College of Health Sciences Undergraduate Student Success Initiative Report

Prepared by:

Karen Badger, Ph.D., M.S.W.
College of Social Work

Associate Dean Sharon R. Stewart, Ed.D.
College of Health Sciences

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Appendices

CHS Undergraduate Student Success Initiative Executive Summary

College of Health Sciences (CHS) Dean Scott Lephart requested an assessment of CHS Undergraduate Education for the purpose of examining strengths, limitations and opportunities to describe potential models for CHS undergraduate education and make recommendations that maximize resources, build upon synergies within the College, and best support the success of CHS undergraduate students. This initiative commenced in Fall 2016 under the leadership of Dr. Karen Badger, College of Social Work, and Associate Dean Sharon Stewart, CHS.

Anticipated outcomes of the initiative were to:

1) Assess the current state of undergraduate education in CHS in terms of supporting student success and effective use of resources and effort;

2) Identify potential strategies to improve student outcomes that include areas such as administrative structure, programming, pedagogy, resources, faculty engagement (in the classroom and across programs), and student engagement (curricular and co-curricular);

3) Describe potential models for undergraduate education in CHS to maximize resources, build upon synergies and best support success of CHS undergraduate declared and exploratory students;

4) Provide recommendations to enhance undergraduate student success and identify areas needing additional exploration to assist in developing strategies to respond to this charge.

Project Structure and Process

A CHS Undergraduate Success Project Advisory Committee was established with cross-college representation to provide input to aspects of the project, act as College-wide representatives, and provide member checks/review for data summaries and recommendations throughout. Project leaders reviewed existing CHS reports (2009-2015 Self-studies) and held meetings with each UG CHS program faculty, Division Directors, Department Chairs, CHS Undergraduate Research Director, Athletic Training, Directors of the Graduate and Professional Programs, professional staff from the Interprofessional Healthcare Residential College (IHRC) and Office of Student Affairs (OSA). A meeting was convened to discuss pre-professional students and Drs. Stewart and Badger joined a meeting of the established committee that was addressing needs of CHS exploratory students. A CHS undergraduate student sample provided a student perspective.

Meetings were conducted using a semi-structured discussion format and guiding questions developed from a Strengths, Weaknesses, Opportunities, and Challenges (SWOC) framework. Project leaders took field notes and forwarded summaries to program/unit directors (with a request to share with faculty/professional staff in attendance) for an accuracy review and member check. Once their accuracy was verified by program/unit directors, project leaders reviewed these data (independently and then together) for common themes and topics with relevance at the College level across group discussions. The emerging themes were cross-checked with the meeting summaries, other written materials, and by confirmation of their alignment with institutional and College priorities. Resulting themes and their descriptions were reviewed by the Advisory Committee and Dean Lephart. Two meetings were then organized during which faculty and staff could discuss recommendations and provide comments. From

these data and responses recommendations were formulated and shared with Dean Lephart, the Advisory Committee, and other CHS leadership prior to constructing a final report.

Themes and Recommendations

Emerging themes were categorized as either Anchor, Process (Means), Support, or Outcome themes. This conceptualization of categories is explained below. Each theme is followed by recommendations resulting from data gathered from multiple sources (e.g., discussions, literature review and benchmarking, CHS periodic review documents) follow each theme.

Anchor Themes

This category represents themes that are associated with undergraduate student experiences and address specific student group or curricular needs.

- **Community engagement** (service learning, observation, shadowing, clinical rotations)
  Providing educational community engagement opportunities to students and coordinating services- ongoing efforts to identify, support and sustain clinical placements and other types of student involvement and coordinate this within individual programs and coordinate at the CHS level.

    - Establish a function/position at the College level to (1) provide coordination of student involvement in clinical rotations, shadowing, and other community-based educational experiences across graduate and undergraduate programs, and (2) assist with facilitation of administrative aspects of community-based experiences, including overseeing and coordinating completion of MOAs across programs. The purpose of this recommendation is to coordinate and facilitate communication and collaboration among program level faculty/professional staff and with College community partners involved in student education. This function/position is being proposed to complement the role, responsibility, and control individual programs have in this area, not replace them.

    - Prioritize CHS needs regarding undergraduate and graduate student community engagement experiences to leverage use of community resources for placements/shadowing to support all programs, help meet licensure/accreditation requirements and minimize burden on the community. Explore alternatives for programs that have flexibility in how students gain knowledge of professions and community-based experience that fulfill program and student learning outcomes (e.g., shadowing) and review how experiences are processed and intentionally tied to program purpose and outcomes.

    - Provide support and professional development for those in the community working with CHS students to build relationships with community partners and communicate goals of students' community involvement, expectations of students, and methods of evaluation. Explore how AHEC could assist with this recommendation and how community partners could receive financial support or credit for their participation.

- **Integration of pre-professional students into CHS and majors**
  Integrating CHS and majors via co-curricular and exploratory/career-focused activities to help students confirm program fit and prepare for competitive admission process to major,

participate in undergraduate research/study abroad, and socialize into expectations of the profession (program-specific and those common to CHS pre-professional students overall) and its rigor— foci that are important to student retention, academic progression, and timely graduation.

- Better integrate CHS pre-professional students at the College level through activities designed to introduce students to the rigor of program curricula and subsequent careers, socialize students into the healthcare profession through shared professional skills, interprofessional teamwork, and competencies relevant across healthcare professions via collaboration among undergraduate programs, IHRC, OSA, and graduate/professional programs. *(Note: Do this by building on existing offerings within CHS and/or create broader access to current programming)*

- Encourage student involvement (early in their undergraduate careers) in the various high impact activities offered in CHS such as undergraduate research and education abroad.

- Explore creating a plan that increases the contact pre-professional students have with faculty, upper classmen, alumni, and clinicians through the offering extra or co-curricular activities that are 1) offered in a way that is attractive to students, 2) marketed well and strategically, 3) supported by program curriculum and tied to course expectations to increase student attendance. Consider creating a college graduation requirement for undergraduate student participation in such activities. Build on current efforts within CHS to develop a peer support or student mentor program and expand college-wide to connect first year undergraduate students to upper classmen with similar interests/majors.

- **Services for exploratory students**
  Establishing an advising pathway that includes advising, co-curricular and curricular activities, faculty and employer access to provide robust major and career exploration, development of professionalism and a sense of belonging in the CHS, and timely declaration of a major that suits the strengths, abilities, values, and goals of the students-- foci that are important to student retention, academic progression, and timely graduation.

  - It is recommended that the roles of faculty and professional staff in advising, mentoring and other support services for exploratory major students be clearly defined as the CHS prepares to welcome this new group of students in order to best use CHS resources and engage faculty and professional staff expertise.

  - Establish a college-wide systematic and intentional pathway through which students may (1) explore interests, values, skills, (2) apply decision-making methods, (3) investigate majors of interest and subsequent careers, (4) confirm their fit with and potential for success in a desired major, and (5) select a major.

  - Explore modifications of existing curriculum (e.g., 120 course series), other courses (e.g., sequencing/pre-requisites), and/or programs or development of new programs (e.g., a health navigation degree in collaboration with CCI to for an option not emphasizing hard

science) to provide additional options to meet needs of exploratory students and students in transition.

Process (Means) Themes

This category represents themes that assist with carrying out efforts associated with other identified themes and achieving desired outcomes.

- **Communication and cross involvement**
  Examining and improving communication and cross-involvement among undergraduate programs and undergraduate and graduate/ professional programs and among faculty/programs and professional staff in the Office of Student Affairs, IHRC LLP to further enhance use of CHS resources, minimize duplication of services and effort, meet needs of exploratory students, integrate and prepare pre-professional students; build cross-program/unit collaborations and communication between professional staff and faculty (to help reduce work burden and increase diversity).

  - Consider implementing an established structure/process to coordinate planning of and communication about undergraduate student activities/initiatives among programs, OSA. LLP, and other units and to facilitate communication and the gathering of faculty and professional staff input early in the planning process.

  - Minimize silos in CHS among faculty in different programs, Undergraduate Research, Academic Affairs, Student Affairs, and other administrative units by increasing the formal opportunities available for faculty and professional staff to learn about other programs, units, roles and responsibilities, and collaborate to identify, create, and collectively offer experiences for undergraduate students.

  - Inventory examples where Student Affairs, Faculty Affairs, OSA, faculty of undergraduate and graduate programs work together to identify program needs and plan initiatives and processes that help carry out the academic portion of the CHS mission and goals (e.g., development of four year curriculum plans, collaborating to identify program needs, offering tutoring services in response to student needs). Build upon these examples to create more opportunities, building on program needs and enhancements identified by program faculty.

- **Diversity and inclusiveness**
  Faculty of all programs wished for more diversity in their student body and additional methods through which inclusivity/a sense of belonging could be cultivated for students in general within programs and the CHS.

  - Build on the strong emphasis in CHS on cultural competence by strategically increasing opportunities to connect CHS students to international experiences by (1) considering opportunities to enroll international students in our programs, (2) providing Education Abroad opportunities to our students via CHS programs, and other programs, and (3) providing academic credit/financial support for these experiences.

  - Work through the CHS Diversity & Inclusion Committee (or other entities as deemed appropriate) to formulate and guide implementation of diversity-related initiatives

relevant to student recruitment and retention, further development of curricular-and co-curricular experiences, enhancement of students' sense of belongingness, and increased collaboration between CHS faculty and staff and community partners.

- Consider implementing a CHS curriculum requirement across all undergraduate programs or incorporating cross-disciplinary experiences into a class in each program or thread material through courses and co-curricular experiences (e.g., HHS cultural competence course).

- Identify supports required to further efforts to enhance diversity and inclusion within CHS that support student recruitment, engagement, and retention (e.g., faculty numbers and hires, professional staff needs, student services (tutoring, advising, financial aid), financial advising such as focused scholarship, etc.)

- **Innovative pedagogy and instructional delivery services**
  Planning for teaching *(*distance learning and face to face) to employ best practices, increase student access, and develop student competencies and mastery of applied skills and knowledge, while enhancing their engagement.

  - Develop a CHS-wide conceptualization/philosophy of distance learning education based on best practice, principles to guide translation of face to face pedagogy to appropriate, innovative distance learning pedagogy that utilizes available technology with the support of instructional design expertise.

  - Identify best practices upon which pedagogy in face-to-face and distance learning (on-line, flipped classes) courses can be grounded, taking into account student characteristics, optimal class size, specific course outcomes and program goals in pedagogy design.

  - Increase opportunities for interprofessional education within the College and across campus.

- **Recruitment, applications, admissions**
  Increasing applicant pool and pursue planned growth in student enrollment of diverse, qualified and well-prepared applicants was discussed across programs; examine admission standards across CHS (perhaps to develop a more universal admission process/requirements).

  - Continue to refine current holistic admission process to CHS undergraduate programs and identify elements of student preparation for competitive applications that are universal for all programs to establish a CHS-level expectation.

  - Identify opportunities to develop College level, coordinated efforts in the admission process and examine admission requirements to make them as similar across programs as possible for ease of application and transition between majors when it occurs

  - Support timely application and eligibility for admission of CHS students to programs as full major (professional) students by implementing strategies and pathways that help

students understand the scope and rigor of majors and careers and confirm their interest in and commitment to a declared major as soon as possible.

Support Theme

This category represents the theme that captures the resources desired or required to support carrying out initiatives associated with other theme categories.

- **Faculty, staff, student, and other resources (space, equipment, monetary)**
  Supporting program growth and meeting all aspects of the mission of CHS (on main and Hazard locations) requires the resources necessary to support undergraduate students in achieving curricular and co-curricular success (including financial support, space, and faculty)

    - Inventory needs for faculty, staff, and other resources (including space) to ensure adequate support for existing and potential new programs/tracks that align with CHS priorities and are supported by evidence of need and demand.

    - Investigate possible modifications in structure and process to increase efficiency and inclusivity that leverages existing programming to meet student and program needs and minimize burden on staff and faculty.

    - Clearly define faculty and professional staff roles and responsibilities (within programs, between faculty and Office of Student Affairs, Office of Academic and Faculty Affairs, Associate Dean for Clinical Engagement) around responsibilities such as advising, etc., in relation to UGE.

Outcome Themes

This category refers to desired results and potential metrics to assess project/ student success.

- **Individualized education** (quality instruction and advising/student support with planned program growth)**:** Faculty across programs and professional unit staff voiced their commitment to provide high quality instruction to their students both in and outside the classroom and retain the current level of responsiveness/availability as program growth is pursued in a planned and strategic way.

    - Protect this CHS strength by growing programs strategically, considering the addition of new programs in response to evidence and demonstrated need and accounting for the support required to retain student-faculty ratio and provide quality education, and securing necessary resources for instruction and student advising services (goal- 1 advisor to 100 or 150 students).

    - Continue to provide high quality instruction in and out of the classroom and increase faculty involvement and student participation in undergraduate research, education abroad, interprofessional activities, and other high impact activities.

    - Retain current level of responsiveness/availability of faculty to students and OSA/advisors to students while growing programs/enrollment.

- Offer faculty professional development related to best practices (for example, individual student mentoring, managing small class discussions, flipped classrooms, teaching large classes) for all faculty (consider a menu of trainings so that support can be individualized) and offer development opportunities for staff relevant to their positions and aspirations.

- **Student retention, academic progression, graduation, placement (employment or grad school), and overall success**
  Examining undergraduate program structure across CHS to enhance integration of undergraduate education support resources (including financial support of students) and increase cross-program collaboration to support student success, encourage involvement in applied and/or enrichment experiences, and assess student success and progress.

  - Cultivate a sense of connection and belongingness for students (particularly first year students) by establishing CHS wide and formalized peer support that involves upperclassmen, pre-professional clubs, and ambassadors.

  - Plan an itinerary of offerings for pre-and exploratory students of periodic program-wide events or opportunities to meet faculty and learn about majors and careers in conjunction with the LLP and OSA.

  - Expand opportunities for students to obtain financial support through scholarships, etc. to support retention and academic progression.

  - Examine program structure across CHS to enhance integration of undergraduate education support resources with programs to increase collaborations to support student success.

  - Establish the CHS Office of Assessment as the centralized coordinator and curator of program and student assessment, responder to CHS data requests (through direct activity or delegation) and organizer of data collection and analysis plans.

Curriculum and Structure

The roles of curricula and CHS structure emerged as important to the enhancement of undergraduate education in CHS and its delivery. Accordingly, recommendations in these two areas are listed below. Additional details about these two areas are provided in the full report.

Curriculum

- Undertake an examination of the curriculum of each undergraduate program (particularly those not associated with an accrediting agency or professional association) to articulate vision, mission, program goals, student learning outcomes, and complete curriculum mapping to ensure coherent conceptualization and continued relevance of coursework for pre-professional preparation and each degree and program purpose, and address any duplication or overlap among programs. *Note: goal is to craft a conceptualization for each degree and a coherent and clear narrative that ties the courses to the SLO, program goals and purpose,*

- Ensure that each program has an internal curriculum change/approval and review process that is democratic, inclusive and known to all faculty and implemented with accountability.

- Ensure that practices are in compliance with SACS and professional accreditation expectations.

- Explore opportunities to connect students of all (or some) CHS undergraduate programs through course offerings that have shared relevance (e.g., focused on professionalism, general healthcare knowledge, foundational courses, interprofessional education).

- Explore opportunities for curriculum/program development that could assist exploratory students or those in transition to progress towards a degree with minimal lost time and/or credit (e.g., HHS general track, development of first year course requirements shared across programs).

- Continue discussion/ development of honors pathway with faculty and professional staff.

Structure:

- Explore possible structure changes to address silos among programs and between programs and administrative offices and OSA to streamline internal processes, increase communication, enhance faculty awareness of CHS programs and initiatives, identify opportunities for collaboration, track initiatives to look for synergies and potential duplications, and encourage efficient use of resources and support of faculty and staff.

- Examine current structure within CHS Departments and Divisions to make recommendations for modifications or changes to enhance efficiency and clarify roles and responsibilities.

- Examine the roles and functions of various offices/administrative positions within the CHS to address the general role confusion within the CHS and its programs noted in this review, including those of the Office of Student Affairs, Office of Associate Dean for Faculty and Academic Affairs, Office of Assessment, Department Chairs, Division Directors, faculty vs. professional staff in CHS and within programs. Review and confirm how Director of Undergraduate Student functions are systematically and consistently carried out for each program and student issues addressed and resolved.

College of Health Sciences Undergraduate Education Student Success Full Report

Description of the Charge

Dr. Scott Lephart, Dean of the University of Kentucky, College of Health Sciences (CHS), requested an assessment of CHS Undergraduate Education for the purpose of examining strengths, limitations, and opportunities to describe potential models for CHS undergraduate education and make recommendations that maximize resources, build upon synergies within the College and gest support the success of CHS undergraduate education. This initiative commenced in Fall 2016 under the leadership of Dr. Karen Badger, College of Social Work, and Associate Dean Sharon Stewart, CHS.

