UND SMHS Strategic Plan Individual Unit Report for 2020
GOAL 1 for EDUCATION AND FACULTY AFFAIRS

Mission of Education and Faculty Affairs: *Education and Faculty Affairs sustains a vibrant, inclusive and dynamic environment that enables learners and educators to achieve academic and professional excellence.*

Education and Faculty Affairs and its units provide resources, services and support for academic units as each carries out its strategic initiatives in alignment with UND SMHS Strategic Goals and the OneUND Strategic Plan.

Units Reporting to Associate Dean for Education and Faculty Affairs: Education Resources; Library Resources; Information Resources; Simulation Center; Interprofessional Education; Medical Accreditation

LEARNING

One UND Strategic Plan Goal 1: *Provide a strong undergraduate liberal arts foundation*

UND SMHS Strategic Plan Goal 1: *SMHS Units that offer educational programs will expand their curricula to include learning outcomes that align with UND's Essential Studies goals.*

- *Critical Inquiry and Analysis*
- *Quantitative Reasoning*
- *Written Communication*
- *Oral Communication*
- *Information Literacy*
- *Intercultural Knowledge and Skills*

1. Describe if/how your unit has addressed this goal.

EDUCATION RESOURCES/MEDICAL EDUCATION

1. Small Group Leadership Curriculum: Oral Communication
    a. Small group learning and leadership is a long-term goal of the medical curriculum.
    b. We built an assessment tool for small group leadership
    c. All students in Blocks 1-4 are evaluated as follows
        i. Establish a checkpoint for mastery halfway through Phase 1 (one year)
        ii. Develop a method for measuring small group learning skills
        iii. Train facilitators to mentor student leaders in these skills specifically
        iv. Get students to identify learning goals in this domain, in consultation with their facilitator
        v. Send the goals forward to the next PCL facilitator for continued mentoring
    d. All students must achieve mastery of these competencies by the end of Block 4
    e. This process is in its fourth year of implementation, as described below.
2. iSPIRAL 2.0: Critical Thinking
    a. Students in PCL are evaluated using a competency-based milestone instrument modeled after ACGME assessments (used in residency programs, which students will be entering).
    b. One dimension measured over the entire Phase I curriculum is Critical Thinking
3. SimTutor: Critical Thinking and Information Literacy
    a. Students experience self-paced, interactive simulations built in SimTutor
    b. They proceed through filmed versions of simulated patient cases
    c. They are tested on their ability to detect errors, gather patient data, diagnose problems, and proscribe treatment
4. Teaching Medicine: Critical Thinking
    a. We have input multiple PCL patient cases into a tool called "Teaching Medicine"

b. Students work individually on a case to identify key information, formulate diagnosis lists, evaluate (promote, demote) diagnoses based on new data, order tests, interpret results, and make a final determination in a patient case.

The medical program has objectives, instructional activities and assessment items that target all aspects of UND's Essential Studies goals. A revised curriculum has been developed that further emphasizes these goals. The medical curriculum revision will be phased in starting July 2020. Select, brief examples of how we meet these goals below:
1) Taught and assessed through professor rounds, family connection exercise during required family medicine clerkship, and through selected EPA's in the 4th year acting internship.
2) Taught and assessed through patient-centered learning, and team-based learning small groups and patient interviewing
3) Students to be offered opportunities for advanced oral communication about research

INTERPROFESSIONAL EDUCATION
Interprofessional Education has been elevated to one of the 8 domains. It was determined that there were not enough objectives to account for Domain 7 (Interprofessional Collaboration), that those that existed were not in compliance with the approved format for course objectives, and that the two that did appropriately map to Domain 7 were not well aligned with the IPEC (the nationally accepted interprofessional standards). As a result, the Director and Assistant Director of Interprofessional Education/Collaboration drafted a document of 24 program objectives for IPE/D approved by CEMS and approved by UMEC (Appendix 1). These map to the previously proposed five competencies of Domain 7. As well, these align with the nationally used document **Core Competencies for Interprofessional Collaborative Practice: 2016 Update**. These new objectives were written with the need to specifically address promotion and assessment of effective oral and written communication, critical inquiry and analysis, quantitative reasoning, problem solving, information literacy, and intercultural knowledge and skills in mind. In addition, more IPE/C activities have been developed or are in development.

SIMULATION
Incorporation of Clinical Reasoning in Y2 instruction and testing. Class sessions, on-line practice sessions, end-of-block summative assessment using TeachingMedicine.com.

Students complete exams on Standardized Patients, document their History & Physical, record a 5-minute case oral presentation all receiving formative constructive feedback.

Interprofessional Simulations with NDSU Pharmacy, UND Nursing, PT, OT, Social Work, Med School including telemedicine component and with students of diverse intercultural backgrounds.

