

REVIEW FOR ACCREDITATION
OF THE
COLORADO SCHOOL OF PUBLIC HEALTH
JOINTLY SPONSORED BY
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COUNCIL ON EDUCATION FOR PUBLIC HEALTH

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Introduction

This report presents the findings of the Council on Education for Public Health (CEPH) regarding the Colorado School of Public Health (ColoradoSPH). The report assesses the school's compliance with the *Accreditation Criteria for Schools of Public Health, amended June 2011*. This accreditation review included the conduct of a self-study process by school constituents, the preparation of a document describing the school and its features in relation to the criteria for accreditation and a visit in September 2015 by a team of external peer reviewers. During the visit, the team had an opportunity to interview school and university officials, administrators, teaching faculty, students, alumni and community representatives and to verify information in the self-study document by reviewing materials provided in a resource file. The team was afforded full cooperation in its efforts to assess the school and verify the self-study document.

ColoradoSPH was established in 2008 as the first school of public health in the Rocky Mountain west. The school was fully accredited by CEPH in October 2010 as a collaboration between the University of Colorado Denver/Anschutz (CU Anschutz), Colorado State University (CSU) and the University of Northern Colorado (UNC). The school addresses issues of American Indian and Alaska Native health, cancer prevention and control, diabetes and obesity prevention, global health, maternal and child health, worker health and wellness, among other areas of public health education and research. The school has more than 500 degree students, over 200 faculty and a number of relationships throughout the Rocky Mountain West, which serve the public health needs of six states in the DHHS Region VIII (Colorado, Utah, Wyoming, Montana, North Dakota, and South Dakota) as well as 32 tribal nations on reservations in that region.

CU Denver, designated as the lead institution in the collaboration, includes two campuses, CU Denver (downtown) and CU Anschutz Medical Campus. CU Anschutz Medical Campus is the only academic health center in the state of Colorado, and one of the largest joint academic health sciences and healthcare delivery campuses in the country. CU Anschutz campus is home to six professional schools in the health sciences, and the Veterans Administration is currently building a hospital on campus.

The first of the health sciences schools that now make up CU Anschutz was the CU School of Medicine, established in 1883 in Boulder. The medical school later co-located with Colorado General Hospital in Denver (known today as the University of Colorado Hospital). The original medical campus grew to eventually house the hospital and all of the health sciences schools for the University of Colorado before it completed a move to the new CU Anschutz campus in Aurora in January 2009. In 2004, CU Denver, located in downtown Denver, was consolidated administratively with the CU Health Sciences Center, located east of downtown Denver, to form a single entity within the University of Colorado. Today, the united campus is known as the University of Colorado Denver/Anschutz Medical Campus but functions on two physically separate campuses. CSU was founded in 1870, as one of 68 land-grant colleges established under the Morrill Act of 1862, and is located in Fort Collins, Colorado, approximately 60 miles north of Denver and 20

miles from UNC. CSU is a Carnegie Research University and offers 150 programs in eight colleges to 30,000 students at the undergraduate, graduate, post graduate and professional levels. UNC was established in 1889 and is located in Greeley, Colorado, approximately 45 miles north of Denver. UNC offers over 100 undergraduate programs and more than 100 graduate programs in four colleges to over 12,000 students.

CU Denver, including the Denver and Anschutz campuses, is accredited by the Higher Learning Commission of the North Central Association and is classified as a Carnegie Doctoral/Research University. The collaborating campuses of UNC and CSU are also fully accredited by the Higher Learning Commission.

The school has been accredited since 2010. The last review, in 2010, resulted in an accreditation term of five years with required interim reporting. The Council accepted the school's interim reports in October 2011 and November 2012.