Anticipated outcomes of the initiative were to:

1) Assess the current state of undergraduate education in CHS from the perspective of support of student success and effective use of resources and effort;

2) Identify potential strategies to improve student outcomes that include areas such as administrative structure, programming, pedagogy, resources, faculty engagement (in the classroom and across programs), and student engagement (curricular and co-curricular);

3) Describe potential models and/or their elements for undergraduate education in CHS that maximize resources, build upon synergies within CHS, and best support the success of CHS undergraduate declared and exploratory students;

4) Provide recommendations to enhance current efforts to enhance undergraduate student success and identify areas in need of additional exploration to assist in developing strategies to respond to this charge.

Project Structure and Process

A CHS Undergraduate Success Project Advisory Committee was established with cross-college representation to provide input to aspects of the project, act as College-wide representatives, and provide member checks/review for data summaries and recommendations throughout. Advisory Committee members are: Dr. Geza Bruckner (HHS/CLM), Dr. Michelle Butina (MLS), Dr. Carl Mattacola (AD/AT), Brendon O'Farrell (IHRC), Dr. Anne Olson (CSD), Dr. Randa Remer (OSA), and Dr. Jami Warren (HHS/CLM).

Project leaders reviewed existing CHS reports (2009-2015 Self-studies) and held meetings with each UG CHS program faculty, Division Directors, Chairs, CHS Undergraduate Research Certificate Director, Athletic Training, Directors of the Graduate and Professional Programs, professional staff from the Interprofessional Healthcare Residential College and Office of Student Affairs (OSA). A meeting was convened to discuss pre-professional students and Drs. Stewart and Badger joined a meeting of the established committee that was addressing needs of CHS exploratory students. A CHS undergraduate student sample provided a student perspective.

Meetings were conducted using a semi-structured discussion format and guiding questions developed from a Strengths, Weaknesses, Opportunities, and Challenges (SWOC) framework. Project leaders took field notes and forwarded summaries to program/unit directors (with a request to share with faculty/professional staff in attendance) for an accuracy review and member check. Once their accuracy was verified by program/unit directors, project leaders reviewed these data (independently and then

together) for common themes and topics with relevance at the College level across group discussions. The emerging themes were cross-checked with the meeting summaries, other written materials, and by confirmation of their alignment with institutional and College priorities. Resulting themes and their descriptions were reviewed by the Advisory Committee and Dean Lephart. Two meetings were then organized during which faculty and staff could discuss recommendations and provide comments. From these data and responses recommendations were formulated and shared with Dean Lephart, the Advisory Committee, and other CHS leadership prior to constructing a final report.

Strengths, Weaknesses, Opportunities, Threats

Meeting summaries were reviewed to identify strengths, weaknesses, opportunities, and threats at the College level. Those that are summarized in this section were discussed during multiple discussions and/or have implications at the College level.

Strengths: Overall, faculty and professional staff considered the CHS environment friendly and supportive. There is interest and commitment to undergraduate education. A notable strength is the dedication and enthusiasm of the faculty and professional staff about their programs, students, work, and contributions. Faculty and professional staff are well accomplished and are invested in their students' success. Faculty described an 'open door' approach in their work with students and their commitment to provide individualized education. Faculty and professional staff were also very engaged throughout the process of this project and in discussions about undergraduate education. The faculty and professional staff exhibit a great deal of pride in the CHS and their programs, the caliber of their students, and the outcomes generated. There is a strong desire to utilize high impact practices and to continue to develop knowledge related to teaching and pedagogy (for example, distance learning and managing larger classes). Most programs employ some community-based experiences to provide students with opportunities for application of knowledge. There was universal acknowledgment that diversity within the CHS faculty and student body needs to be increased.

The Office of Student Affairs (OSA) and Interprofessional Residential Healthcare College (IHRC) both provide high caliber and diverse student support and programming that assists with student exploration and development and supports their success. This programming and advising approach/support already in place will support the CHS in constructing a supportive trajectory for exploratory Health Sciences students. There are diverse majors and professions within the CHS about which students can become acquainted, which is helpful to both exploratory and pre-professional students and which create opportunity for interprofessional programming.

The UG programs have selective admissions or an application process that coincides with application to UK, which help to admit students with the potential of meeting academic and program goals. Admissions are competitive, which also challenges students to put forth their best effort. Student success metrics (retention rates, graduation rates, academic progression, etc.) are all excellent and demonstrate the effectiveness of the OSA and faculty in supporting students.

Weaknesses: There is much good work that is being done within programs and throughout the CHS (e.g., OSA and IHRC) that is not as well-known as it could be across the College. Communication between CHS Undergraduate Education programs and between OSA and academic programs could be enhanced as this was noted as an area in which change was desired. There are many opportunities for collaboration within the College, but siloing of programs and units limits these possibilities.

Another source of stress expressed by every program is student involvement in the community for educational purposes. Most programs require some form of community-based learning, whether it is volunteering, shadowing or clinical. This expectation also extends to students in Graduate and Professional programs. This can be a difficult requirement to fulfill due to competition for and limitation of available, adequate sites in the community and limited numbers of placements/preceptors. Competition for student placement is present within CHS as multiple programs may be using the same site for student placements, and also with other universities. Locating suitable clinical or practicum sites is very time intensive. Difficulties further arise due to the lack of coordination of educational community-based learning at the College level, which can give rise to duplication (e.g., MOA agreements), unintentional limiting of opportunities for students in other programs, and multiple and uncoordinated outreaches to community partners from the CHS, which create confusion for partners and can reflect negatively on CHS. This was mentioned as a pain point by faculty of each academic program.

Another limitation felt universally was lack of resources—particularly faculty and classroom space. Faculty reported feeling stretched as they attempt to meet all aspects of the CHS and UK mission, with little room to absorb additional responsibilities. This makes innovation and assuming additional responsibilities difficult.

Space limitations were mentioned in that program and student body growth are impacted by space availability. Of particular note is the lack of mobile furniture that can be configured multiple ways, limitations on the number of ITV classrooms, and unavailability of large classrooms. Also, the anticipated arrival of exploratory students in the CHS creates the need for additional support in advising services and other professional support requiring office space.

When discussing pedagogy and instruction, faculty identified the need for in-house instructional design support for transforming face to face courses to distance learning versions and ongoing support.

Opportunities: Faculty and staff were supportive of program and student body growth if approached strategically with a plan to maintain their current ability to work closely with students and provide individualized attention. Data-informed and strategic program development could enhance existing undergraduate offerings, particularly if reviews of current curriculum and program models also occur.

The arrival of exploratory students and the need to meet their needs creates an opportunity to revisit the experience of pre-professional students and how to further optimize their support. In discussions with faculty and professional staff, the observation was made several times that, in some ways, pre-professional students are similar to exploratory, as they are becoming acquainted with majors, careers, and expectations, and exploring their fit for their declared programs. This point is underscored when looking at admission rates of pre-professional students into the majors for which they were declared. There is an opportunity to develop a structured approach that pulls from both curricular and co-curricular strengths and existing programming to help students declare and/or confirm their majors. Services for the CHS pre-professional and exploratory students could be investigated to see how they might be brought together to address common needs and establish a ‘home’ for these two student groups.

The shared concern about community/clinical placements creates the opportunity to investigate a College level solution that can offer coordination and communication pathways to support the efforts being made by individual programs. This could take the form of a position or an assigned function,

designed to address coordination needs and compliance requirements, including MOAs. Addressing the need for increased communication and information sharing may also assist in alleviating some of the issues surrounding clinical/community student learning activities.

Increased attention to undergraduate education in CHS also creates opportunities to involve faculty in different ways with undergraduate students, encourage participation in high impact activities such as education abroad, interprofessional education, and undergraduate research, and investigate shared programming or initiatives for students across programs about shared topics (e.g., major and careers, professionalism, ethics).

Continued discussion about or implementation of these recommendations creates an opportunity to reexamine organizational structure to ensure that the established infrastructure supports coordination, collaboration, and communication efforts regarding undergraduate education and student success.

Challenges: The state of availability of clinical placements and community sites and the potential for options diminishing further is a challenge. The CHS faces competition from other universities and UK colleges with health care programs as they try to meet their students' needs. Availability (or lack thereof) of such sites may also impact program growth and development. Addressing some of the tensions and unintended competition internal to the College around this issue could help address this challenge. Coordination, communication, and investigation of alternative ways through which students may be able to obtain exposure to careers, professions, and complete required applied experiences may assist with alleviating this difficulty.

The anticipated influx of exploratory students creates a challenge in that it calls upon CHS to provide services to a new group of students. Planning for this cohort with little lead time available and limited details such as student numbers, etc. creates an additional challenge as the University continues with dynamic restructuring. This might best be seen as a challenge as well as an opportunity.

Faculty resources appear to be strained, limited space presents a challenge, and professional staff support is also stretched. Additionally, the CHS is considering internal changes and possible restructuring at a time that the University at large is doing the same. This could result in a great deal of stress, which will need to be managed. Plans for how to move forward with new initiatives, further investigation, or reorganization might want to take this into account. As with any potential reorganization or changing of processes/procedures, a certain amount of anxiety, uncertainty, and worry can be present, even if the exploration is welcomed and there is excitement about the potential result. This also will need to be monitored and faculty and staff supported throughout.

A strength of CHS is the strong commitment of faculty to their programs and students and it will require a shift to adopting a broader perspective to detail and implement solutions at a College level, while maintaining program level commitment. Working from this broader view creates the challenge of forging a new (or more clearly articulated and shared) collective identity through which faculty and staff can connect.

Communication—which was noted as a weakness or limitation—could present as a challenge as continued exploration or implementation of recommendations occurs. Faculty and staff were very involved with this project, as the Dean had anticipated. Continuing with the commitment to seek their involvement and input as the process/discussion moves forward can help momentum and enrich the planning

Description and Conceptualization of Themes

This section describes the themes that emerged from the SWOC and discussions with faculty and staff. Emerging themes have been categorized as either Anchor, Process (Means), Support, or Outcome themes. A description of the themes and a conceptualization of categories are explained below.

Anchor Themes

This category represents themes that are associated with undergraduate student experiences and address specific student group or curricular needs.

- **Community engagement** (service learning, observation, shadowing, clinical rotations)
  Providing educational community engagement opportunities to students and coordinating services- ongoing efforts to identify, support and sustain clinical placements and other types of student involvement and coordinate this within individual programs and coordinate at the CHS level.

- **Integration of pre-professional students into CHS and majors**
  Integrating CHS and majors via co-curricular and exploratory/career-focused activities to help students confirm program fit and prepare for competitive admission process to major, participate in undergraduate research/study abroad, and socialize into expectations of the profession (program-specific and those common to CHS pre-professional students overall) and its rigor— foci that are important to student retention, academic progression, and timely graduation.

- **Services for exploratory students**
  Establishing an advising pathway that includes advising, co-curricular and curricular activities, faculty and employer access to provide robust major and career exploration, development of professionalism and a sense of belonging in the CHS, and timely declaration of a major that suits the strengths, abilities, values, and goals of the students-- a foci that are important to student retention, academic progression, and timely graduation.

Process (Means) Themes

This category represents themes that assist with the carrying out of efforts associated with other identified themes and achieving desired outcomes.

- **Communication and cross involvement**
  Examining and improving communication and cross-involvement among undergraduate programs and undergraduate and graduate/ professional programs and among faculty/programs and professional staff in the Office of Student Affairs, IHRC LLP to further enhance use of CHS resources, minimize duplication of services and effort, meet needs of exploratory students, integrate and prepare pre-professional students; build cross-program/unit collaborations and communication between professional staff and faculty (to help reduce work burden and increase diversity).

- **Diversity and inclusiveness**
  Faculty of all programs wished for more diversity in their student body and additional methods through which inclusivity/a sense of belonging could be cultivated for students in general within programs and the CHS.

- **Innovative pedagogy and instructional delivery services**
  Planning for teaching *(*distance learning and face to face) to employ best practices, increase student access, and develop student competencies and mastery of applied skills and knowledge, while enhancing their engagement.

- **Recruitment, applications, admissions**
  Needing to increase applicant pool and pursue planned growth in student enrollment of diverse, qualified and well-prepared applicants was discussed across programs; examine admission standards across CHS (perhaps to develop a more universal admission process/requirements).

Support Theme

This category represents the theme that captures the resources desired or required to support carrying out initiatives associated with other theme categories.

- **Faculty, staff, student, and other resources (space, equipment, monetary)**
  Supporting program growth and meeting all aspects of the mission of CHS (on main and Hazard locations) requires the resources necessary to support undergraduate students in achieving curricular and co-curricular success (including financial support, space, and faculty)

Outcome Themes

This category refers to desired results and potential metrics to assess project/ student success.

- **Individualized education** (quality instruction and advising/student support with planned program growth)**:** Faculty across programs and professional unit staff voiced their commitment to provide high quality instruction to their students both in and outside the classroom and retain the current level of responsiveness/availability as program growth is pursued in a planned and strategic way.

- **Student retention, academic progression, graduation, placement (employment or grad school), and overall success**
  Examining undergraduate program structure across CHS to enhance integration of undergraduate education support resources (including financial support of students) and increase cross-program collaboration to support student success, encourage involvement in applied and/or enrichment experiences, and assess student success and progress.

Theme Alignment with Institutional and College Priorities

The generated themes were checked for alignment with the *Undergraduate Education Pillars* set forth by the Provost's Office (http://www.uky.edu/provost/transforming-academic-excellence), the *College of Health Sciences Strategic Priorities,* and the *CHS Dean's priorities for 2017*. The CPE 2016-2021 Strategic Agenda for Postsecondary and Adult Education (*Stronger by Degrees)* was also reviewed (http://cpe.ky.gov/ourwork/documents/201621strategicagenda.pdf. in relation to these themes. In this document 11 state-wide level objectives designed to support post-secondary student success in Kentucky are discussed. These state-wide priorities are consistent with the College-level themes generated in this initiative.

Themes are presented in the table below in relation to (1) UK Undergraduate Education Pillars, (2) CHS Strategic Priorities, (3) CHS Dean's 2017 priorities, and (4) the CPE 2016-2021 Strategic Agenda using the UK Undergraduate Education Pillars as the organizing factor. Themes are aligned with categories created from all document sources as appropriate and are repeated if applicable to more than one category.

Table 1: Alignment of Themes with State, institution, and CHS Priorities				
UK UG Ed Pillars	**CHS Strategic Planning Priorities**	**CHS Dean's Priorities 2017**	**CPE Strategic Agenda 2016-21 Post-secondary- Adult Education**	**Discussion Themes**
Academic Success	Student Success Research & Creativity Diversity & Inclusiveness Community Engagement	Academic Excellence Strategic collaborations (academic, research, and clinical)	**Objective 6:** Increase persistence and timely completion for all students at all levels, particularly for low-income and underrepresented minority students **Objective 8:** Promote academic excellence through improvements in teaching and learning **Objective 9:** Improve the career readiness and employability of postsecondary education graduates	-- Student retention, academic progression, graduation, placement and overall success -Innovative pedagogy and instructional delivery systems - - Faculty, staff, student, and other resources -- Recruitment, applications, admissions -- Services for exploratory students --Integration of pre-professional students into CHS and majors --Communication and cross involvement --Community engagement -- Diversity/Inclusiveness
Belongingness & Engagement	Diversity & Inclusiveness Research & Creativity Community Engagement Student Success	Strategic collaborations (academic, research, and clinical)	**Objective 1:** Improve diversity and inclusiveness of KY's campuses through the statewide diversity planning process & related initiatives **Objective 11:** Expand regional partnerships, outreach and public service that improve the health and quality of life of Kentucky communities.	-- Student retention, academic progression, graduation, placement and overall success --Community engagement -Diversity/Inclusiveness - Integration of pre-professional students into CHS and majors - Communication and cross involvement
Financial Stability	Student Success	Strategic collaborations (academic, research, and clinical)	**Objective 5:** Expand financial access to postsecondary education	-- Student retention, academic progression, graduation, placement and overall success -Integration of pre-professional students into CHS and majors --Services for exploratory students -- Communication and cross involvement -- Faculty, staff, student and other resources
Wellness	Student Success Diversity & Inclusiveness	Academic Excellence	**Objective 1:** Improve the diversity and inclusiveness of KY's campuses through the statewide diversity planning process and related initiatives	-- Student retention, academic progression, graduation, placement and overall success --Individualized education --Communication and cross-involvement

Benchmark Institutions

Benchmark institutions were reviewed to gather data about undergraduate programs, student support and enhancement activities, and administrative structure. The institutions reviewed were those in the Santa Fe group, which is used by CHS for other benchmark activities. In addition, the MLS program director provided a list of institutions, some of which were cross-listed with the Santa Fe group.

Benchmarks were reviewed prior to the discussions with CHS faculty and staff and then again once emerging themes were identified. The second review focused on the areas identified as common across discussions with the aim to identify strengths or program/support ideas that could be further explored in relation to CHS. A summary of findings from the Santa Fe institutions is provided in Appendix A. A review of the structure of a sample of graduate and professional programs is summarized in Appendix B and a description of various administrative models employed at UK is summarized in Appendix C.