OFFICE OF MEDICAL PROGRAM ACCREDITATION AND QUALITY IMPROVEMENT
The medical education program's accrediting body, the Liaison Committee on Medical Education (LCME), sets the expectation of what is considered the appropriate educational content of the curriculum of medical programs leading to the MD degree. Educational topics that relate to the UND Essential Study Goals (ESGs) are identified among the curriculum content expectation of the LCME. The LCME publication, "Functions and Structures of a Medical School" defines the standards and elements in which medical programs are to demonstrate compliance in order to receive accreditation.

The following elements found in that document correspond to the UND ESGs:

Oral Communication: (Element 7.8 Communication Sills) The faculty of a medical school ensure that the medical curriculum includes specific instruction in communication skills as they relate to communication with patients and their families, colleagues, and other health professionals.

Critical Inquiry and Analysis: (Element 7.4 Critical Judgment/Problem Solving Skills) The faculty of a medical school ensure that the medical curriculum incorporates the fundamental principles of medicine, provides opportunities for medical students to acquire skills of critical judgment based on evidence and experience, and develops medical students' ability to use those principles and skills effectively in solving problems of health and disease.

Quantitative Reasoning: (Element 7.3 Scientific Method/ Translational and Clinical Research) The faculty of a medical school ensure that the medical curriculum includes instruction in the scientific method and in the basic scientific and ethical principles of clinical and translational research, including the ways in which such research is conducted, evaluated, explained to patients, and applied to patient care.

Intercultural Knowledge and Skills: (Element 7.6 Cultural Competence and Health Care Disparities) The faculty of a medical school ensure that the medical curriculum provides opportunities for medical students to learn to recognize and appropriately address biases in themselves, in others, and in the health care delivery process. The medical curriculum includes content regarding the following:
- The diverse manner in which people perceive health and illness and respond to various symptoms, diseases, and treatments
- The basic principles of culturally competent health care
- Recognition of the impact of disparities in health care on all populations and potential methods to eliminate health care disparities
- The knowledge, skills, and core professional attributes needed to provide effective care in a multidimensional and diverse society

Information Literacy: (Element 6.3 Self Directed and Life Long Learning) The faculty of a medical school ensure that the medical curriculum includes self-directed learning experiences and unscheduled time to allow medical students to develop the skills of lifelong learning. Self-directed learning involves medical students' self-assessment of learning needs; independent identification, analysis, and synthesis of relevant information; appraisal of the credibility of information sources; and feedback on these skills.

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LIBRARY RESOURCES
Library Resources supports accomplishment of Goal 1 by educational programs, particularly *information literacy*,

by continuing to explore electronic resources that best fit the needs of the SMHS community. We have established trials and temporary access to several new tools made available by vendors during the pandemic quarantine period. We have provided continued library instruction sessions to increase the information literacy levels of faculty and students. With the move to remote, virtual instruction, librarians have been creative and effective in providing content in new and engaging ways.

INFORMATION RESOURCES
Information Resources supports units with educational programs in carrying out educational goals but does not offer education program curriculum with learning outcomes that align with UND's Essential Studies goals.

2. Describe how your efforts are measured/assessed.

EDUCATION RESOURCES/MEDICAL EDUCATION
1. Small Group Leadership
    a. Small Group Leadership Form (available upon request)
    b. Administered by trained facilitators during PCL
2. iSPIRAL 2.0
    a. A competency-based milestone assessment rubric (available upon request)
3. SimTutor
    a. Student ratings of experience
    b. Built-in assessment of learning
4. Teaching Medicine
    a. Comprehensive student assessment dashboard to allow for data mining of entire pattern of choices and responses compared to expert performance.

Metrics of achievement of learning goals by medical students include # of students who complete the EPA without attaining the designated level of competence, # of students with successful assessment evaluations in patient-centered learning and team-based learning and # of students with successful clinical skills assessment scores, and # of students presenting poster, platform or workshop presentations at regional, national and international meetings

INTERPROFESSIONAL EDUCATION
There are currently 5 IPE/C required activities for all medical students, all rich in IPE/C experiences.
1. Interprofessional Health Care Course- A 1-credit classroom experience for 8 professions, including medical students. Small group facilitators within the course do evaluation and medical students have to take a short MCQ.
2. Simulation activities
    a. ROBOTS- telehealth sim with medical students, OT students, PT students, Nursing students, and Social Work students
    b. Medical students and PharmD (NDSU) students- opioid overdose
    c. Medical students and Nursing students
    Evaluation is done per usual simulation evaluations
3. Medical student/PharmD student "match". Individual students are matched to each other from each program to serve as each other's consultant through their education program. Still in the piloting phase, it's anticipated that student and faculty reflections will be used for evaluation
In addition, Interprofessional Student Community-based Learning Experiences (ISCLE) and the Global Health electives will promote intercultural knowledge and skills. Ad-hoc "student clinic" and "community health fairs"

may also do this. These may be tracked in the proposed novel Identify and Capture system outlined in #4 and Appendix 2.