Characteristics of a School of Public Health

To be considered eligible for accreditation review by CEPH, a school of public health shall demonstrate the following characteristics:

- a. The school shall be a part of an institution of higher education that is accredited by a regional accrediting body recognized by the US Department of Education.**
- b. The school and its faculty shall have the same rights, privileges and status as other professional schools that are components of its parent institution.**
- c. The school shall function as a collaboration of disciplines, addressing the health of populations and the community through instruction, research, and service. Using an ecological perspective, the school of public health should provide a special learning environment that supports interdisciplinary communication, promotes a broad intellectual framework for problem-solving, and fosters the development of professional public health concepts and values.**
- d. The school of public health shall maintain an organizational culture that embraces the vision, goals and values common to public health. The school shall maintain this organizational culture through leadership, institutional rewards, and dedication of resources in order to infuse public health values and goals into all aspects of the school's activities.**
- e. The school shall have faculty and other human, physical, financial and learning resources to provide both breadth and depth of educational opportunity in the areas of knowledge basic to public health. As a minimum, the school shall offer the Master of Public Health (MPH) degree in each of the five areas of knowledge basic to public health and a doctoral degree in at least three of the five specified areas of public health knowledge.**
- f. The school shall plan, develop and evaluate its instructional, research and service activities in ways that assure sensitivity to the perceptions and needs of its students and that combines educational excellence with applicability to the world of public health practice.**

These characteristics are evident in the ColoradoSPH. The school is located within a university regionally accredited by the Higher Learning Commission in the North Central region. Reporting directly to the provost CU Anschutz, the dean has the same rights, privileges and status as the deans of other university schools.

The school has ample human, physical, financial and learning resources, though ColoradoSPH, like nearly all institutions of higher learning, is currently dealing with financial challenges in available research funding and support, and the collaboration of the state schools within the structure of the ColoradoSPH results in additional challenges. The school offers professional degrees in the five core areas of public health among its more than 38 concentrations. The school encourages interdisciplinary work across the universities through its 12 programs and centers. The school's environment encourages the embodiment of their articulated values.

ColoradoSPH has the support of the three universities as it increases its enrollment and research. The school continues to develop new evaluation tools and mechanisms to ensure the educational excellence and the public health service to Colorado and to the region and international concerns beyond its borders.

1.0 THE SCHOOL OF PUBLIC HEALTH.

1.1 Mission.

The school shall have a clearly formulated and publicly stated mission with supporting goals, objectives and values.

This criterion is met. The school has a publicly stated mission that was reviewed in 2013 and states:

The mission of the Colorado School of Public Health is to promote the physical, mental, social, and environmental health of people and communities in the Rocky Mountain region and globally. This mission will be accomplished through collaborations in education, population based research, and community service that bring together institutions, agencies, and diverse populations.

The mission statement is congruent with the missions of the three partnering public universities and is augmented by a set of values that guide the school, and an overall and internal vision statement developed as part of a comprehensive five-year strategic planning process. The set of values that guide the school are focused on diversity, health equity, education, collaboration and respect among other important values.

Approved in November 2014, the vision for the school is, "The Colorado School of Public Health will become one of the nation's premier institutions for public health education and research, with top recognition for its work in selected areas and an outstanding reputation for delivering education, training, and service programs that are based in science, proven in practice, and adapted through creativity to meet pressing population health needs." An updated version, which is currently proposed and under review, adds the following: "ColoradoSPH will nurture an internal environment and culture where the School's public health researchers, teachers, service providers, staff and students thrive in pursuit of the School's vision and mission."

The goal of the newly developed vision statements is to reflect an institution that operates within the context of five strategic priorities devised as part of the strategic planning process. The following five strategic priorities, when taken together, reflect the values, vision and mission of the school and identify the specific areas where effort will be focused over the approximately five-year period that began in 2013:

Strategic priority #1: Enhance and facilitate student success in public health learning.

Strategic priority #2: Conduct research and creative activities for maximum impact on population health.

Strategic priority #3: Ensure the financial future of ColoradoSPH in order to sustain and selectively expand programs and services.

Strategic priority #4: Strengthen the school's identity.

Strategic priority #5: Build community bonds through training and service.

Specific action steps, outcomes, responsible parties and status updates are listed in detail in the strategic plan. A synopsis of the plan that lists the mission, values, vision, strategic priorities and goals within those priorities is made available to the public on the school's website. The plan is continuously monitored with review of target dates, which may be adjusted annually as circumstances require, and revisions take place every five years.