Literature Reviews

Literature reviews were conducted to identify scholarly resources that could assist with exploring the areas of (1) advising/support of exploratory students (Appendix D), (2) pedagogy (Appendix E), (3) policy, structure, and planning (Appendix F), and (4) class size (Appendix G), which are drawn upon accordingly in this report. Annotated bibliographies of these resources are provided as Appendices.

Project Recommendations

The recommendations provided in this report for each theme previously introduced were developed from data gathered from multiple sources including discussions with CHS faculty and professional staff, students, literature reviews, benchmarking, and CHS periodic review documents (See Appendix H for statements of support found in Periodic Review documents for themes and recommendations).

Anchor Themes

This category represents themes that are associated with undergraduate student experiences and address specific student group or curricular needs.

- **Community engagement** (service learning, observation, shadowing, clinical rotations)
    - Establish a function/position at the College level to (1) provide coordination of student involvement in clinical rotations, shadowing, and other community-based educational experiences across graduate and undergraduate programs, and (2) assist with facilitation of administrative aspects of community-based experiences, including overseeing and coordinating completion of MOAs across programs. The purpose of this recommendation is to coordinate and facilitate communication and collaboration among program level faculty/professional staff and with College community partners involved in student education. This function/position is being proposed to complement the role, responsibility, and control individual programs have in this area, not replace them.
    - Prioritize CHS needs regarding undergraduate and graduate student community engagement experiences to leverage use of community resources for placements/shadowing to support all programs, help meet licensure/accreditation

requirements and minimize burden on the community. Explore alternatives for programs that have flexibility in how students gain knowledge of professions and community-based experience that fulfill program and student learning outcomes (e.g., shadowing) and review how experiences are processed and intentionally tied to program purpose and outcomes.

- Provide support and professional development for those in the community working with CHS students to build relationships with community partners and communicate goals of students' community involvement, expectations of students, and methods of evaluation. Explore how AHEC could assist with this recommendation and how community partners could receive financial support or credit for their participation.

- **Integration of pre-professional students into CHS and majors**

  - Better integrate CHS pre-professional students at the College level through activities designed to introduce students to the rigor of program curricula and subsequent careers, socialize students into the healthcare profession through shared professional skills, interprofessional teamwork, and competencies relevant across healthcare professions via collaboration among undergraduate programs, iROCK, OSA, and graduate/professional programs. *(Note: build on existing offerings within CHS and/or create broader access to current programming)*

  - Encourage student involvement (early in their undergraduate careers) in the various high impact activities offered in CHS such as undergraduate research and education abroad.

  - Explore creating a plan that increases the contact pre-professional students have with faculty, upper classmen, alumni, and clinicians by offering of extra or co-curricular activities that are 1) offered in a way that is attractive to students, 2) marketed well and strategically, and 3) supported by program curriculum and tied to course expectations to increase student attendance. Consider creating a college graduation requirement for undergraduate student participation in such activities. Build on current efforts within CHS to develop a peer support or student mentor program and expand college-wide to connect first year undergraduate students to upper classmen with similar interests/majors.

- **Services for exploratory students**

  - Clearly define the roles of faculty and professional staff in advising, mentoring and other support services for exploratory major students as the CHS prepares to welcome this new group of students in order to best use CHS resources and engage faculty and professional staff expertise.

  - Establish a college-wide systematic and intentional pathway through which students may (1) explore interests, values, skills, (2) apply decision-making methods, (3) investigate majors of interest and subsequent careers, (4) confirm their fit with and potential for success in a desired major, and (6) select a major.

- Explore modifications of existing curriculum (e.g., 120 course series), other courses (e.g., sequencing/pre-requisites), and/or programs or development of new programs (e.g., a health navigation degree in collaboration with CCI to for an option not emphasizing hard science) to provide additional options to meet needs of exploratory students and students in transition.

Process (Means) Themes

This category represents themes that assist with carrying out efforts associated with other identified themes and achieving desired outcomes.

- **Communication and cross involvement**

  - Consider implementing an established structure/process to coordinate planning of and communication about undergraduate student activities/initiatives among programs, OSA. LLP, and other units and to facilitate communication and the gathering of faculty and professional staff input early in the planning process.

  - Minimize silos in CHS among faculty in different programs, Undergraduate Research, Academic Affairs, Student Affairs, and other administrative units by increasing the formal opportunities available for faculty and professional staff to learn about other programs, units, roles and responsibilities, and collaborate to identify, create, and collectively offer experiences for undergraduate students.

  - Inventory examples where Student Affairs, Faculty Affairs, and faculty of undergraduate and graduate programs work together to identify program needs and plan initiatives and processes that help carry out the academic portion of the CHS mission and goals (e.g., development of four year curriculum plans, collaborating to identify program needs, offering tutoring services in response to student needs). Build upon these examples to create more opportunities, building on program needs and enhancements identified by program faculty.

- **Diversity and inclusiveness**

  - Build on the strong emphasis in CHS on cultural competence by strategically increasing opportunities to connect CHS students to international experiences by (1) considering opportunities to enroll international students in our programs, (2) providing Education Abroad opportunities to our students via CHS programs, and other programs, and (3) providing academic credit/financial support for these experiences.

  - Work through the CHS Diversity & Inclusion Committee (or other entities as deemed appropriate) to formulate and guide implementation of diversity-related initiatives relevant to student recruitment and retention, further development of curricular-and co-curricular experiences, enhancement of students' sense of belongingness, and increased collaboration between CHS faculty and staff and community partners. Consider implementing a CHS curriculum requirement across all undergraduate programs or incorporating cross-disciplinary experiences into a class in each program or thread material through courses and co-curricular experiences (e.g., HHS cultural competence course).

- Identify supports required to further efforts to enhance diversity and inclusion within CHS that support student recruitment, engagement, and retention (e.g., faculty numbers and hires, professional staff needs, student services (tutoring, advising, financial aid), financial advising such as focused scholarship, etc.)

- **Innovative pedagogy and instructional delivery services**

  - Develop a CHS-wide conceptualization/philosophy of distance learning education that articulates vision, goals, commitment to pedagogy and methods that teach applied skills, and principles to guide translation of face to face pedagogy to appropriate, innovative distance learning pedagogy that utilizes available technology with the support of instructional design expertise.

  - Identify best practices upon which pedagogy in face-to-face and distance learning (on-line, flipped classes) courses can be grounded, taking into account student characteristics, optimal class size, specific course outcomes and program goals in pedagogy design.

  - Increase opportunities for interprofessional education within the College and across campus.

- **Recruitment, applications, admissions**

  - Continue to refine current holistic admission process to CHS undergraduate programs and identify elements of student preparation for competitive applications that are universal for all programs to establish a CHS-level expectation.

  - Identify opportunities to develop College level, coordinated efforts in the admission process and examine admission requirements to make them as similar across programs as possible for ease of application and transition between majors when it occurs

  - Support timely application and eligibility for admission of CHS students to programs as full major (professional) students by implementing strategies and pathways that help students understand the scope and rigor of majors and careers and confirm their interest in and commitment to a declared major as soon as possible.

Support Theme

This category represents the theme that captures the resources desired or required to support carrying out initiatives associated with other theme categories.

- **Faculty, staff, student, and other resources (space, equipment, monetary)**

  - Inventory needs for faculty, staff, and other resources (including space) to ensure adequate support for existing and potential new programs/tracks that align with CHS priorities and are supported by evidence of need and demand.

- Investigate possible modifications in structure and process to increase efficiency and inclusivity that leverages existing programming to meet student and program needs and minimize burden on staff and faculty.

- Clearly define faculty and professional staff roles and responsibilities (within programs, between faculty and OSA, Office of Academic and Faculty Affairs, Associate Dean for Clinical Engagement) around responsibilities such as advising, etc., in relation to UGE.

Outcome Themes

This category refers to desired results and potential metrics to assess project/ student success.

- **Individualized education** (quality instruction and advising/student support with planned program growth)

  - Protect this CHS strength by growing programs strategically, considering the addition of new programs in response to evidence and demonstrated need and accounting for the support required to retain student-faculty ratio and provide quality education, and securing necessary resources for teaching and student advising services (goal- 1 advisor to 100 or 150 students).

  - Continue to provide high quality instruction in and out of the classroom and increase faculty involvement and student participation in undergraduate research and, education abroad, interprofessional education, and other high impact activities.

  - Retain current level of responsiveness/availability of faculty to students and OSA/advisors to students while growing programs/enrollment.

  - Offer faculty professional development related to best practices (for example, individual student mentoring, managing small class discussions, flipped classrooms, teaching large classes) for all faculty (consider a menu of trainings so that support can be individualized) and offer development opportunities for staff relevant to their positions and aspirations.

- **Student retention, academic progression, graduation, placement (employment or grad school), and overall success**

  - Cultivate a sense of connection and belongingness for students (particularly first year students) by establishing CHS wide and formalized peer support that involves upperclassmen, pre-professional clubs, and ambassadors.

  - Plan an itinerary of offerings for pre-and exploratory students of periodic program-wide events or opportunities to meet faculty and learn about majors and careers in conjunction with the LLP and OSA.

  - Expand opportunities for students to obtain financial support through scholarships, etc. to support retention and academic progression.

- Examine program structure across CHS to enhance integration of undergraduate education support resources with programs to increase collaborations to support student success.

- Establish the CHS Office of Assessment as a centralized coordinator and curator of program and student assessment, responder to CHS data requests (through direct activity or delegation) and organizer of data collection and analysis plans.

Curriculum and Structure

The roles of curricula and CHS structure emerged as important to the enhancement of undergraduate education in CHS and its delivery. Accordingly, recommendations in these two areas are listed below.

Curriculum

The CHS has been involved with a number of recent self and external reviews. An assessment of undergraduate education in CHS creates the opportunity to also examine existing curriculum and potential new programs in light of community and workforce needs and those available at benchmark institutions. In that spirit, an in-depth examination of the curriculum of undergraduate programs (particularly those not associated with an accrediting agency or professional association) is suggested. The aim of this recommendation is to ensure or reaffirm an articulated vision, mission, program goals, student learning outcomes, and curriculum mapping to ensure coherent conceptualization and continued relevance of coursework for pre-professional preparation and each degree and program purpose, and address any duplication or overlap among programs. An end goal would be to articulate a conceptualization for each program and a cogent narrative that ties courses and assignments to the Student Learning Outcomes and program goals and purpose.

Such efforts would best be supported if each program has an established curriculum change/approval and review process in place that is democratic, inclusive, known to all faculty and implemented with accountability, as such procedures could assist with encouraging the input of all and open discourse.

Additional recommendations include:

- Explore opportunities to connect students of all (or some) CHS undergraduate programs through course offerings that have shared relevance (e.g., focused on professionalism, general healthcare knowledge, foundational courses, interprofessional education).

- Explore opportunities for curriculum/program development that could assist exploratory students or those in transition to progress towards a degree with minimal lost time and/or credit (e.g., HHS general track, development of first year course requirements shared across programs).

- Continue discussion/development of honors pathway with faculty and professional staff.

Organizational Structure

Some of the information shared in this report may suggest the need for discussion about organizational structure, leadership, and other such elements. The following are some recommendations to address this need:

- Explore possible changes in alignment to address silos among programs and between programs and administrative offices and OSA to streamline internal processes, increase communication, enhance faculty awareness of CHS programs and initiatives, identify opportunities for collaboration, track initiatives to look for synergies and potential duplications, and encourage efficient use of resources and support of faculty and staff.

- Examine current structure within CHS Departments and Divisions to make recommendations for modifications or changes to enhance efficiency and clarify roles and responsibilities.

- Examine the roles and functions of various offices/administrative positions within the CHS to minimize role confusion within the CHS and its programs noted in this review, including those of the Office of Student Affairs, Office of Associate Dean of Faculty and Academic Affairs, Chairs, Division Directors, faculty vs. professional staff in CHS and within programs. Review and confirm how Director of Undergraduate (DUS) functions are systematically and consistently carried out for each program and student issues addressed and resolved.

Sample Models for Undergraduate Program Alignment

Organizational model prototypes were reviewed for goodness of fit in the context of CHS. Organizational options are presented on a continuum of no change (Option 1) to most change (Option 5) required. These models do not represent all possibilities, rather the potential models serve as anchors along the continuum. Three primary elements vary within them: (1) Extent to which programs are integrated**,** (2) Extent to which faculty are integrated, and (3) Way in which UG students identify with CHS.

Each model's configuration has implications for the type and role of leadership, methods for facilitation of communication and collaboration among UGE entities, leadership hierarchy, and other elements.

Sample Models for Undergraduate Program Structure

	Option 1	Option 2	Option 3	Option 4	Option 5
Description	The structure for all undergraduate programs remain as presently organized. Students designated as pre-professional or exploratory are primarily connected with OSA and not officially part of an academic program	An Undergraduate Education (UGE) Unit with faculty leadership is created for all CHS exploratory and pre-professional students, thus providing them with a unit affiliation. All programs remain as presently organized; OSA continues to be integral supports to these students.	The newly created UGE Unit includes all exploratory and pre-professional students and HSER programs, (HHS could have a generalist option), MLS and CSD (UG program) have dotted line relationships to UG Unit.	The newly created UGE Unit includes all exploratory and pre-professional students and HSER programs and the MLS program. (HHS could have a generalist option), CSD (UG program) has dotted line relationship to UG Unit.	The newly created UGE unit includes exploratory and pre-professional students and integrates all undergraduate CHS programs. All CSD faculty remain connected to the graduate program with TBD primary and secondary assignments.
Notes	*This option does not require a change in structure or faculty or staff assignments. It does require a mechanism (process or position) to facilitate communication and collaboration across separate undergraduate entities.*	*All pre-professional and exploratory students part of UGE unit that has a faculty administrator but faculty primary appointments remain as they currently are- no assigned faculty, to unit but appts such as adjunct, part-time, joint. Communication and collaboration among separate entities required.*	*Pre-professional and exploratory students are assigned to the UG Unit. HSER and its faculty are integrated into the Unit. CSD and MLS programs are connected to Unit via dotted line; primary faculty appts remaining as they are. Communication and collaboration among separate entities required.*	*Pre-professional and exploratory students are in the UGE Unit; HSER, MLS, and their faculty are also integrated into the unit. CSD program is connected to the UGE Unit by dotted line with faculty primary appts in CSD. Communication and collaboration among separate entities required.*	*This option integrates all pre-professional and exploratory students and all UG programs. Faculty primary appointments are with the UGE Unit with the exception of CSD, where primary appointments may remain in CSD due to graduate program responsibilities.*

No change **Most change**

Strengths and Limitations of Model Options

Option 1

Strengths: This model is the least disruptive to the functioning of CHS as it maintains the status quo. It is the option that would likely be able to be implemented most quickly as it does not require any organizational realignment. Rather, the option would rely upon establishing a process or position through which communication and collaboration around undergraduate education can be enhanced and better coordinated across programs. Attention to increased collaboration and the clarification of roles and responsibilities of faculty, faculty administrators, and professional staff may improve the efficiency and effectiveness of faculty and staff and service delivery in Option 1. Some recommendations are included in this report that could assist with those improvements.

Limitations and Points of Discussion: Maintaining the status quo by keeping the current model in place limits disruption within CHS and in its functioning but it does not create the opportunity for significant change, including many of those described in this document or recommended in other external review reports/responses. Faculty and professional staff are deeply committed to their programs and students, which—although a strength—may make it difficult to shift to a concept of undergraduate education at the College level through only facilitative support.

Option 2

Strengths: This option clarifies the place of exploratory and pre-professional students in the CHS as they will have a home within the College as part of an entity with faculty leadership. Integrating all pre-professional students in one unit could create opportunities for major/career exploration for undecided students and major/career confirmation for pre-professional students through programming and services coordinated at the College level. This could assist in guarding against duplicative efforts and bolstering student attendance at co- and extracurricular events, thus reducing the burden on faculty while increasing opportunities for them to engage with exploratory and pre-professional students from all programs so that they can learn about CHS educational opportunities and possible careers.

Limitations and Points of Discussion: This option would place students in a unit with no assigned faculty other than the faculty leader. Adjunct, part-time, secondary, etc. would be possible, but no primary assignments. This option is different from Option 1 in that it provides students with an affiliation within a faculty-led unit in CHS, but it does not correct the lack of faculty assignment and its potential implications. The absence of faculty assignment to this unit may limit how undergraduate education can be reorganized from a structural standpoint (e.g., department, division, etc.) as professional staff would be the only personnel with primary assignment.

Option 3

Strengths: With this option, exploratory and pre-professional students will have an academic home that includes faculty assigned to the UGE unit (whether it be a department, division, or another entity) as HHS and CLM programs would be relocated within this unit. This option would allow for a smooth transition into the HHS (particularly if a Generalist Track is created), support broad major/career exploration within the CHS, and create the ability to develop an approach within the CHS whereby pre-professional students can engage in major confirmation and career exploration that includes choices

beyond the major declared as a lower division student. This creates opportunities for the development of co-curricular activities as a unified entity that could involve both faculty and professional staff. The dual commitment of CSD to both undergraduate and graduate education is recognized in that the program/faculty/professional staff are connected to the unit via a dotted line (from the CSD BHS to the UG unit) yet maintain their connection with their accredited MS program. Faculty and resources currently shared in CSD between UG and G programs would remain intact and the pipeline from UG to G programs would be retained-- CSD pre and full major students likely would identify primarily with the CSD program vs. the UG Unit. Housing the majority of UG programs under a common UG umbrella would provide a structure to support communication and collaboration efforts among CHS UG programs. MLS is not integrated in the UGE Unit, and like CSD, connected via dotted line. This allows for the current level of autonomy to continue. Option 3 increases the opportunities for interprofessional activities compared to Options 1 and 2. It is likely that Option 3 would have some implications for the administrative hierarchy as the existing alignment (division, departments) and administrative positions (associate dean, chairs, directors) would likely be examined in light of this change due to the reduction in number of programs housed under clinical sciences.