SIMULATION
Qualtrics surveys to all students participating
After Action meetings for faculty/staff to debrief events
Summative testing of students

OFFICE OF MEDICAL PROGRAM ACCREDITATION AND QUALITY IMPROVEMENT
The ESGs are indirectly assessed by one of the UND SHMS medical program's LCME accreditation standards review committees, i.e., Education Accreditation Standards Review Committee (EASRC). Every 2 year scheduled reviews of the LCME accreditation standards related to the medical curriculum is part of the medical program's ongoing quality assurance processes. This review and analysis utilizes the current LCME data collection instrument (DCI) and the LCME Survey Team Report Template to guide the committee in making determinations whether or not the medical program is in compliance with the expectations set forth by the LCME. These documents allow the faculty members of EASRC to make compliance determinations by consensus.
1. By mapping of the curriculum content related to the ESG associated elements, UMEC is able to link education program objectives to outcome measures as demonstrated in LCME table 6.1-1. The assessment methods listed in this table are used to determine whether students are accomplishing the essential study goals embedded in the medical program curriculum.
2. The analysis of the results of the annual Graduate Questionnaire (GQ) allows the Undergraduate Medial Education Committee (UMEC) and its subcommittees another method to determine outcomes related to the content its medical curriculum and the essential study goals.

Documents Related to Data Analysis and Outcomes of UND SMHS Strategic Plan Goal 1

1. GQ reports
2. UMEC and its subcommittees minutes and reports
3. EASRC minutes and reports
4. Outcomes measures noted in table 6.1-1

LIBRARY RESOURCES

Data from a Library Resources survey conducted in AY2019-20 indicated satisfaction among survey participants with library resources and services and, particularly, the contribution of librarians to research and learning. Library Resources is developing a more formal method for assessing students' engagement and retention of information literacy competencies.

3. How were the data analyzed and what were the outcomes?

EDUCATION RESOURCES/MEDICAL EDUCATION
1. Small Group Leadership
   b. Three years of data collected have been collected on this initiative.
   c. We have analyzed data from the first and second year sand found that students are indeed at novice levels at the start and that they achieve mastery by the end of the first year
   d. We have made incremental adjustments to the form to improve ease of use and compliance
2. iSPIRAL 2.0

e. This form was redesigned in 2020 and will be implemented beginning in July of 2020. Data will be collected and analyzed and reported next year.
3. SimTutor
    f. This tool was used to create one simulation so far.
    g. Students reported that the tool was a very important addition to the curriculum and that they wanted many more simulations like it. Benefits included personalized feedback, multiple practice opportunities, time to reflect, process, and integrate learning into cognitive processes.
4. Teaching Medicine
    h. These cases have been entered into the tool and piloted with one class of students
    i. Students report high value in these cases and they will be expanded in the curriculum moving forward
    j. Data will be collected and analyzed and reported next year.

Outcomes of assessments include:
1) These students all achieved the designated levels of competence for passing their particular rotations. However, we will continue to track to determine whether levels of competence can be further increased.
2) We have had zero failures with unsuccessful remediation. All students have successfully passed oral communication assessment over the 2018-2019 academic year.
3) Although many students actively participated in Frank Low Research Day and the Service Learning symposium, we have not specifically tracked medical student participation in these activities over the past year. In addition, we do not have a centralized mechanism to track the # of students presenting at meetings outside UND, as this is not always reported. We do have at least the information reported in the table below, but suspect that these are underestimations.

	Invited Platform	Posters	Workshop	Total
National / International Meetings	2	11		13
Regional / Institutional Meetings	1	29		30

INTERPROFESSIONAL EDUCATION
The Interprofessional Health Care Course is pass/fail. It is a requirement for medical students. Student evaluations of the course are collected. A majority of students (80-85%) from all professions rate several parameters typically in the "agree" or "strongly agree" categories. These can be produced upon request. See #4 for proposed Identify and Capture proposal for identifying IPE/C across Phases 1, 2, and 3.

SIMULATION
Staff member gathers all Qualtrics data, compiles and puts into document for all faculty and staff to review. Information used to make appropriate changes/improvements to sessions.