Even though the strategic plan is focused primarily on process, the school lists a set of measurable objectives and quantifiable indicators. Some of the objectives and indicators match back to the strategic priorities and goals, while others were developed in response to the prior accreditation site visit. A review of the objectives and indicators did not always demonstrate clear linking between the strategic plan, the objectives and all indicators listed in the self-study document. During the site visit, reviewers heard that this was a grass roots up and top down process rather than outcomes oriented. The leadership team agreed there is a need for more transparency within the strategic priorities, objectives and indicators.

ColoradoSPH has strong administrative support to reflect on its strategic plan and the measureable objectives and targets. Key elements of the school's capacity to assess its performance include an active review of the plan by faculty, students, staff and stakeholders, such as the Dean's Advisory Board, and discussion of targets in executive council meetings, biweekly meetings within the dean's office and meetings involving deans and chairs. Implementing, reviewing and revising the strategic plan are responsibilities that were originally under the purview of the associate dean of strategic development, and currently reside in the Office of the Dean with guidance from the Executive Council.

The self-study document notes that more work could be done on informing the public and public health community of the goals of the school. Particular aims within the strategic plan are selected for implementation before each fiscal year by associate deans and the associate dean for administration and finance. It was noted at the site visit that there are aims within the strategic plan at the school level that have been implemented, and there are others that may need revision to maintain relevancy to current public health issues and the school environment. It was also noted at the site visit that the strategic plan is congruent with parallel strategic planning processes currently underway at CSU and UNC that will soon be released.

1.2 Evaluation and Planning.

The school shall have an explicit process for monitoring and evaluating its overall efforts against its mission, goals and objectives; for assessing the school's effectiveness in serving its various constituencies; and for using evaluation results in ongoing planning and decision making to achieve its mission. As part of the evaluation process, the school must conduct an analytical self-study that analyzes performance against the accreditation criteria.

This criterion is met. ColoradoSPH has in place a number of planning processes and evaluation procedures that allow the school to assess its mission, strategic priorities and goals in relation to education, training, research and service activities. Strategic planning was recently conducted and, in addition to the CEPH self-study for accreditation, evaluations requested by the associate dean for academic affairs and university mandated evaluations from each of the three collaborative institutions are conducted as needed. Evaluation activities take place at multiple levels within the school and on a variety of schedules, depending on the source of the data. Results are continually used to make improvements within the school, such as revising courses based on student course evaluations. For each measurable outcome, data systems used and the responsible parties are listed in the self-study document. Some surveys and assessments, such as a competency assessment accomplished through entry and exit surveys, were fully implemented in 2014.

Information on the performance of the school on each measurable objective described in Criterion 1.1 is provided in the self-study document. In many cases the school meets or exceeds the set targets. While the performance is impressive, the school may benefit from higher targets that can show growth over time. Site visitors noted that some targets are aspirational, while others are capped targets or targets for tracking purposes. Site visitors also learned that the CSU Executive Committee sets their own additional targets before discussing planning with the dean.

The associate dean for academic affairs directed the self-study process. It was initiated in 2013 with a full review and revision of all educational program competencies that was conducted over 18 months by the school's Education and Curriculum Committee. As the self-study document was being written, it was continually reviewed at the dean's biweekly meetings. After completion of the report, ColoradoSPH engaged its constituents, including community stakeholders, students and faculty at each of the three partner campuses in a review of the document. During the site visit the majority of participating students and all participating community partners were familiar with the self-study document and reported involvement in the review process.

1.3 Institutional Environment.

The school shall be an integral part of an accredited institution of higher education and shall have the same level of independence and status accorded to professional schools in that institution.

This criterion is met. The ColoradoSPH is a collaboration of CU Anschutz, CSU and UNC as outlined in a Memorandum of Agreement (MOA) originally set forth in 2007 and updated in 2015. CU Anschutz is the lead institution and administrative center, and the Higher Learning Commission accredits the three participating universities.

The dean of the ColoradoSPH is housed at the CU Anschutz campus and reports to the CU Anschutz provost and vice chancellor of academic and student affairs. The same reporting structure holds for the

deans of the other professional schools on the Anschutz campus. Directors located at CSU and UNC have dotted reporting lines to the ColoradoSPH dean. Within their respective institutions, the directors report to the deans of the CSU Graduate School and UNC College of Natural and Health Sciences. Key ColoradoSPH administrative offices are located on the Anschutz campus.