Limitations and Points of Discussion: Although Option 3 unites programs that share an undergraduate focus (with CSD and MLS doing so via a dotted line), the CLM program may not be a natural fit in this arrangement. However, its inclusion would be necessary because of resources, faculty, and professional staff shared with HHS. The CLM Track A is the greatest outlier and its inclusion would require additional planning, since those students enter CLM with earned Associate degrees. There is a current examination of the HHS and CLM connection and curricula underway within the department (that is also supported by recommendations in this document), which may have some bearing on this limitation. The connection (dotted line relationship) between the CSD undergraduate program and the UG unit would need to be clearly delineated and communication/collaborative processes created with intentionality. MLS is also set apart from the UGE Unit and connected with a dotted line. This arrangement paves the way for future development of a graduate program without an additional alignment change, but it also could make the MLS program vulnerable. With fewer programs in the HSER Unit, MLS is very small to constitute its own department. The implications and ability to remain as such would need to be discussed with the Associate Provost of Faculty Advancement and the Senate. It likely would need to have a sufficient number of faculty to constitute a department or be modified in another way that is more suited to program size if Option 3 was pursued.

Option 4

Strengths: This option shifts to the structure described in Option 3, but here the MLS program is integrated into the UGE Unit—only the CSD program would be connected via a dotted line. This allows for exploratory and pre-professional students to have an academic home that includes faculty assigned to the UGE unit (whether it be a department, division, or another entity) as the undergraduate programs to which they are assigned would be relocated within this unit. This option would allow for a smooth transition into the HHS (particularly if a Generalist Track is created), support broad major/career exploration within the CHS, and create the ability to develop an approach within the CHS whereby pre-professional students can engage in major confirmation and career exploration that includes choices beyond the major declared as a lower division student. This creates opportunities for the development of co-curricular activities as a unified entity that could involve both faculty and professional staff. The

dual commitment of CSD to both undergraduate and graduate education is recognized in that the program/faculty/professional staff are connected to the unit via a dotted line (from the CSD BHS to the UG unit) yet maintain their connection with their accredited MS program. Faculty and resources currently shared in CSD between UG and G programs would remain intact and the pipeline from UG to G programs would be retained-- CSD full major students (and possibly pre) likely would identify primarily with the CSD program vs. the UG Unit. Housing the majority of UG programs under a common UG umbrella would provide a structure to support communication and collaboration efforts among CHS UG programs. This option may more easily support the development of interprofessional opportunities compared to Options 1 and 2. It is likely that Option 4 would have some implications for the administrative hierarchy as the existing structure (division, departments) and administrative positions (associate dean, chairs, directors) could be examined in light of this change due to the reduction of programs housed under clinical sciences. Since HSER is part of UGE Unit, the inclusion of MLS provides the program with an academic home, as it may not be able to stand alone once HSER is reduced.

Limitations and Points of Discussion: Although Option 4 unites programs that share an undergraduate focus (with CSD doing so via a dotted line), the CLM program may not be a natural fit in this arrangement. However, its inclusion would be necessary because of resources, faculty, and professional staff shared with HHS. The CLM Track A is the greatest outlier and its inclusion would require additional planning, since those students enter CLM with earned Associate degrees. There is a current examination of the HHS and CLM connection and curricula underway within the department (that is also supported by recommendations in this document), which may have some bearing on this limitation. The connection (dotted line relationship) between CSD undergraduate program and the UG unit would need to be clearly delineated and communication/collaborative processes created with intentionality. Should MLS develop a graduate program, its suggested place in this option would need to be revisited and perhaps reshaped to more closely resemble that of CSD (as described in Option 3) with caution, as it would need to have a sufficient number of faculty to constitute a department or be modified in another way that is more suited to program size.

Option 5

Strengths: With all undergraduate programs and exploratory students integrated within the UG unit, communication and interactions among the programs and service/support units may be streamlined and enhanced. Students would experience an academic home that would remain the same following acceptance into major status within these UG programs and would also be afforded exploratory, major/career confirmation, and professional development experiences as a College level cohort. Such a structure could support development of a more common application process, create ease for students to transition to new majors or major declaration, develop support for shared needs at the College level, and create the opportunity to delineate faculty and professional staff roles across all programs and in relation to UG functions and needs, thus potentially improving collaboration and efficiency of service delivery. Similar to Option 4, this option may more easily support the development of interprofessional opportunities compared to Options 1 and 2. Should MLS decide to create a graduate program, within Option 5 they would likely undergo an enhancement or shift while remaining in the UG Unit, potentially minimizing disruption, depending on the plan. As mentioned in Options 3 and 4, Option 5 would also carry with it potential implications for the current organizational structure in terms of designation (department, division) and administrative positions and roles.

Limitations: The CSD undergraduate and graduate program would structurally be divided-- in essence, shifting the tie between the two programs within CSD to a dotted line relationship, thus creating the need to thoughtfully address faculty appointments, resource sharing, and preservation of current UG to G program pipeline of students. Currently, CSD faculty are not divided according to UG and G programs and are collectively involved in supporting undergraduate majors and graduate students. There is also a seamless progression of student experience and faculty role that would need protection in this arrangement. How CSD faculty appointments are made (e.g., to which program/unit primary vs. secondary appointments would be assigned) would need to be resolved in a way that fits with the new UG Unit and also graduate program accreditation requirements. Opportunities for MLS to create graduate degree options would likely be limited without additional re-alignment. This option does constitute the highest degree of change and reconfiguring of those placed on the change continuum.

Additional Considerations

As previously stated, in addition to considerations of programs and faculty, there are implications for various elements of organizational structure for each model. For example, the Office of Academic and Faculty Affairs and the Office of Student Affairs may modify their processes, functions, etc. in order to integrate with undergraduate unit and/or programs or undergraduate programs may modify their processes to better align with other undergraduate programs. It is recommended that discussions concerning curricula, program and organization alignment, and associated elements proceed in a way that supports and employs the strengths and expertise of the faculty and professional staff, and teams affiliated with these areas.

Appendix A
Summary of Santa Fe Benchmark Review

Note: Comments of special interest are highlighted in yellow

University of Pittsburg- Health Sciences- School of Health and Rehabilitation Sciences (http://www.health.pitt.edu/**) -**and several other schools at UP house the degrees offered in UK's CHS**.** The School of Health and Rehabilitation Sciences has a large, self-sufficient structure that emulates UK's overall administrative and support infrastructure. Faculty administrative structure consists of chairs- a few scattered undergraduate programs. This benchmark provides an example of offerings of support and structure at the College/School parallel to those available at the University level.

University of Alabama at Birmingham- Health Professions (http://www.uab.edu/shp/home/): Undergraduate Degrees offered include the BS in Health Care Management to MS in Occupational Therapy Fast Track, BS in Biomedical Sciences; BS in Health Care Management (http://www.uab.edu/shp/hsa/undergraduate-programs/hcm); the BS in Health Care Management may have some relevance for the CLM program)

- Their Office of Student Recruitment, Engagement and Success appears to encompass all that we have been doing at UK at the University level for all of campus-- tutoring, degree tracking, advising, community outreach, first year experience, academic counseling, career readiness- microcosm of greater university.

- In terms of degrees and curriculum, they offer a General Health Studies degree that may be of interest that allows for integration of material across the curriculum and allows for tailoring of its requirement according to student interests (appears similar to UK A&S Bachelor of Liberal Studies in some ways). Information available at: https://www.ua.edu/academics/majors/generalhealthstudies

- They have a pre-health major and a first year experience course in the fall term for students. (Interesting example—the psychology major has pre-professional concentrations students can declare: https://catalog.ua.edu/undergraduate/arts-sciences/psychology/bs/)

- This University's counterpart had offered a HRP 101- "Experiencing a Transition" course (3 credits)- which could connect to an LLP. They also do pre-professional advising—it seems they have something comparable to how the CHS SAO is evolving.

  This benchmark might be a good site to investigate further regarding (1)an implicit curriculum and co-curricular standpoint and (2) the General Health Studies degree option.

University of Illinois at Chicago- College of Applied Health Sciences (http://ahs.uic.edu/): Offers undergraduate degrees in Health Information Management (F2F and online), Kinesiology, Nutrition (Coordinated Program), Nutrition Science, Rehabilitation Sciences

- Has pre-degree (pre-professional or major) clubs in OT and PT; pre-professional advising groups and info sessions for OT, PT and Nutrition, ideas that might be helpful to further discuss in CHS.

- They have a large student population with enrollment in Fall 2012 of: Undergraduate: 700; Graduate: 858; Professional: 152: Total enrollment: 1710 – the 4th largest college at UIC
- Their student Affairs Office appears to serve the College centrally: Asst. Dean for Student Affairs, Associate Dean of Academic and Student Affairs, Director- Academic Support & Achievement Program, Assistant Dean, Academic Affairs & Administration, Director- Urban Health Program, Director of Clinical Education, Coordinator for Student Affairs (responsibility descriptions): http://ahs.uic.edu/currentstudents/

University of Texas Medical Branch- School of Health Professions (https://shp.utmb.edu/**):** only offers undergraduate degrees in Clinical Laboratory Science and Respiratory Care; Has student organizations affiliated with graduate degree and CLS and RC—along with student honor society organizations- did not see any organization specifically for undergraduates although there was a student ambassador organization.*This appears to be very different from CHS and not heavy on undergraduate emphasis.*

Medical University of South Carolina: College of Health Professions (https://www.musc.edu/chp**):** information available in a 2015 annual report on line: http://academicdepartments.musc.edu/chp/about/annual-report/ : they have two undergraduate programs- BS in Cardiovascular Perfusion and BS in Healthcare Studies, which has two concentrations: Healthcare and Health Promotion. Students prepare to enter professional programs similar to our HHS. Students are expected to have an associate degree to be admitted to the major: http://academicdepartments.musc.edu/chp/bshs/about.htm

Temple University (https://cph.temple.edu/): **College of Public Health-**some CHS programs here- CSD (BA, MA, PhD), BA in Health Information Management; BS in Kinesiology; PT 3+3 Accelerated Pre-Baccalaureate, BSN, BS in Recreational Therapy, BSW, BS in Public Health.

- Temple's College of Public Health has a pre-health professions concentration in the Dept. of Kinesiology- students take courses in three areas: The University Gen Ed, the Kinesiology Core, and a professional application such as the Pre-Health Professions concentration- leads to a Bachelor of Science degree (may be constructed in some ways similar to UK A&S BLS degree): https://cph.temple.edu/kinesiology/programs-offered/undergraduate/kinesiology-bs/pre-health-professional . Advising centralized to the college but advisors appear to be assigned to programs.

University of North Carolina at Chapel Hill- Department of Allied Health (http://www.med.unc.edu/ahs**):** BS in Radiology; BS in Clinical Laboratory Sciences, Undergraduate Minor in Speech and Hearing—does not seem to be geared to the undergraduate experience.

University of Florida- College of Public Health and Health Sciences (http://phhp.ufl.edu/**):** Offers a Bachelor of Health Professions that houses two programs: Bachelor of Health Science and Communication Sciences & Disorders.

- Bachelor of Health Science majors choose from three tracks: General Health Science, Pre-Occupational Therapy, or Pre-Public Health and Bachelor of Public Health.

- They have a University Scholars program—which is a competitive award for undergraduates interested in doing research, which could be interesting to explore in relation to the CHS Undergraduate Research program;

- They have pre-professional students and selective admission

The Ohio State University- School of Health and Rehabilitation Sciences (http://medicine.osu.edu/hrs/Pages/index.aspx**):** Undergraduate Programs: AT, Health Information Management and Systems, Health Sciences, Medical Dietetics, MLS, Radiologic Sciences and Therapy, Respiratory Therapy: Admissions process looks similar to that in CHS.

- Has an Honors program- one based only on GPA and two others based on coursework and other work, which might be of interest in CHS given the plans to develop an honors program; Both academic and Career Advising offered through Office of Student Services.

- Has a pre-professional student handbook- applicable to pre-professional students in any of the HRS majors: http://medicine.osu.edu/hrs/current-ohio-state-students/student-handbooks/Documents/Pre%20Major%20handbook.pdf – this could be very helpful for exploratory majors in CHS.

  This benchmark could be helpful to future discussions.

University of Kansas: School of Health Professions in the College of Liberal Arts (http://www.kumc.edu/school-of-health-professions/academic-programs.html**):** Clinical Upper division admission- laboratory science, 2.70+ GPA; Health information management, 2.50+ GPA; Respiratory care, 2.50+ GPA

- They actively recruit biology majors for graduate degrees in the School of HP; they have a health profession mixer for biology students—seems like a lot of their approach occurs because of being housed in the College of Liberal Arts and working cooperatively within the college.

University of Missouri- School of Health Professions (https://healthprofessions.missouri.edu/**)** Bachelor of Health Sciences is located here with these four emphasis areas: health and wellness services, leadership and policy (similar to CHS CLM?), pre-professional, and rehabilitation science. Also has undergraduate degrees in AT, BHS in Clinical Laboratory Sciences, Bachelors in CSD—*appears from a program standpoint to house the undergraduate programs in CHS.* Have advising, in-house career services, and a mentoring program through which they connect their students with alumni.

- Student Services addresses areas of Recruitment, Scholarships, Admissions, Advising, Retention, Graduation, and Career and Professional Development. Also have student organizations.

- Appears to be a site that could be helpful to investigate further as it seems to be comparable to CHS from a program standpoint.

Indiana University- School of Health and Rehabilitation Sciences (https://shrs.iupui.edu/**):** Department of Health Sciences: BS in Health Sciences with tracks: Gerontology Track, Global Health & Rehabilitation Studies Track, Rehabilitation & Disability (R&D) Studies Track, Pre-professional Track, General. They offer a number of certificates and pre-professional preparation coursework built into the degree map. It appears there is a general curriculum framework that allows for options: https://shrs.iupui.edu/doc/health-sciences/BSHS%20POS_Final_5-31-16%20FORM.PDF

- This benchmark might be interesting to contact to ask about the pre-professional track and especially the general (generalist degree or something like an exploratory/undecided general studies) as part of planning in CHS to meet needs of healthcare exploratory students.

  Contact: Brent Arnold, chair and professor: 317-278-9653
  brelarno@iu.edu

  Kathy Weaver, program director and senior lecturer: Phone: 317-278-0003
  kaweaver@iupui.edu

- They have a faculty member serving as a Director of Career Services within the department.

  Looks like this would be an interesting benchmark with which to follow-up

Purdue University- School of Health Sciences in the College of Health and Human Sciences (https://www.purdue.edu/hhs/hsci/**):** pre-professional advising is housed in the Center for Career Opportunities at the University level- they do not use this term referring to pre-undergraduate full major students but rather those applying to the professional schools (a US/SCC function at UK). Undergraduate Majors: Health Sciences Pre-professional (Pre- PA. PH, PT, Optometry, OT, Med, Dent, Chiro), MLS, Environmental HS, Occupational HS, Radiology HS. They offer 4+1 and 3+2 programs: http://www.purdue.edu/hhs/hsci/students/undergraduate/majors/accelerated.html

- For assessment of learning and pedagogy: Validation of active learning in health professions scale: http://docs.lib.purdue.edu/ijpbl/vol9/iss1/10/ . This might be of interest in relation to pedagogy and evaluation of efforts to enhance active learning and high impact practice.

- Interesting programming and co-curricular/professional activities: http://www.purdue.edu/purdue/search.html?q=health%20professions

- Co-curricular- student organizations (pre and professional), research, study abroad, internships

  Student orgs:
  http://www.purdue.edu/hhs/hsci/students/undergraduate/beyond_the_classroom/student_org.html

  This appears to be a worthwhile site to look into further. There are some interesting options regarding degrees, assessment of learning, and co-curricular activities.

Appendix B
Benchmarking for Undergraduate and Graduate Programs

Selected from Top 10 Physical Therapy Programs

Questions:

- What does the structure in the colleges housing these high caliber PT programs look like?
- Do Departments offer a single degree?
- Is PT identified as a department, program, or something else?
- What does UG programming look like in these institutions.

