Management (College of Business)
- Health Science and Health Education (College of Education)
- Health Psychology (Department of Psychology, College of A&S)
- Health Policy Management (Department of Political Science, College of A&S)

- Population Medicine (College of Veterinary Medicine)

3. *Undergraduate programs*

The Health Science task force identified the need and importance of developing undergraduate programs focused on general training along with a concentration in a particular health science topic. Of top priority would be developing transdisciplinary programs that leverage and combine existing curriculum, allowing students to customize their programs of study through coursework from various departments and colleges. Although undergraduate programs could be developed in a multitude of areas where MSU currently has expertise (see the list provided under *Certificate Programs* for examples), all programs could share a base set of requirements to provide a foundation for all Health Science graduates to build on as they branch out into particular concentration areas. Additionally, undergraduate degree programs could be a vital recruitment tool to connect Mississippi high school students with various Health Science opportunities.

4. *Rural health outreach*

Recommendations were made to develop community-based outreach programs aimed at promoting rural health promotion and health care that will improve lives throughout Mississippi. These programs could capitalize on collaborations and experience with existing programs internal and external to MSU (i.e., CVM and UMMC, respectively) to develop and enhance opportunities bridging research, outreach, and teaching. The development of cross-disciplinary Extension (and general outreach) programs would provide learning opportunities for students in the areas of leadership, systems thinking, and health sciences at both the undergraduate and graduate level, while also providing an important service to the community. Potential programs could follow a similar model as other service-learning programs at MSU, including (but not limited to) the Psychology Clinic, Sensory Lab, e-Center, Idea Shop, Partnership School, and others.

5. *Clinical-based learning experiences*

Develop, foster, and/or utilize clinical labs to allow health science students from various departments to practice in a clinical setting. Utilizing a transdisciplinary approach would provide opportunities in areas such as clinical psychology, counseling, nutrition, health promotion, medical technology, and social work (among others) to share resources, promote interprofessional education, and eventually grow additional clinical-based academic programs. Such programs could utilize existing MSU clinical resources and expertise, with potential development opportunities in audiology, nursing, pharmacy, etc. Additionally, pre-med educational programs could prepare students for alternative careers outside of attending traditional medical school.

6. *Health Science-focused unit (school, institute, center, or college)*

Develop an administrative unit (school, institute, center, or college) comprising or incorporating Health Science education, research, and outreach initiatives at MSU to foster transdisciplinary programs and collaboration. These units could capitalize on existing strengths to create unified opportunities for student engaged, community-based learning focused on health, and could offer master's degrees in programs such as epidemiology, public health, healthcare policy, healthcare leadership, etc. Faculty from across campus could be officially associated with the administrative unit but remain in their existing department. They would be granted affiliation with the unit based on their expertise and research and it would

contribute to Promotion and Tenure. Faculty and administrative cooperation will allow for greater opportunities in building strong health science programs.

Ideas provided by the task force include:

- School of Public Health, Health Science, or Health and Human Sciences.
 - o Initial opportunities could be to create a robust Academic Public Health Program or Institute for Vibrant Rural Communities.
 - o Beyond academics, the unit could aid in identifying funding opportunities, grant writing, and research support for collaborative Health Science services.
- Center for Rural Health and Human Value.
 - o Centralized unit to foster and support education, research, and outreach/advocacy efforts aimed at addressing rural health needs and allowing for innovative approaches to examining and addressing ethical, social justice, and racial issues within the state of Mississippi.

IV. Potential Barriers to Success

The task force identified a common set of barriers and obstacles associated with Health Science program development. These obstacles include:

- Defining credit/ownership.
 - o Where will the program be housed? Who will oversee administrative tasks associated with the program (i.e., application and approval processes)?
 - o How will resources be allocated given faculty involvement across multiple academic units?
- Funding and resource allocation.
 - o What will be the funding stream for the programs, and how will funds be collected/allocated among academic units?
 - o Who will provide the initial resources for program development?
 - o If required, who will provide the physical space to house the program?
 - o For clinical-based learning experiences, how will clinical space be allocated and/or provided?
- Faculty recruitment and recognition.
 - o How will faculty involvement in potential transdisciplinary programs be recognized for promotion and/or tenure?
 - o How will faculty be recruited into potential programs, either as new hires or as associates from existing academic units across campus?
 - o Faculty implications associated with teaching courses listed in the certificate may be an issue, especially if there are limitations to class size and teaching resources.
- Defining niche program focus areas based on MSU expertise.
 - o What existing courses could be used to develop academic programs in Health Science? What courses could be developed with existing faculty expertise and availability?
 - o As graduate programs in Health Science are already in place at other peer and peer-plus institutions, the task force recognized that competition with other universities could be an issue.
- Identifying and developing external partnerships.
 - o How can industry, government, and academic partners be recruited and utilized in Health Science program development?