OFFICE OF MEDICAL PROGRAM ACCREDITATION AND QUALITY IMPROVEMENT
All of the LCME elements linked to the UND ESGs have been determined by EASRC to meet LCME expectations with the exception of Element 7.8 (Cultural Competence) which is linked to the essential studies goal *Intercultural Knowledge and Skills*. GQ data over the past few years indicate that UND SMHS medial students do not feel that they are adequately prepared to care for patients from different cultures.

LIBRARY RESOURCES
Survey data were compiled and reported by Dr. Clint Hosford. Regarding Goal 1 and instruction in information

literacy, the survey revealed a high degree of satisfaction with librarians' professionalism, responsiveness, willingness to collaborate and knowledge and expertise. Survey participants agree that librarians are an asset to their research, professional development and learning.

4. Describe how your unit will implement any further changes and what barriers may exist.

EDUCATION RESOURCES/MEDICAL EDUCATION
1. Small Group Leadership
   a. The program will become a mandatory part of promotion decisions in the curriculum.
   b. There are several logistical challenges to this regarding remediation and whether it would count as a block failure but these can be overcome if approved.
2. iSPIRAL 2.0
   a. We will need to train faculty on the use of this new form and collect data to see how effective it is
   b. Baseline data for students will be analyzed and compared over time to see whether students achieve the desired competency.
   c. Once the above have been established, the form may become a part of promotion criteria and will be used as evidence of achievement of related program competencies too which it has already been linked.
3. SimTutor
   a. A proposal to adopt this tool for the MD program, the MLS program, the PA program, and the Nursing program (through shared cost) has been submitted.
   b. If approved, we will develop several simulations to expand the power of our PCL. Cases, simulations, and ability to assess diagnostic reasoning on an individual level.
4. Teaching Medicine
   a. We have partnered with the developer of this tool and have access to it at no cost. We will integrate it into our PCL cases as a measure of diagnostic reasoning on an individual level.

We propose to change the metric from the # of students with successful evaluations and scores to the # of students failing and not being able to remediate, as this will be an easier number to report.

Given our documented success with the first two metrics (as reported above), we could take the position that setting up a system to track this additional metric may be superfluous and perhaps it could be dropped. Alternatively, most of these students obtain excused absences to attend meetings or have some form of support to attend. Student Affairs is involved in both, so we could ask Student Affairs to track this in the future.

INTERPROFESSIONAL EDUCATION
Interprofessional team dynamics in the context of the Interprofessional Health Care Course (IPHC), simulation, and clinical settings will continue to promote and assess effective oral and written communication, critical thinking, quantitative reasoning, problem-solving and gathering of appropriate information related to clinical cases, including traditional sources, public media, and social media.

A novel Identify and Capture system with gamification will be used in the future to mine and document IPE/C interactions across Phases 1, 2, and 3. We anticipate these activities do occur in a variety of pre-clinical and clinical settings, and students should be credited for recognizing them in their usual workflow, as well as to seek them out for appropriate patient care (i.e., care plans, team-based care) (Appendix 1). We anticipate that the

previous (and still active) Interprofessional Student Community-based Learning Experiences (ISCLE) could be expanded as a model for clinical interactions to be identified and captured.

Gap analysis is underway to determine additional needs for IPE/C education across the curriculum.

Barriers will include the differentiation of true IPE/C from parallel activities, institutional barriers, and affirming uniformity in the capture and identify system.   Our point system with gamification will need to be trialed prior to adoption as curriculum.

SIMULATION
Use After Action reports, Qualtric data to identify areas of need/improvement and apply appropriate changes as needed.

Utilizing nationwide reference material obtained from professional simulation and directors' groups. We also contribute to the reference material.

OFFICE OF MEDICAL PROGRAM ACCREDITATION AND QUALITY IMPROVEMENT
It is the responsibility of the Office of Medical Program Accreditation and Quality Assurance to make improvements where increased efforts are needed to meet LCME expectations, and this occurs with regular review processes of the LMCE Elements and the associated data collection instrument (DCI).
When problems are identified by outcome data, it is then the responsibility of the Dean's Quality Improvement Group (DQIP), UMEC and subcommittees to determine needed improvements and implement quality improvement projects.

LIBRARY RESOURCES
Library Resources' has established the goal of communicating directly with each academic department to review current and improved information literacy integration. Virtual teaching and remote work has been a challenge in conducting this work. Staffing vacancies are also being addressed with the hope of being fully staffed with embedded librarians in fall 2020.

PROVIDE A RATING OF YOUR PROGRESS ON THIS GOAL: 🟢 **On Track;** 🟡 **Delayed;** 🔴 **Behind**
(additional space for text is provided on page 2 if needed)

🟢 **Education and Faculty Affairs units are on track with progress on Goal 1**

Additional Information on Goal 1 (optional):

Appendices are attached separately.