General: Programs are described as a Department of Physical Therapy; Department of Physical Therapy and ….; Division of Physical Therapy; and Program in Physical Therapy

1. **University of Delaware, Department of Physical Therapy**
   Gregory E. Hicks, PT, PhD, Chair
   Associate Professor

   Administrative Structure*:* The Department of Physical Therapy is located in the College of Health Sciences. The CHS has 5 Departments and one School: Behavioral Health & Nutrition, Kinesiology & Applied Physiology, Medical Laboratory Sciences, School of Nursing, Physical Therapy, Communication Sciences & Disorders (unclear if the new CSD is a Dept or program). Each Department/School offers more than 1 degree. There are over 2.5K UG in 16 programs and about 500 Grad students in 13 programs. There are 128 faculty and 26 postdocs in the college.

   The Department offers the DPT program. The DPT program has a separate director. **PT** seems to be connected to an interdisciplinary PhD in biomechanics and movement sciences, and clinical fellowship programs for practicing physical therapists in sports, orthopedic, and geriatric physical therapy. The Department of Physical Therapy also offers qualifying DPT students the option to earn a Master of Science (MS) in Anatomy and Clinical Health Science. The Dept runs two physical therapy clinics that provide rehabilitation services to the community while serving as educational settings for students, fellows, and practicing clinicians. An unusual feature is that the curriculum is **2.5 years.** The program admits 60 per class. The program begins in summer (late June).

   Undergraduate Education: There is an Office of Undergraduate Student Services with an Assistant Dean, Academic Program Manager, and Administrative Assistant. Although it is not clear, it appears that the USS simply provides advising assistance to faculty and department advisors; I see no evidence of undergraduate advisors in the USS unless the Manager serves in that capacity. Students are also referred to central advising at the Univ. There is an advising handbook https://docs.google.com/viewer?a=v&pid=sites&srcid=dWRlbC5lZHV8dXNzfGd4OjE0MjgxZjA2ZjkwNWY1ZjY

   The MLS Dept offers two UG degrees. There are over 2.5K UG in 16 programs. Undergraduate degrees are offered in every department/school. There is no degree that appears similar to the HHS or CLM degrees. The new CSD degree appears to be MS only.

2. **University of Pittsburgh, Department of Physical Therapy**
   James J. Irgang, PT, PhD, ATC, FAPTA
   Professor and Chair

   Administrative Structure*:* The PT Department is one of 6 Departments in the School of Health and Rehabilitation Sciences: CSD, Health Info Mgt; OT, PT, Rehabilitation Science & Technology; Sports Medicine & Nutrition. The program has 174 DPT students and 42 MS students. There are 27 full-time faculty. The School is one of six schools of the Health Sciences at the University of Pittsburgh, as well as the University of Pittsburgh Medical Center and its Centers for Rehab Services. The various degree programs, including PA, CSD MS, OT, etc., are located within the Departments.

   Undergraduate Degree: The UG rehab sci program is an upper level program available only to Jr and Sr students who complete 60 pre-req hours. The BA in CSD is not rolled into the UG Rehab Sci degree program, nor is Emergency Medicine. There are other UG degree programs outside of this program in addition to CSD and Emergency Med.

4. **Washington University in St. Louis, Program in Physical Therapy**
   Gammon M. Earhart, PT, PhD
   Professor and Director

   Administrative Structure: The 8-semester, PT Program is located in the School of Medicine. The PT program enrolls 241 students. The program offers a DPT and a PhD in Movement Science. It also offers fellowships and residency programs. It has a PT clinic, including a Running Clinic w/ 3 therapists, a Rehabilitation of the Performing Artist Clinic w/ 2 PTs, and others (Lymphedema, Musculoskeletal Rehab, Pre & post Surgical Rehab, etc.). The School has many academic departments, programs, and divisions. There appears to be no PA program at the University. Health Sciences programs are located in the School of Medicine – CSD, OT, AuD, PT, Deaf Educ,

   Undergraduate Education: I found no UG degree programs in the School.

5 . **University of Iowa, Dept of Physical Therapy and Rehab Sci**
   Richard Shields, PT, PhD
   Chair and Department Executive Officer

   Administrative Structure: The Dept of PT and RS is located in the Carver College of Medicine. The health sciences campus includes colleges of dentistry, nursing, Pharm, and Public Health. There is a VA nearby. The DPT and MA/PhD degree in Rehabilitation Science programs are located in the Department. The program admits 40 students per year; There appear to be 12 core faculty along with secondary and adjunct faculty. Students may enroll in a combined DPT/PhD program. The online photo suggests that there may be about 25 PhD students.

   Undergraduate Education: The Carver College offers BS degrees in CLS, Rad Sci, and Nuclear Med Tech. There is an Office of Student Affairs and Curriculum with a stated emphasis on medical students. It has a staff of 35 in 10 units designed to address an aspect of student life.
   The OSA website has a site for the MD Program and the PA Program only.

6. **Duke University, Doctor of Physical Therapy Program**
   Michel Landry, Chief, PT Division

Chad Cook, Program Director, DPT Program
J. Kyle Covington, Director of Assessment and Evaluation

Administrative Structure: The DPT program is in the Division of Physical Therapy in the Department of Orthopaedic Surgery in the School of Medicine. It is a 3-year program; 122 credits, with more than 200 students, total. The program has a Division Chief and Program Director. It also has a vice chief of Education and of Student & Faculty Development. The program offers a Faculty Development Residency to develop PT educators. The program uses team-based learning and STEPs (Student Team Experience in Practice) in its curriculum.

The School has 22 clinical and basic science departments. Duke has a College of Arts and Sciences and at least 6 schools, including the School of Medicine. DPT, PA, and clinical leadership are in this School. The School has an Office of Student Services that appears quite expansive (https://medschool.duke.edu/education/student-services).

Undergraduate Education: I did not find info about a student affairs office, per se, in the School. Duke has a Division of Student Affairs.

Selected from Top 10 Speech-Language Pathology Programs

Questions:

- What does the structure in the colleges housing these high caliber programs look like?
- Do Departments offer a single degree?
- Is SLP identified as a department, program, or something else?
- What does UG programming look like in these institutions.

1. University of Iowa, Department of Communication Sciences and Disorders

Administrative Structure: In addition to its #1 ranking in SLP, UI is ranked #2 in Audiology (also #2 in Physician Assistant, and #6 in Physical Therapy). UI is organized into 11 colleges. These include PH, Nursing, Dentistry, Pharmacy, and Medicine. The Department of CSD is in the College of Liberal Arts and Sciences. The Dept offers an MA in SLP, AuD in Audiology, and a PhD. The undergraduate program (BA in Speech and Hearing Science) enrolls 230 students. In 2015, there were 153 apps for 25 slots in the master's program and 61 apps for 10 slots in the audiology program.
The College has a multitude of Depts and Divisions. There is an Exec Assoc Dean and Assoc Dean for Faculty & Diversity; Assoc Dean for Research & Infrastructure; Assoc Dean for UG Programs & Curriculum; and Assoc Dean for Grad and Online Education. https://clas.uiowa.edu/students.

Undergraduate Education: Students may receive support at the Office of Academic Programs and Student Development. An UG Handbook is available on the web. **!st yr students are advised by the University Academic Advising Ctr; as a sophomore, students are assigned to an in-department advisor. This advisor is a faculty representative to the student for academic planning but also to assist with other related issues**
https://clas.uiowa.edu/sites/clas.uiowa.edu.comsci/files/Undergrad%20Handbook-rev2015.pdf. In addition to an UG Major, there is an UG minor in CSD. (NOTE: I don't see evidence of selective admissions)

2. Vanderbilt University, Department of Hearing and Speech Sciences

Administrative Structure: The Hearing and Speech Sciences Dept offers an AuD, Education of the Deaf master's, and SLP MS. The MS is 20 – 24 months, depending on academic background. The program culminates in a 10-week clinical or research externship. It appears that the AuD has about 10 students per class.

Vandy is a private institution under a Chancellor system. Smaller than some of the public institutions, Vandy enrolls 6.5K UG and about 5.3 Grad/Prof students. Vandy comprises 10 colleges and schools. A highly ranked medical center is there. There are a variety of Associate Deans and administrators.

Undergraduate Education: No information is found re: undergraduate degrees. There is no UG CSD at Vandy and no UG in the health sciences.

3. Purdue University, Department of Speech, Language & Hearing Sciences

Administrative Structure*:* Purdue is organized into colleges and schools. The College of Health and Human Sciences, launched in 2010, involved realignment of nine academic units into the new college. There are 219 faculty (174 Tenured/Tenure Track) and 4,247 students (3,772 UG; 475 Grad). The College purports to have more than 30 majors and now encompasses the following units:

- Consumer Science Dept
- Health & Kinesiology (AT UG; UG public health)
- School of Health Sciences (Health Sciences Pre-Professional (similar to HHS; also UG MLS and others)
- School of Hospitality and Tourism Management (offers a single UG degree, I believe)
- Human Development and Family Studies (includes early childhood educ and exceptional needs thru 3rd grade; other degrees as well)
- School of Nursing (BS, NP, PhD – new program?)
- Nutrition Science (dietetics; double majors; variety of degrees)
- Psychological Sciences – UG and Grad
- Public Health Program (Graduate)
- Speech, Language, and Hearing Sciences (CSD at UG, Grad levels)

NOTE: These units include those that were in the UK College of Human and Environmental Sciences before it was disbanded and moved into Ag (Hospitality…., Family Studies…, Nutrition). There is a 3 + 2 program allowing students to complete BS and MBA in 5 years. Requires 3.7 GPR at beginning of Jr year; application required. The College has a Dean, Sr Assoc Dean for Academic Affairs and Administration; Associate Dean for International Program; Associate Dean for Research & Grad Programs.

The Dept is led by a 'Head." It offers a BS in Sp, Lang, and Hg Sci; MS – SLP, PhD, and AuD. It also offers dual track degree programs (clinical MS-SLP or AuD + PhD). **Might be a way we want to market the RHB and CSDMS/DPT programs?** This option is very explicit on the program websites and in the application/admissions section. Students apply for dual track degrees. Also, the importance of identifying a research-supervisor for the PhD is explicitly stated. The Dept includes Audiology and a PhD.

Undergraduate Education: There is a Director of Student Services. "There are professional staff at the college level and in all nine academic units who specialize in academic advising, career development diversity initiatives, honors, recruitment, scholarships, and student success programs." http://www.purdue.edu/hhs/student_services/index.html. On the website, undergraduate majors are listed together on their own wepage with links to the programs. http://www.purdue.edu/hhs/future/future_majors.html.

The UG CSD degree is integrated in the Dept. The undergraduate AT is presently in Health & Kinesiology . The Heath Sciences Pre-professional program is in the School of Health Sciences. It offers pre-professional *concentrations* in chiropractic, dentistry, medicine, OT, Optometry, PT, PA, and Public Health. **The first 2 years is similar across disciplines;** "outstanding feature…is that course requirements for entry into professional school are incorporated in the plans of study, resulting in no extra coursework for our UG." (Note: The HSCI courses I located include: Intro to the Health Sci Professions (2 cr) – (HHS 101); Essentials of Environmental, Occupational, and Radioogical Health Sciences (3 cr); Principles of Public Health Science (3 cr); Into to Medical Terminology (2); Occupational Safety and Ergonomics (3) – total is 13 credits; HHS has 30 credits)

It appears that there are a number of learning communities that RECOMMEND students to participate in the residential component; 2,000 students at PU participate. There are associated classes and the duration is half-semester to full year. These do not appear to be as structured as the IHRC or other UK LLPs. The College of Human and Health Science has 11 learning communities.

Appendix C

Structure of University of Kentucky Colleges; Website Review

Questions investigated in this review:

- What is the structure of academic units within the college?
- What is the central administrative structure?

Agriculture, Food and Environment (http://www.ca.uky.edu/)

- Academic Unit Structure. CAFÉ has the School of Human Environmental Sciences and 14 Departments. Departments are headed by Chairs; the HES has a Director and encompasses 4 Departments. Multiple majors are offered.
- Administration. The CAFÉ is a very large college headed by an Administrative Team including a number of Associate and Assistant Deans and Directors. There is an Associate Dean for Academic Programs (Grabau) and Assistant Dean for Academic Administration (Collins). There is a Center for Student Success (http://students.ca.uky.edu) with several advisors and other employees; it seems to be headed by Dean Grabau. Most UG academic programs have an academic coordinator and a DUS. The Student Success website notes several of the services provided (e.g., career services - mentoring; mock interviews; personal statement development; major and career exploration; EA planning, internship and career search coaching, etc. There is also a Center for Excellence in Teaching and Learning (CETL) (http://www.uky.edu/Ag/CLD/CETL/) headed by Tracy Kitchel, Assist Prof, providing a variety of professional development and support services for faculty. The website is not up to date, so I don't know if the CETL is still functioning.

Business and Economics (http://gatton.uky.edu/)

- Academic Unit Structure. There are 5 departments headed by Dept Chairs. The college offers 5 undergraduate majors and 3 minors. Graduate degrees are also offered.
- Administration. In addition to the Dean, there is an Executive Associate Dean; Associate Deans for Undergraduate Affairs, Graduate Programs and Outreach, and International Affairs. There are Directors of Development & Advancement and of Marketing & Communications. The webpages for students lists the UG Resource Center, Career Services, Student Success, Professional Development, and Campus Resources. These listings include both college-specific and university-wide services. The College touts is Business Enterprise LLP; Honors Pathways; and International Education. *All students are admitted as pre-majors with support provided centrally (http://gatton.uky.edu/programs/undergraduate/).*

Communication and Information (http://ci.uky.edu/ci/)

- Academic Unit Structure. The units include the Department of Communication and Department of Integrated Strategic Communication (seems to be a new Dept); School of Journalism and Media and School of Information Science; and Graduate Program in Communication. The Communication Department has a Chair and a Director UG Studies; Schools have Directors. The College offers at least 5 undergraduate degrees and several graduate degree programs along with 4 minors and 2 undergraduate certificates.
- Administration. There is an Associate Dean for Research, Budget Officer, Director of Development; Senior Associate Dean of Student Success & Administrative Affairs; Director, iNET Academics; Director and Associate Director of Student Affairs & Academic Advisors, Communications Director & College Media Officer; Associate Dean for Graduate Programs in Communication; Director of Recruitment and Retention; Chief of Staff; Associate Dean of UG Affairs. There is no organization chart available, so it is not possible to see how these positions inter-relate. Information for students is found at http://ci.uky.edu/ci/students and at other webpages by topic.

Dentistry (https://dentistry.uky.edu/)

- Academic Unit Structure. The two departments are 1) Oral Health Practice and 2) Oral Health Science. Each is led by a Chair. The departments have several Divisions led by a Division Chief (https://dentistry.uky.edu/departments-and-divisions). Degree programs include a DMD with several postdoc programs and advanced training options and an MS in Orofacial Pain, Orthodontics, and Periodontics.
- Administration. There is an Office of Finance and Administration. I could find no additional info about administrative offices on the website.

Design (http://design.uky.edu/)

- Academic Unit Structure. The college has 2 schools (Architecture, Interiors) and a Historic Preservation program. These are led by Directors. It offers an UG and MS degree in Architecture and in Interiors, and a graduate degree in Historic Preservation.
- Administration. As best I can tell, the College has an Associate Dean for Administration and an Associate Dean of Research. There is a Director and Assistant Director of Student Services.

Education (https://education.uky.edu/)

- Academic Unit Structure. The college has 7 departments headed by Dept chairs; each dept has programming and offers degrees within the disciplines. The college offers severs BA and BS teaching and non-teaching degrees along with graduate degrees.
- Administration. The College has an Associate Dean for UG Advising and Student Success; Sr Associate Dean for Academic Programs, Accreditation, and Planning; Sr Associate Dean for Research, Analytics, and Grad Student Success; Associate Dean for Clinical Preparation and Partnerships; Assistant Dean for Program Assessment; Chief Financial Officer and Administrative Coordinators/Assistants; an org chart is available. There is an office of Academic and Student Services (https://education.uky.edu/acadserv/) and Office of Undergraduate Advising and Student Success (https://education.uky.edu/adeanugadvss/). These offices provide academic advising re: the academic programs, info on scholarships and financial aid, addresses student concerns, manages the Dean's list, and guides students with the TEP and teacher certification requirements, and oversees clinical programs and student teaching.

Engineering (http://www.engr.uky.edu/)

- Academic Unit Structure. The college lists 8 departments on its website along with the program at Paducah. The Departments are headed by Dept chairs. There are 9 UG degree programs and a variety of graduate degree programs offered.
- Administration. There is an Interim Dean and Associate Deans for Research & Graduate Studies *and* for Administration and Academic Affairs. There are offices for advancement; business; career development & cooperative education; computing services; marketing & communications; research; student services.
    - Interesting: *Starting in Fall 2016, all College of Engineering freshmen began its First Year Engineering Program. This brand new initiative exposes these students to different engineering disciplines, exposes them to engineering classes from day one and enables them to make a more informed decision when they choose their engineering major later in the year.*

      All 1st year students are advised by the Freshmen advising team; after 2 semesters, advising responsibility is shifted to the student's major dept; there is a director for student services and freshman advising and 2 freshman advisors. From the sophomore year forward, advising is a collaboration between faculty and professional advisors within the major dept. There are DUS's in some programs; there are student affairs officers and academic advisors in the other programs. Eng uses the Curriculum Sheets on their website to inform students (http://www.engr.uky.edu/academics/fyp/).