- How can current and future graduates be connected with external partners for internships, capstone projects, and job placement?

V. Paths Forward

Although each potential Health Science program recommendation has unique characteristics that warrant different developmental approaches, the task force identified several shared opportunities with varying priorities and times to completion. In this context, the time frames were defined by the task force as short term (less than one year), medium term (one to two years), and long term (greater than two years):

- Generation of a list of available health science-related courses and programs across campus. [Short term]
 - Look for courses that could potentially be cross-listed to promote transdisciplinary studies.
 - Take note of course prerequisites as well as core and elective requirements.
- Conduct interviews with students, faculty, and external stakeholders to gauge interest and provide direction in potential Health Science programs. [Short term]
 - Information could be used to identify one or two certificate programs to pilot.
- Discussion with administrators at the dean and department head level regarding program ownership, resources, and faculty. [Short term]
- Compile a list of Health Science graduate programs (including program descriptions) from peer and peer-plus institutions would help define niche areas where MSU could stand out. [Short term]
- Identification of potential employers and/or accrediting bodies for health science disciplines. [Short term]
- Identification and description of Health Science programs external to MSU, focusing on peer and peer-plus institutions. [Short term]
 - Recognize potential niche areas where MSU has existing expertise and experience beyond what is available at other peer or peer-plus institutions.
- Conduct a job market analysis to define need and demand for potential graduates across Mississippi, as well as to identify potential external partnerships. [Medium term]
 - Necessary to define state-wide needs in health science to maximize opportunities for graduates.
- Identification of an administrator (potentially at the dean or department head level) that could be charged with development of a curriculum proposal that bridges disciplines and leverages as many existing courses and programs as possible. [Medium term]

In addition to shared opportunities, the task force identified unique paths forward for recommendations beyond traditional academic program development. These include:

- Rural health outreach
 - List all community-engaged learning courses, services, and programs at MSU and define the rural health component of each. [Short term]
 - Develop courses that focus on rural health and/or public health. [Medium term]
 - Establish a Rural Health Working Group. [Medium term]
 - Develop and support entrepreneurship opportunities related to addressing public health needs in Mississippi by connecting students and the MSU e-Center to public health opportunities in the state. [Long term]
- Clinical-based learning experiences

- Identify partners, programs, courses, and clinical spaces that could be utilized for clinical program development at MSU. [Short term]
 - Host an interprofessional simulation / training event for students to showcase clinical-based learning experiences. [Medium term]
 - Establish a standing committee of representatives from clinical-training programs at MSU. [Medium term]
 - Schedule meetings and/or tours of clinical facilities with industry/service organizations, faculty, and administrators to showcase existing resources and discuss opportunities for health-science related clinical/field experiences. [Long term]
- Health Science focused unit (school, institute, center, or college)
 - Identify faculty, departments, and academic programs with a health science focus and begin to consider affiliates and departments needed for a college or school. [Short term]
 - Identify faculty with health-sciences related funding and find ways to combine forces and/or conduct focus groups about administrative structures that they would find supportive and/or create a working group or “lab” they can affiliate with to start. [Medium term]
 - Establish a working group of internal stakeholders and an external advisory council charged with implementing the vision for the future. The working group could be charged with the following: [Long term]
 - Consider opportunities created by new leadership in colleges.
 - Engage political partners at the state level.
 - Open a dialogue with administrators regarding the benefits and drawbacks to the establishment of a new administrative unit.
 - Conduct cost-benefit analysis.

Appendix A: Final Report - Building a Strategic Roadmap for a Health Science Ecosystem

- Document generated by the Stennis Institute of Government outlining the Strategic Doing approach used in the task force discussion, the task force discussion, as well as the recommendations and associated justification for academic program development in Health Science.