Fine Arts (http://finearts.uky.edu/)

- Academic Unit Structure. The college has 2 Departments (Theatre and Dance; Arts Administration) and 2 Schools (Art & Visual Studies; Music). There are Department Chairs.; the Schools have Directors. Each Dept/School has a DUS. The College offers 9 UG degrees and several minors. Several graduate degrees are also offered.
- Administration. The College has Associate Deans who direct various programs/schools. They are not designated by role (e.g., Faculty Affairs, Academic Affairs, etc.). There is an office of UG Student Affairs with 7 individuals listed including: Director of Undergraduate Studies (3), Director of Recruitment (1) and various Directors/ Assistant Directors of Student Affairs (3). There is also an office of Graduate Student Affairs with 3 individuals assigned. There are also IT, IBU, Marketing & Communications, and Development, and the Dean's Office (Dean & Assoc Deans) (http://finearts.uky.edu/college-fine-arts/contact).

Nursing (http://www.uky.edu/nursing/)

- Academic Unit Structure. The CON has several UG degree programs: traditional BSN; 2nd degree BSN; MedVet-BSN; RN-BSN. There are also DNP and PhD programs.
- Administration. CON has an org chart!!! ☺ http://www.uky.edu/nursing/sites/www.uky.edu.nursing/files/CON%20Org%20Chart%203-30-16.pdf . There is an Associate Dean for Undergraduate Faculty Affairs (Burkhart); Associate Dean for Graduate Faculty Affairs (Lennie); and Executive Vice Dean of Academic Affairs & Partnerships (Howard) along with a variety of Assistant Deans and Directors. The overall organization is quite complex.
    - A Student Services office is found on the website along with info about how to apply; I could not find specific info for university students not yet admitted to one of the nursing programs. Info sessions and tours are found online; also application dates. Info about how to apply as a pre-nursing major is found at: http://www.uky.edu/nursing/admissions/how-apply/application-instructions-admission-traditional-bsn-program. The responsibilities of the student services office are found at: http://www.uky.edu/nursing/sites/www.uky.edu.nursing/files/FacHandbk-Student-Services-Responsibilities.pdf

Pharmacy (http://pharmacy.uky.edu/)

- Academic Unit Structure. The two departments are 1) Pharmaceutical Sciences and 2) Pharmacy Practice and Science. Each is led by a Chair.
    - The web has a Pre-Pharm section; there is a Pre-Pharm Advisor in the COP; also a pre-pharm listserv and club. There is a set of advising sessions: Preparing for Pharmacy School; Strengthen Your Pharmacy School Application; Scheduling and Advising. Students may also elect to meet with the pre-pharm advisor. http://pharmacy.uky.edu/pre-pharmacy/advising-sessions.
- Administration. COP has a Dean, Senior Associate Dean, Chief Financial Officer, Human Resources, and Administrative Operations Facilitator in the Dean's Office. There is a Centralized Business Office; Academic and Student Affairs (Student Success and Career Development included); Alumni & External Relations; Development; Office of Educational Advancement (separate from student affairs); Office of Research; and Information Technology & Facilities. A number of staff are found in some of these offices (http://pharmacy.uky.edu/contact-us).

    Within the Educ Adv Office, there is a Director of Education Technology (Jeff Cain) – separate from IT; Dir of Experiential Educ; Intro Pharm Practice Experience Coordinator; Academic Coordinator, Pedagogy Specialist; Experiential Educ Coordinator; Assessment personnel.

Public Health (http://www.uky.edu/publichealth/)

- Academic Unit Structure. CPH is divided into 6 Departments: Biostatistics; Epidemiology; Gerontology; Health, Behavior & Society; Health Management and Policy; Preventive Medicine and Environmental Health.
    - Bachelor's Program in Public Health (BPH). http://www.uky.edu/publichealth/academics/bachelors-program. Also,

http://www.uky.edu/registrar/sites/www.uky.edu.registrar/files/publichealth_2.pdf . *(Unsure about where it lies within the CPH).*

- There appear to be 3 MS and s PhD programs, and the DRPH.

- Administration. There are offices of: Academic & Faculty Affairs; Business Affairs; CPH Human Resources; CPH Post Grant Support; College Committees; Information Technology; and Student Affairs (http://www.uky.edu/publichealth/departments/administrative-units/student-affairs). Student affairs has a Director of Undergraduate Advising, Director of Student Success, Director of Admissions, and is headed by the Associate Dean of Academic and Student Affairs.

Social Work (https://socialwork.uky.edu/)

- Academic Unit Structure: College has one undergraduate program (BASW), one graduate program (MSW), and a PhD in social work.

- Administration: There is an Associate Dean of Academic and Student Affairs and an Associate Dean of Research, a Director of Research and Programs Operations, a Grants Officer, two part-time academic advisors, two IT supports/web designer, one instructional designer, a recruiter. Also in place is a Director of Undergraduate Studies, Director of Graduate Studies, and a Director of Field Education—these positions are required by the accreditor, Council on Social Work Education (CSWE), as is the advising support, director of graduate admissions, and field office support positions (2). There is a Director of Finance and 2 support positions and a records SAO II position to support all programs.

- Both the BASW and MSW are accredited by CSWE. PhD programs do not fall under the purview of CSWE.

Appendix D
Literature Review- Exploratory Students

Slowinski, P. T., & Hammock, W. K. (2003). Advising undeclared students, *NACADA Clearinghouse.* Available at: http://www.nacada.ksu.edu/Resources/Clearinghouse/View-Articles/Advising-Undeclared-Students.aspx

Reviews issues and topics important to cover when working with exploratory students—and recommends the use of exploratory in reference to this student group. Also shared are intervention components to assist students with major and career exploration and self-discovery.

Cate. P. (2010). The Targeted advising model for undecided students. Retrieved from *NACADA Clearinghouse of Academic Advising Resources*. Available at:
http://www.nacada.ksu.edu/Resources/Clearinghouse/View-Articles/Targeted-advising-model.aspx

Shares a targeted advising model that consists of three stages: precontemplation, deliberation, and action. The model is implemented using motivational interviewing. A description of the stages and associated tasks are provided. Authors also acknowledge that the rate that students move through the decision-making process varies and needs to be recognized in advising and planning efforts. They can benefit from organized planning, attention to their values, and assistance in developing a feasible and realistic plan—consistent with their exploratory pace and readiness.

Carnevale, A.P., Cheoh,R., & Stohl, (2009-2010 data). Hard times: All degrees are not created equal. Available at: https://cew.georgetown.edu/wp-content/uploads/2014/11/Unemployment.Final_.update1.pdf

This report examines unemployment rates and earning power of multiple clusters of degrees. Those with health content or health oriented were shown to have lower unemployment rates.

Menke, D. (2016, September). Weaving career advising into academic advising. *Academic Advising Today*, *39*(3). Available at: http://www.nacada.ksu.edu/Resources/Academic-Advising-Today/View-Articles/Weaving-Career-Advising-into-Academic-Advising.aspx.

Posited is that providing students with career advising can help with their persistence, retention, and graduation—goal setting, articulating a purpose, and gaining clarity on career direction can all assist with these efforts. Academic advisors can prepare to help students with career advising through becoming acquainted with the career development process, developing their knowledge of career-related services on campus, and weaving career advising into advising activities by employing advising techniques supportive of this such as appreciative inquiry and coaching.

Exploratory program examples

North Carolina State. Exploratory Program. Available at:
https://exploratorystudies.dasa.ncsu.edu/prospective-students/

North Carolina State has a nationally recognized model for assisting exploratory students. Elements of interest to CHS include the emphasis on the role of advising, offering of an orientation-exploration course for two semesters taught by advisors, an Exploratory Studies Village, which is a Living Learning Community. Exploratory students are required to live n the Village (unless they live in another LLP) and

have ready access to an Exploratory Advisor. Also offered is peer support and extra-curricular activities that are academically and career oriented and also help with building social connections and community.

Curry College. Exploratory Health Professions Program. Available at: https://www.curry.edu/programs-and-courses/undergraduate-programs/special-programs/ehp.html

Although a smaller school, this program provides an example of a multi-faceted program. Students are in an exploratory track dedicated to the health professions with the intent to identify and declare a major. There is a living learning community available for these exploratory students and they receive invitations to extra-curricular events that assist with exploration throughout the year.

University of South Florida. Exploratory Tracks. Available at: http://ugs.usf.edu/trac/exploratory%2Dcurriculum/ .

This University has an exploratory program that is set up in 5 tracks, including one that focuses on health and natural sciences. Gen ed requirements are interpreted to be compatible with focus of track when possible. A career exploration course is included in the first semester.

Arizona State University. Exploratory Health and Life Sciences. Available at: https://cisa.asu.edu/exploratory-health-and-life-sciences

Students interested in health but undecided can be in the exploratory health and life sciences track. Exploratory students take 3 courses that are sequenced: (1) Major and Career Exploration, (2) Choosing a Major, and (3) Career Direction for a Successful Future and Gen Ed requirements while deciding.

Appendix E
Literature Review: Pedagogy

Aditomo, A., Goodyear, P., Bliuc, A., & Ellis, R. A. (2013). Inquiry-based learning in higher education: principal forms, educational objectives, and disciplinary variations. *Studies In Higher Education*, *38*(9), 1239-1258.

Inquiry-based learning (IBL) was put forth by the Boyer Commission as the pedagogy that should be the norm at research universities. The article provides detail of types of IBL that could be helpful in thinking about or increasing the use of this pedagogy in CHS. Authors found that the IBL experiences share in one characteristic-they pose a question or problem. The authors describe problem-based learning, project-based learning and case based learning. This study examines the different methods through which IBL is delivered, its objectives, and looks to identify similarities and differences among methods. Presented is a description of the different types of IBL shared by the faculty sample drawn from 3 universities in Australia. Also presented is a heuristic that organizes the methods according to these quadrants: use-oriented (application), not use-oriented, content, and practice. Authors found that most of these activities shared a method of active learning and focused on a problem or question vs. content. Activities fell on a trajectory of research involvement (from mirroring the research process of academics to engaging in small pieces of the process). They found that IBL had been incorporated into small and larger classes, with the median class size being about 50. Concern has been expressed that many of the IBL activities do not translate into a full research activity, which the authors found to be true. At times, they also do not create new knowledge—but the students are engaged in research-like activities, can examine concepts from a theoretical basis, and otherwise analyze and evaluate material—still developing valuable skills.

Danker, B. (2015). Using Flipped Classroom Approach to Explore Deep Learning in Large Classrooms. *IAFOR Journal Of Education*, *3*(1), 171-186.

The authors' study demonstrated that the use of flipped classroom (having students watch recorded lecture or content material on-line and complete homework or other exercises in class) was beneficial to students' learning and changed the learning environment in the large classroom to one of active learning. While in class they participated in inquiry-based learning, peer-learning, and other active techniques that allowed them to deepen their understanding of and apply the content and concepts of the lectures. The faculty were present during class time to provide assistance. Data showed this was effective in helping students understand material, engaging them, and sparking their curiosity.

Dannefer, E. F., & Henson, L. C. (2007). The portfolio approach to competency-based assessment at the Cleveland Clinic Lerner College of Medicine. *Academic Medicine: Journal Of The Association Of American Medical Colleges*, *82*(5), 493-502.

This article provides a model for outcome (competency)-based education and its assessment using an electronic portfolio that allows for artifacts representing different areas of competency to be collected throughout the educational career of the student. Portfolios can be presented as evidence of mastery of competencies and also contain a reflective component.

Doucet S, Buchanan J, Cole T, & McCoy C. (2013). A team approach to an undergraduate interprofessional communication course. *Journal Of Interprofessional Care* [serial online].27(3):272-273.

Outlined here is an example of an interprofessional course in communications for health sciences and nursing students that is team taught by faculty from three disciplines. The course addresses the Collaborative Healthcare Interprofessional Competencies (shared values and ethics, interprofessional communication, roles and responsibilities, and teamwork), along with interprofessional conflict resolution. Pedagogy and course design are described. Discussions in CHS that have been part of this project have included interest in increasing opportunities for interprofessional involvement.

Kruger, S. B., Nel, M. M., & van Zyl, G. J. (2015). Implementing and managing community-based education and service learning in undergraduate health sciences programmes: Students' perspectives. *African Journal Of Health Professions Education*, *7*(2), 161-164. doi:10.7196/AJHPE.333

This qualitative study explores the experience of community service and service learning from the perspective of the undergraduate student in South Africa. Themes emerged from data that represented students' perceived benefits of participating in these types of learning experiences (e.g., exposure to aspects of desired fields, personal growth, improved interpersonal skills, application of theory (classroom learning), developing of professional competencies). Also shared are students' perceptions of the negatives of the experiences (e.g., poor orientation, poor organization, communication difficulties, attitudes of healthcare professionals, unstructured reflection experiences). Authors outline suggestions for addressing concern raised by student participants and capitalizing on benefits.

Macznik, A.K., Riberio, D.C., & Baxter, G.D. (2015). Online technology use in physiotherapy teaching and learning: A systematic review of effectiveness and users' perceptions. BMC Medical Education 15:160. DOI: 10.1186/s12909-015-0429-8. Available at: http://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-015-0429-8

This systematic review examines studies (case studies, controlled trials, randomized controlled trials) that investigated the effectiveness of online technology on achievements in learning. They looked at use of websites to support (learning management systems that housed all course items in one location), discussion boards, and other technologies. Authors concluded that on-line technology was received positively by students. Based on studies reviewed, the use of websites did improve practical skills but there was no recorded value on knowledge development or clinical reasoning; however, the website delivery was more cost effective than traditional teaching. Discussion boards were found to improve the building of knowledge and critical and reflective thinking. The activity also improved their awareness of professional values and their participation in discussion of readings. They concluded the use of websites (that housed videos, written materials, etc.) and discussion boards were beneficial to students' development of practical skills and knowledge. The article also provides descriptions of methods of on-line learning used in the studies included in the review.

Neville C, Petro R, Mitchell G,& Brady S. (2013). Team decision making: design, implementation and evaluation of an interprofessional education activity for undergraduate health science students. *Journal of Interprofessional Care* , 27(6):523-525.

Shared here is a pilot of an interprofessional education activity that included brief lecture, a small group activity, observation of an interprofessional team working together. The activity focused on processes. Student responses showed increased understanding of professional roles and the importance of conflict resolution and communication in interprofessional teamwork. Includes a multitude of measures that could be employed in CHS to evaluate interprofessional activities in relation to relevant student learning outcomes tied to interprofessional healthcare competences.

Newton G, Bettger W, Buchholz A, Kulak V, Racey M. Evidence-informed strategies for undergraduate nutrition education: a review. *Applied Physiology, Nutrition & Metabolism* [serial online]. July 2015;40(7):652-661.

Although this article discusses teaching approaches in relation to nutrition programs, the material has relevance for the disciplines in CHS in that they teach application of skills, problem-solving, and critical thinking. Specific pedagogy are discussed—case based learning, project-based learning, community-based learning, and virtual trials. The authors describe each method, potential benefits, and illustrate the application of each method with undergraduates in the nutrition program.

Pradeep, P. G., et al. (2014). Online eLearning for undergraduates in health professions: A systematic review of the impact on knowledge, skills, attitudes, and satisfaction. *Journal of Global Health, 4* (1). **Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4073252/**

Provided here is a systematic review of the literature (RTC) that compared courses that were either on-line, blended, or supplemented traditional classroom format with an on-line component. The review follows the Cochran format.

Preston,E., Ada, L., Dean, C.M., Stanton, R., Waddington, G., & Canning, C. (2012). The Physiotherapy eSkills Training Online resource improves performance of practical skills: a controlled trial. *Biomed Central Medical Education,* Vol. 12, pp. 119.

This study explores the impact of utilizing on-line materials to bolster students' mastery of practical skill. Examined was the effectiveness of adding on-line support to the usual in-classroom teaching of practical skills in physical therapy education. Students in the experimental group received an on-line support module that consisted of videos of therapist-patient interaction simulations, accompanying text that provided the goal, rationale, main pint summary, and common mistakes, and a PDF file that students could download of the information found on-line that was linked to pictures of the video illustrating the practical skill. Results showed that the experimental group performed better on overall skills and each skill component as assessed using a practical exam. This study describes a way to use technology and on-line material as a companion to classroom learning to aid students in learning applied skills.

Rieske, L. J., & Benjamin, M. (2015). Utilizing Peer Mentor Roles in Learning Communities. *New Directions For Student Services*, *2015*(149), 67-77. doi:10.1002/ss.20118

Peer mentoring (support offered to another by one with more expertise in that area) has received attention in the literature in relation to retention and attrition and has been found to be helpful in cultivating engagement and a sense of belongingness. This chapter reviews the evidence evaluating peer mentoring in higher education, describes models implemented in various institutions (in general and in living learning programs), and desired qualifications/elements of peer mentoring.

Secomb J. A systematic review of peer teaching and learning in clinical education. *Journal Of Clinical Nursing* [serial online]. March 15, 2008;17(6):703-716.

This systematic review examines the literature for studies that investigated peer learning with health sciences undergraduate nursing students for clinical experiences. Findings showed that students engaged in peer learning showed improvements in skills and cognitive understanding of material. No studies measured affective gains. Student learning/teaching effectiveness and mentee satisfaction were influenced by compatibility of peer personalities and learning styles. Details regarding studies included in the review describe specific formats of peer teaching and learning that could be helpful.

Stupans, I., Scutter, S., & Sawyer, T. (2011). Fostering professionalism through scaffolding in first year clinical placements. *Innovations In Education & Teaching International*, *48*(3), 263-274. doi:10.1080/14703297.2011.593703

The need to cultivate professionalism in students in all undergraduate programs was a consistent theme in discussions with faculty. This article shares a format implemented for first year students that developed professionalism through scaffolding. It included a week long clinical placement, pre and post surveys (in which students rated scenarios in terms related to professional/unprofessional), provided opportunities to identify their own conceptualization of professionalism and share observations of such in their placement, as well as discuss points of disagreement with other students.

Talbott J. Professionalism in the health sciences: lessons learned from its definition, evaluation, and teaching in a medical school. *Journal Of Veterinary Medical Education* [serial online]. 2005 Summer 2005;32(2):237-241.

This article describes a model designed to teach professionalism to medical students with the intent to offer a method of addressing this need more broadly in healthcare majors. The journal is not available at UK Library and would need to be requested via interlibrary loan.

Thompson B, Schneider V, Haidet P, Perkowski L, Richards B. Factors influencing implementation of team-based learning in health sciences education. *Academic Medicine: Journal Of The Association Of American Medical Colleges* [serial online]. October 2007;82(10 Suppl):S53-S56.

This study investigated elements that impact the implementation of team-based learning with the thought these factors could be helpful in relation to innovations in education in health sciences in general. Comparative qualitative analysis showed five factors as influential: buy-in they must have buy-in from the faculty, ensure that there is adequate time and resources to support the team-based learning, develop or have available the required faculty expertise, and characteristics of the course, such as size—with the point made that larger classes are more difficult for team-based learning. Ideal size was noted to be about 25 with 5 teams of 5 students.

Tunstall-Pedoe S, Rink E, Hilton S. Student attitudes to undergraduate interprofessional education. *Journal Of Interprofessional Care* [serial online]. May 2003;17(2):162. Available from: Sociological Collection, Ipswich, MA. Accessed September 1, 2016.

This study investigated student attitudes towards other professions. They found through interprofessional education efforts that undergraduate students enter health professions with stereotypical views of other professions—views that they found grew stronger during the common

foundation courses. Students who had parents who were in health professions appeared to have stronger stereotypes of other professions. Interprofessional education was helpful in confronting the stereotypes. The point is made by the authors that many of the skills needed to work on interprofessional teams do not require discipline-specific specialized knowledge (e.g., teamwork skills and communication skills)—interprofessional experiences can begin early in undergraduate careers.

Yan Z, FitzPatrick K. Promoting Cultural Competence, Health Behaviors, and Professional Practice in Undergraduate Education through Peer Learning. *JOPERD: The Journal Of Physical Education, Recreation & Dance* [serial online]. February 2016;87(2):27-32.

The authors of this article argue for peer learning as a means to develop cultural competence. A model through which this could occur is described and the point made that peer learning takes advantage of the diversity that exists in student groups. The model requires the pairing of domestic students with international students to work in smaller groups. Cultural competence is suggested to be infused throughout the curriculum. Suggestions as to how peer learning can help further this aim are also shared.

Appendix F
Literature Review: Policy, Structure, and Planning

American Speech-Language-Hearing Association. (2015). Final report: The role of undergraduate education in communication sciences and disorders. Rockville, MD: American Speech-Language-Hearing Association, Academic Affairs Board. Retrieved from: http://www.asha.org/uploadedFiles/ASHA/About/governance/Resolutions_and_Motions/2015/BOD-21-2015-AAB-Report-on-the-Role-of-Undergraduate-Education.pdf

Reviewed existing programs; discussed the need for broad-based programs that extend beyond preparation for graduate programs in Audiology and Speech-Language Pathology.

Association of Academic Health Centers (2008). Out of order, out of time. Available at: http://www.aahcdc.org/Portals/0/pdf/AAHC_OutofTime_4WEB.pdf

Points made in this report include: 1) Students' access to health professional education is hampered by limited resources and narrow vision; 2) Elevation of minimum credentials for entry into professions highlights competition to shape market without regard to infrastructure threats; 3) the quality and consistency of education are under pressure; persistent faculty shortages are a serious concern; 4) faculty supply is being outpaced by the opening of new health professional schools; 5) faculty job satisfaction is a growing concern; 6) increased entrepreneurialism and privatization in education call traditional norms into question; 7) inter-- professional education and practice may be key to meeting future health workforce objectives but have not yet been mainstreamed. (p. 39 through 51).

Barefoot, B.O., Griffin, B.Q., & Koch, A.K.(2012). Enhancing student success and retention throughout undergraduate education: A national survey. Available at: http://www.jngi.org/wordpress/wp-content/uploads/2012/04/JNGInational_survey_web.pdf.

This is a national survey of 4 year institutions conducted in 2010 that examines the frequency with which activity categories or initiatives are offered to support undergraduate student success and retention. Received were 527 responses represented a 38.4% response rate. The authors examined the sample and found it to be representative in control and size of 4 year institutions in the US, but private schools and those with enrollment under 1000 were underrepresented. Responding institutions were also asked about outcomes achieved in relation to specific initiatives, which are included in the report. Initiatives that may be of particular interest to CHS are pre-term orientation, academic transition seminars (for all student years and transfers), learning communities, service learning and undergraduate research.

Council on Postsecondary Education. Stronger by degrees: A plan to create a more educated & prosperous Kentucky. 2016-2021 Strategic agenda for postsecondary and adult education. Accessed at: http://files.eric.ed.gov/fulltext/ED561885.pdf

Delineated in this document is the strategic agenda of CPE for post-secondary and adult education. The agenda outlines specific goals and action steps for the purpose to "Improve college readiness and enrollment, produce more certificates and degrees aligned with workforce needs, and work closely with local communities to enhance their standard of living and quality of life." (p.3). Details of this report are incorporated in the context section for this CHS report.

Institute of Medicine (2003). Health professions education: A bridge to quality. Washington, DC: National Academies Press.

This report is a classic in health education and represents a follow-up to an interdisciplinary summit that was held in 2002 to improve health profession education. This is a follow-up to the summit and provides key aspects of the interdisciplinary work, including thoughts about how core competencies could be integrated into education centered on health professions. Core competencies include patient-centered care, interdisciplinary teams, evidence-based practice, quality improvement, and informatics.

Keeling, R.P., Underhile. R., & and Wall, A.F. (2007). Horizontal and vertical structure: The dynamics of organization in Higher ed. Association of American Colleges & Universities, 93 (4). Available at: https://www.aacu.org/publications-research/periodicals/horizontal-and-vertical-structures-dynamics-organization-higher

Written at the overall institutional level, may have some cultural and organizational aspects helpful to CHS. Higher ed institutions have traditionally assumed a vertical structure, with entities being loosely connected/ To create a culture of evidence (assessment) of outcome-based learning there must be cross-discipline work and integration of student affairs services and support with academic affairs. There must be intentional strategizing to develop shared student learning outcomes across the institution (college). Moving from a vertical to horizontal structure and function where possible can assist with integration and the collective work of focusing on students and achieving shared student learning outcomes.

Provan J. Organization of the department of surgery to facilitate undergraduate education. *Canadian Journal Of Surgery. Journal Canadien De Chirurgie* [serial online]. July 1985;28(4):349-351. [abstract]

This article describes the need for a director of undergraduate studies for oversight of programs, anticipated role, qualifications and training, involvement on faculty committees as a historical reference point. Full-text would need to be requested via interlibrary loan.

Stoddard H, Brownfield E, Churchward G, Eley J. Interweaving Curriculum Committees: A New Structure to Facilitate Oversight and Sustain Innovation. *Academic Medicine: Journal Of The Association Of American Medical Colleges* [serial online]. January 2016;91(1):48-53.

Described is a model for faculty oversight and curriculum development at college level (medical college). The program in the case study underwent significant curriculum change but did not alter its curricular review process (a single curriculum committee). The goal was to increase involvement, work cooperatively across disciplines, and retain efficiency in decision-making. They instituted 9 committees organized around curriculum levels (e.g., foundation, required clerkship, discovery and scholarship, electives and capstone), task-based (program evaluation, student assessment, educational development, instructional and information technology), and wrap around committees (executive, student, transitions committees. Faculty were cross-represented on committees and instructed to make decisions for the good of the college as a whole to improve overall student learning outcomes (rather than participating to protect disciplinary turf). Professional staff and administrative faculty were involved as ex officio members as appropriate. Communication was enhanced by 'interweaving' membership so that members served on another related committee to provide first-hand accounts of other work to move decisions along. They considered the effort to help manage politics, foster a cooperative environment, build leadership, and increase participation.

World Health Organization (2010). Framework for action on interprofessional education & collaborative practice. Available at: http://www.who.int/hrh/resources/framework_action/en/

The focus of this document is on interprofessional educational and collaborative practice as a mechanism for helping to mitigate the challenges faced by health systems world-wide. Learning to function effectively on interprofessional healthcare teams, practicing collaboratively, advocating for integrated health and education polices, and specific suggestions for developing and implementing interprofessional education are provided.

World Health Organization (2013). Transforming and scaling up health professionals' education and training: World Health Organization Guidelines 2013. Available at:
http://www.who.int/hrh/resources/transf_scaling_hpet/en/

These guidelines focus on the importance of 'scaling up' health professionals' education to address population health needs. Educational institutions are charged to increase their capacity for preparing health care workers and to improve education through faculty and curriculum development, use of simulation, strategies for direct entry of graduates from relevant programs, targeted admissions procedures, use of educational pathway and career ladders, use of professional accreditation, continuous professional development and a focus in interprofessional education.

Appendix G

Literature Review: Class Size

Cuseo, J. (2007). The Empirical Case against Large Class Size: Adverse Effects on the Teaching, Learning, and Retention of First-Year Students. *Journal Of Faculty Development*, *21*(1), 5-21.

This article is not available in full-text at UK's library, but would be a helpful resource. Dr. Cuseo is well-versed in issues related to student success. He suggests that larger class size has a negative impact on first year undergraduate students, and delineates 8 elements to consider in relation to this. The topic is relevant to CHS, given the extent of growth in some programs and their impact on class size.

Monks, J., Schmidt, R., & Cornell Higher Education Research Institute, (. (2010). The Impact of Class Size and Number of Students on Outcomes in Higher Education. *Cornell Higher Education Research Institute*, 2010 25 pp. (ED532716), Database: ERIC.

The authors add to the literature by investigating the impact of class sizes and number of students that teachers are responsible for across their total teaching assignment on student learning. They found that large class sizes and teaching a high student load totaled across all courses resulted in negatively impacting students and teachers changing their course in ways that were detrimental to students.

Maringe, F., & Sing, N. (2014). Teaching Large Classes in an Increasingly Internationalising Higher Education Environment: Pedagogical, Quality and Equity Issues. *Higher Education: The International Journal Of Higher Education And Educational Planning*, *67*(6), 761-782.

Authors examine the literature to delineate eight pedagogical recommendations for large classrooms educating diverse students and using technology (eg., MOOCS) and engage students actively, assess learning, etc. This work could be of assistance in thinking about how to construct courses that have large enrollments that challenge traditional or previous methods of instruction and how to assess student learning and satisfaction, while acknowledging that greater access to courses also increases diversity of students, which requires pedagogical attention.

Arzt J. (2017). Online Courses and Optimal Class Size: A Complex Formula. *Online Submission* [serial online]. October 21, 2011;Available from: ERIC, Ipswich, MA.

Authors reviewed the literature to determine parameters for optimal class size for on-line courses. They arrived at an estimate of 12-22 students per class, with sizes depending upon the (1) discipline/profession, course syllabus, content, and outcome, (2) experience of the instructor in teaching online, (3) level of student (undergraduate, masters, doctorate), and (4) extent of university support/workload. They also found that both student learning styles and instructor teaching styles had bearing on class size. Provides a good review of qualitative research and that using experimental-quasi experimental design (theoretical work was excluded).

Hornsby, D. J., & Osman, R. (2014). Massification in Higher Education: Large Classes and Student Learning. *Higher Education: The International Journal of Higher Education and Educational Planning*, *67*(6), 711-719.

*This article is an introduction to a special issue in **Higher Education** devoted to teaching large classes. It contains a review of the literature and acknowledges that it appears here to stay and discusses both the*

challenges of large enrollments and the opportunities for innovation. This article provides a nice overview for the issue as it describes all of the articles that can be found in that source.

Qiu, M., Hewitt, J., & Brett, C. (2012). Online Class Size, Note Reading, Note Writing and Collaborative Discourse. *International Journal Of Computer-Supported Collaborative Learning*, *7*(3), 423-442.

This study looked at the impact of online large classes on graduate student's note writing, note reading, and collaborative discourse. Authors concluded that larger class sizes correlated with more note taking, but less note reading—students appeared to experience information overload more frequently in the larger classes. Also—they recommend breaking large classes into smaller discussion groups to assist with outcomes and also to increase the level of collaborative discourse that students experience.

Toth, L. S., & Montagna, L. G. (2002). Class size and achievement in higher education: A summary of current research. *College Student Journal*, *36*(2), 253.

This study examined available literature about class size and achievement. Authors' summary shared inconclusive results and expressed concern about weak methodology. They recommend consideration of variables such as student level of preparedness and college readiness and suggest a multi-faceted means through which student achievement can be assessed. This article may be helpful in reminding readers of limitations of research conducted in this area and knowledge gaps to assist with evaluating relevant studies and their findings.

Ehrenberg, R.G., Brewer, D.J., Gamoran,, A., & Willms, J.D. (2001). Class size and student achievement. *Psychological Science in the Public's Interest, 2* (1). Available at: https://www.psychologicalscience.org/journals/pspi/pdf/pspi2_1.pdf?origin=p

This study includes a discussion of policy implications for class size and student characteristics and context (e.g., socioeconomic level, single/two parent homes, etc.) that could have bearing on their readiness to learn and subsequent achievements. Also discussed are instructor related qualifications and characteristics that could influence student achievement in relation to class size.

Benton, S.L., & Pallett, W.H. (2013). Class size matters. *Inside Higher Ed.* Available at: *https://www.insidehighered.com/views/2013/01/29/essay-importance-class-size-higher-education*

This article discusses the challenges of large class sizes and that they can have an impact on student learning. They cite factors such as student preparation, motivation, work habits as serving as greater predictors of achievement than class size (although class size does matter). They also review teacher characteristics and approach—for example, instructors of large classes may emphasize factual material rather than higher level of learning—and the authors suggest that this might be a good use of larger classes. They also point out that greater sophistication in technology creates the opportunity for data mining and other means of detecting struggling students—so that this individual outreach may not get lost due to large class size and/or distance learning.

Minnesota State University. Class size. Available at: https://www.mnsu.edu/cetl/teachingresources/articles/classsize.html

This entry is a practical summary of findings in the literature regarding impact of large class sizes. Reported here is the conclusion that large class sizes do not appear to impact student achievement

related to fact-based learning or standardized tests. However, it does appear to limit and negatively impact higher-ordered learning. Also, students tend to be less enthusiastic about large class sizes in their major classes and larger classes appear to be less appealing for students with higher GPAs. The larger classes do not appear to negatively impact teacher evaluations when course content is fact- related.

Multiple sites of on-line information about class size are available at the link below. Numerous articles are available that expand upon the information introduced above for additional reading: https://www.google.com/search?client=safari&hl=en-us&ei=YuVwWLbnJ6jWjwSJ8ZrYCg&q=optimal+class+size+higher+education&oq=optimal+class+size+in+higher&gs_l=mobile-gws-serp.1.0.0i22i30k1.15954.23857.0.25171.24.22.2.0.0.0.379.2951.5j15j0j2.22.0....0...1c.1.64.mobile-gws-serp..0.22.2824...0j33i22i29i30k1j33i160k1.3r0UVJB8GFU

Appendix H

Themes and Supporting Statements from Unit 2009-2015 Periodic Reviews

*Program specific recommendations are not included unless they are repeated across programs

Document Source Codes:
- ERC – External Review Committee Recommendation
- SS - Unit Self-Study Recommendation

College of Health Sciences (CHS) Periodic Review Recommendation Summary
- CHS--- College of Health Sciences
- OSA – Office of Student Affairs
- ADV – Office of Advancement

Department of Rehabilitation Sciences (DRS) Periodic Review Recommendation Summary
- CSD BHS – Communication Sciences and Disorders, undergraduate

Department of Clinical Sciences (DCS) Periodic Review Recommendation Summary
- CLM – Clinical Leadership and Management
- HHS – Human Health Sciences
- MLS – Medical Laboratory Science

THEMES	Periodic Review Document Recommendation Support
Anchor Themes	
1) **Community engagement** (including service learning, observations, shadowing, and clinical rotations)	NOTE: DRS ERC notes need for expanded clinical space; need for metrics found in …..
Establish a function/position at the College level to coordinate clinical rotations, shadowing, and other experiences and administrative aspects such as MOAs for all programs. This recommendation is to compliment the role and control individual programs have in this area, not replace them.	CHS ERC – "The CHS's clinical contracts are currently managed within each division. The ERC recommends that a more efficient and risk-averse model is for CHS to maintain one database that is populated and maintained by a staff contract administrator who relates to the programs' clinical coordinators. Establishing one contract per facility, can fold in all appropriate disciplines, and create synergies between programs. A CHS centralized process will foster time efficiencies for both legal counsel (one designated attorney is ideal) and the clinical coordinators. A committee of clinical coordinators can be invaluable in establishing CHS-wide clinical policies and serve as a peer collaboration group for clinical education and training requirements." DRS ERC – …..create a department-wide understanding of best practices. There is inconsistent review of externship rotation quality by program…unclear that there is a department learning culture where best practices for one … program are gleaned and transferred to … another… DCS ERC "….providing equivalent experiences to individual students is challenging, and it is suggested that the Department research how other programs overcome this obstacle." NOTE: Recommendations for improving clinically-related *unit-specific* processes and success metrics are not included in this document but should be examined when considering

	roles/responsibilities for a CHS-level clinical position and all clinically-related positions across units. NOTE: Need for *unit-specific* personnel and space for community engagement is summarized under 'resource' theme.
Inventory and prioritize community engagement experiences to meet licensure/accreditation requirements, address burden on community, identify those experiences that have alternatives, and ensure intentionality and tie to SLOs.	• PT SS – Evaluate the revised clinical education sequence to assess its sustainability with respect to number and types of facilities required to operate it. PT also includes 'continued growth of service learning opportunities locally and abroad… • DCS SS – "Retain current clinical sites and increase the number and quality of clinical sites and practitioners available for the shadowing, practicum, and clinical clerkships needed for quality degree programs…… • DCS ERC – "proactive and creative planning is needed to identify clinical training opportunities in an environment of limited space and location resources….investigate collaborative opportunities on campus, in Lexington and with other institutions." • CLM and HHS SS - …work with other colleges and university programs on clinical and practicum site development…" • MLS SS and ERC – "…continue to expand and strengthen practicum site partnerships…" • DRS RR – improve integration between academic programs and Acad MC and UK Clinical Enterprise • DPT RR – explore clin opps at med ctr; establish more clin opps NOTE: Relevant recommendations from all units pertaining to community burden are included here since the issue pertains to cumulative impact of unit requirements
Provide support and professional development for those in the community working with CHS students, including expectations and evaluation of students.	DRS SS – Develop strategies for offering non-financial 'added value' for clinical partners…
2) Integration of pre-professional students into CHS and majors	
Create opportunities to integrate CHS pre-professional students at the College level and in collaboration among CHS entities via shared interests.	OSA RR – "Programming needs to be expanded to reach a broader range of students…and relevant issues. NOTE: This statement was not targeted and pre-professional or exploratory students in general (no exp students were enrolled at the time of the review), but the recommendation can be extrapolated to include these groups…..financial wellness should be a top programming priority."
Encourage student involvement in undergraduate research and other high impact experiences.	CSD BHS ERC – UG research office may be able to engage students with research experience (OR rec; not CSD)
Increase pre-professional student contact with faculty and upper classmen by organizing opportunities/events for faculty interaction and peer support.	
3) **Services for exploratory students**	NOTE: No exploratory students were in the CHS during the review period.

Clearly define the roles of faculty and professional staff in advising, mentoring and other support services exploratory for major students for efficient use of resources and expertise.	
Establish a college-wide systematic and intentional pathway by which exploratory progress through the steps of self-exploration, major and career investigation, and major declaration.	
Discuss potential for modification to the HHS curriculum/program to support exploratory students, academic progress, and major declaration.	
Process (Means) Themes	
4) **Communication and cross involvement**	
Establish a structure/process to provide coordination of CHS undergraduate initiative planning, facilitate communication and collaborations throughout CHS.	CHS ERC – "Possibilities for transformation include: An undergraduate department to oversee admissions standards, advising, policies and procedures, and curricula, and collaborate with the Office of Research on the undergraduate research certificate. It is crucial to insure that the influx of undergraduate students in Fall 2017 is met with sufficient staff and faculty resources so as to maintain the CHS's high retention rates."
Address silos in CHS through formal opportunities to educate faculty and professional staff about various programs, roles, responsibilities, and structured collaborations.	
Consider a culture shift in which the OSA works with faculty early to identify program needs and work together to meet these needs and plan initiatives and processes that support the academic mission of the CHS.	OSA RR – "Communication of OSA programming and policy changes with faculty and staff should be enhanced" (p. 8, CHS Review)
5) Diversity and inclusiveness	DCS SS and ERC – need to increase diversity of faculty, staff, students
Build on the strong emphasis in CHS on cultural competence by strategically increasing opportunities to connect CHS students to international experiences.	
Work through the CHS Diversity & Inclusion Committee (or other entities as deemed appropriate) to formulate and guide implementation of diversity-related initiatives relevant to areas important to undergraduate education.	CHS ERC - The CHS should continue to infuse diversity into the curricula and into visible branding. The CHS should continue to relate and engage with the disability community and incorporate disability studies and policy into the curricula. The CHS should considering strengthening access to AAC equipment, expertise, and research.
Examine type and extent of support needed to further diversity and inclusion efforts within CHS aimed at recruitment and the engagement and retention of current students.	CHS ERC - The CHS would benefit from the appointment of a Diversity Officer with sufficient FTE and experience. This individual should relate to all segments of the CHS and UK communities (especially the Graduate School), and serve as a liaison to University diversity initiatives, offices and diversity officers in other UK Colleges.

	DCS ERC – "It is recommend that training in whole file review be refreshed and admissions personnel and faculty are exposed to this training."
6) **Innovative pedagogy and instructional delivery services**	DCS – ERC – consider alternative options for content delivery; explore and implement novel content delivery options…. Also need specialized IT support
Develop a CHS-wide conceptualization/philosophy and principles of distance learning education and translation of face to face pedagogy to DL pedagogy with provision of access to technical and instructional design resources.	
Base pedagogy choice in face-to-face and distance learning courses on best practice, student characteristics and specific course outcomes and program goals, optimal and appropriate class size for type of course.	
Increase opportunities for interprofessional education within the College and across campus.	DRS SS – consider coursework that might be taught interprofessionally as units revise curricula
7) **Recruitment, applications, admissions**	MLS RR & ERC – targeted recruitment strategies; promote MLT to MLS (NOTE: important program level rec); recruitment of better students CSD BHS ERC – more structured advising system; improved recruitment strategies
Continue holistic admission process to CHS undergraduate programs and identify shared elements of student preparation for competitive applications across programs to establish a CHS-level expectation.	DCS ERC – "It is recommended that training in whole file review be refreshed and admissions personnel and faculty are exposed to this training."
Identify opportunities to coordinate efforts in the admission process at the College level and synchronize admission requirements when possible to ease application to and transition among majors.	
Increase support of timely application of suitable CHS students via the implementation of strategies that educate students about the scope and rigor of majors and careers and confirm their interest/commitment to desired majors.	
Support Theme	
8) **Faculty, staff, student, and other resources (space, equipment, monetary)**	CLM ERC – 'balance resources for all areas impacted to meet overall goals of program."
Inventory needs for faculty, staff, and other resources (including space) to ensure adequate support for new program/track development that are aligned with CHS priorities and supported by evidence.	**FACULTY & STAFF**: • CHS ERC – "The CHS needs access to Teaching Assistants (TAs). Access to TAs will be crucial to manage the increase in undergraduate students." • OSA RR – request an advisor (NOTE: additional hires in progress due to recent addition of exploratory students) • DCS SS – increase retention of faculty and staff; provide PD and resources

	• CLM and HHS ERC – support for junior faculty…..; CSD BHS SS – junior faculty support; issues around salary compression • DCS ERC – "…additional staff support be considered to manage clinical rotations, and the Office of Information Technology should investigate scheduling software as well." (NOTE: the conclusion that the dept has only one full time staff member to manage clinical rotations is erroneous." • DCS ERC – "faculty…should request support (time and staff support) from Administration to develop a sound curriculum management process…. Consider appointing a Director of Undergrad Studies.." • DCS ERC – explore hiring more PT faculty/lecturers to provide release time for FT faculty to meet research commitments. Intentional hiring based on type of program need (special/reg, etc.) • CLM and HHS SS – more PT faculty or TAs or faculty to free up faculty to meet research expectations • CLM and HHS SS – need more DOE for instruction • MLS RR & ERC – support for MLT-MLS program and other resources needed for growth; protected time for online coordinator; FT practicum coordinator • HHS ERC – "more staff to assist with clinical site placement and other student-related activities" • CLM and HHS SS – more PD and support for staff; more incentives • DCS ERC – more IT staff support • MLS RR & ERC – resources at CERH to help with pipeline efforts • DRS SS – faculty development in research & scholarship; need for faculty and staff hires; succession planning (individual programs say the same) **SPACE and other**: • CHS ERC – "The need for large classroom spaces, laboratory space for future hires and their doctoral students, student lounge space, and more office space are valid concerns. The ERC recommends a CHS space utilization study within the Wethington Building (i.e., offices; classrooms; clinical; laboratory) that will also determine the potential for re-configuring space and establish criteria/metrics for space allocation and impacts on future growth." • DCS ERC – space for large classes; space for break-outs or more small classes; look at non-traditional scheduling options (late or early in day, etc.); investigate space reallocation • OSA RR – conduct space audit, including OSA space and student lounge. (NOTE: audit underway) • DCS SS – identify additional classroom space, including DL classrooms; • DRS SS - assess current and future space needs; explore additional space for faculty, students, labs and specialty clinics • DPT ERC – space for PT program • CSD SS – clinical space; enterprise contract revisited • HHS ERC – space for large classes • OSA RR – review OSA budget for adequacy
Investigate possible modifications in structure and process to increase efficiency and inclusivity that leverages existing programming to meet student/ program needs and minimize burden on staff and faculty (allocating time of junior	DCS ERC – "The (CS) Department may want to consider appointing a Director of Undergraduate Studies to coordinate and facilitate the curriculum management process."

faculty to fulfill research expectations, along with teaching).	
Clearly define faculty and professional staff roles and responsibilities (within programs, between faculty and OSA, Office of Academic and Faculty Affairs, Associate Dean for Clinical Engagement in relation to UGE.	(DRS SS refers to roles; see below)
Outcome Themes	
9) **Individualized education** (quality instruction with planned program growth)	DCS ERC – provide release time for faculty & staff development; implement internal team-bldg and leadership activities CLM and HHS SS – need to improve faculty mentoring/education regarding how to manage large classrooms and eLearning modalities.
Protect this CHS strength by growing programs strategically with evidential and resource support to protect student-faculty ratio and provide quality education.	DCS – ERC (section on curriculum)
Continue to provide high quality instruction in and out of the classroom by increasing faculty involvement and encourage student participation in undergraduate research and other high impact activities.	DCS – RR – "Maintain and increase the quality of teaching"
Retain current level of responsiveness/availability of faculty to students while growing programs/enrollment.	
10) **Student retention, academic progression, graduation, placement (employment or grad school), and overall success**	NOTE: this rec (#10) should extend beyond pre and exploratory students
Cultivate a sense of connection and belongingness of students (particularly first year students) by establishing student support systems such as peer support, pre-professional clubs and encouraging involvement.	CLM and HHS SS; ERC – "early advising; provide early advising and tutoring services; provide early detection" NOTE: this really is a request for more assistance from OSA
Offer pre-and exploratory students periodic program-wide events or opportunities to meet faculty and learn about majors and careers in conjunction with the LLP and OSA.	
Expand opportunities for students to obtain financial support through scholarships, etc. to support retention and academic progression.	ADV RR- "Increase student scholarship support by building the general scholarship fund and by creating endowed scholarships" DRS SS – more scholarships, especially for those from diverse backgrounds
Examine program structure across CHS to enhance integration of undergraduate education support resources with programs to increase collaboration.	
Curriculum and Structure	
Curriculum	

Examine the curriculum of each undergraduate program (particularly those not associated with an accrediting agency or professional association) to articulate mission, program goals, student learning outcomes, and complete curriculum mapping to ensure that coursework is current for pre-professional preparation and relevant for each degree, affirm the purpose of each program, and address any duplication of overlap. *Note: goal is to have a conceptualization of each degree and the ability to construct a narrative that ties the courses to the SLO, program goals and purpose- this should be coherent and clear.*	DCS – ERC – "Curriculum Management: It is suggested that the Department and its academic units develop a curriculum management process and sound curriculum managements plans. New programs should not be developed by using current curriculum maps from existing programs, and omissions and redundancies in course offerings and content need to be closely examined. Sequencing of courses needs to be examined….The plan should include an overall review of each degree program curriculum…" CLM ERC – "review of the mission, vision & goals of CLM and HHS.." HHS ERC – "evaluate the curricula for the HHS and CLM programs"…. CSD BHS RR – engage in curriculum revision (also CSD MS)
Examine the curriculum change/approval process within each program to ensure that a democratic and inclusive curriculum review process is articulated, known by faculty, and implemented with accountability.	DCS – ERC – "…The plan should include an overall review of each program curriculum, including feedback from faculty internal and external to the program….. Faculty are responsible for the curriculum and should request support (time and staff support) from administration to develop a sound curriculum management process." DCS ERC – "The (CS) Department may want to consider appointing a Director of Undergraduate Studies to coordinate and facilitate the curriculum management process." CLM ERC – "formalization of structures to support curriculum growth, development and review"… (NOTE: this goes beyond the approval process)
Explore opportunities to connect all (or some) CHS undergraduate programs through course offerings that are relevant to CHS undergraduate programs and undergraduate students (e.g., focused on professionalism, general healthcare knowledge, foundational courses, interprofessional education).	CLM & HHS RR/ERC – some mention of possible coursework that could be combined (e.g., evidence-based practice)
Explore desirability and feasibility of a general track in HHS and the role this program could have in assisting exploratory students or major changes in transitioning to new majors in CHS, minimizing lost time and/or credit.	CLM ERC – "review of the mission, vision & goals of CLM and HHS.." HHS ERC – "evaluate the curricula for the HHS and CLM programs"….
Continue discussion and development of honors pathway with faculty involvement.	Not directly addressed – outside review period
Structure	
Address silos among programs and between programs and OSA to increase communication and faculty awareness of CHS programs and initiatives across the College to identify opportunities for collaboration, eliminate duplication, and encourage efficient use of resources and support of faculty and staff.	NOTE: Although no recommendations were for a college-level coordinator, some recommendations referred to the need for better coordination across programs. • DRS ERC – …..create a department-wide understanding of best practices. There is inconsistent review of externship rotation quality by program…unclear that there is a department learning culture where best practices for one … program are gleaned and transferred to … another… • DCS ERC "….providing equivalent experiences to individual students is challenging, and it is suggested that the

	Department research how other programs overcome this obstacle." • DRS RR – improve integration between academic programs and Acad MC and UK Clinical Enterprise • OSA RR – "Programming needs to be expanded to reach a broader range of students…and relevant issues. • OSA RR – "Communication of OSA programming and policy changes with faculty and staff should be enhanced" (p. 8, CHS Review) • DCS ERC – "It is recommend that training in whole file review be refreshed and admissions personnel and faculty are exposed to this training." • DRS SS – consider coursework that might be taught interprofessionally as units revise curricula • DRS SS – faculty development in research & scholarship; need for faculty and staff hires; succession planning (individual programs say the same) DCS ERC – provide release time for faculty & staff development; implement internal team-bldg and leadership activities
Examine current structure of Departments and Divisions for efficiency and clarity.	DRS SS – "Dept and College should engage in a conversation about its administrative structures that may appear awkward to the outside reviews…. Broader review of roles and responsibilities of each program and faculty/staff role in relationship to the college's mission." DCS ERC – "The (CS) Department may want to consider appointing a Director of Undergraduate Studies to coordinate and facilitate the curriculum management process." CHS ERC – "Possibilities for (structural) transformation include: • An undergraduate department to oversee admissions standards, advising, policies and procedures, and curricula, and collaborate with the Office of Research on the undergraduate research certificate. It is crucial to insure that the influx of undergraduate students in Fall 2017 is met with sufficient staff and faculty resources so as to maintain the CHS's high retention rates. • Convert some professionally oriented divisions (and perhaps other divisions) to departments, with a direct report to the Dean or his designee."
Address the general role confusion that was noted within the College and programs and clarify the roles of OSA, Office of Associate Dean of Faculty and Academic Affairs, Chairs, Division Directors, faculty vs. professional staff in CHS and within programs. Articulate how DUS functions are systematically and consistently carried out for each program and student issues addressed and resolved.	DRS SS- Broader review of roles and responsibilities of each program and faculty/staff role in relationship to the college's mission." CHS ERC – "Re-evaluate the roles and domains of associate deans, assistant deans, and directors, to streamline the current structure."