Organizational charts depict the lines of accountability within and among the three collaborating universities. Each university has representation on key committees that govern the activities of the school. The dean has an active Advisory Board that serves in an advisory capacity on matters related to governance, strategic and financial planning, development and external affairs and other special projects of interest to the dean. The board provides leadership, advocacy and resource development for the school. The board meets three to four times per year, and the chair meets with the dean monthly.

The dean participates in annual budget planning for the CU Anschutz campus and school-specific allocations on equal terms, and with the same degree of autonomy, as that afforded to other schools on the CU Anschutz campus. CSU and UNC are responsible for their own financial budgets and control budget allocations within their respective institutions. The school allocates resources to CSU and UNC based on a tuition-sharing model. The tuition-sharing model is reviewed and approved by the Inter-Institutional Steering Committee (IISC), which is comprised of deans, provosts, presidents and chancellors from each university.

Recruitment of faculty and staff are handled differently across the collaborating universities. At CU Anschutz, requests for new faculty are instituted by a department chair and then reviewed and approved by the dean. At UNC, the director makes requests for new faculty lines to the dean of the College of Natural and Health Sciences before ultimately seeking approval from the provost. CSU does not hire public health faculty directly, but rather identifies existing faculty from CSU departments to participate in the activities of the ColoradoSPH. Faculty interested in participating in the ColoradoSPH indicate their interest through an application. To cover teaching, tuition is transferred to the faculty member's home department according to the approved tuition-sharing model.

The Faculty Senate has responsibility for academic standards and policies, after approval by the Education and Curriculum Committee, which is a standing subcommittee of the Faculty Senate. Additionally, major changes require approval by the Executive Council, and the Board of Regents and the Colorado Commission on Higher Education approve new degrees.

1.4 Organization and Administration.

The school shall provide an organizational setting conducive to public health learning, research and service. The organizational setting shall facilitate interdisciplinary communication, cooperation and collaboration that contribute to achieving the school's public health mission. The organizational structure shall effectively support the work of the school's constituents.

This criterion is met with commentary. The MOA established the collaborative ColoradoSPH in 2007. The MOA provides the framework for the organization and administration of the joint and multiple responsibilities of the three collaborating universities. An Inter-institutional Steering Committee (IISC), consisting of the chancellor of CU Anschutz, the presidents of CSU and UNC, and the provosts from the three institutions, oversees the ongoing collaboration between the universities. The MOA charges the IISC with meeting at least once per year to review the agreement and budget and to evaluate the school. The MOA terms establishing this partnership were updated in 2015.

Through the MOA, CU Anschutz is established as the lead university for the collaboration and overall executive authority rests with the ColoradoSPH dean, who is located on the CU Anschutz campus. Six associate deans (academic affairs, faculty, research, practice, administration and finance, and student affairs) and a director from both CSU and UNC assist the dean. Directors of communication and alumni affairs and human resources further support the dean. Collectively, these individuals constitute the Office of the Dean. External relations are also advanced through a Dean's Advisory Board with a wide range of representation from non-university organizations and perspectives.

The ColoradoSPH is organized in five departments: biostatistics and informatics; community and behavioral health; environmental and occupational health; epidemiology; and health systems, management and policy. A chair leads each department and serves under the direction of the dean. Departments consist of faculty appointed from all three of the partner universities, and faculty oversee both the professional and academic degrees of the school. At CU, all academic programs are based in one of the five departments. At CSU, the academic programs consist of six concentrations with faculty from multiple departments contributing to each. At UNC, the academic programs are within the College of Natural and Health Sciences.

The school offers 24 MPH concentrations: 15 on the CU campus only, five on the CSU campus only, three on the UNC campus only and one offered at both CU and CSU. Of these, six on the CU campus and one on the UNC campus are offerings of global public health in conjunction with another concentration area. Three DrPH programs are offered on the CU campus: community and behavioral health, environmental and occupational health and epidemiology. There are five dual MPH degree programs (four on the CU campus and one on the CSU campus) with several more in development. These professional degree programs are overseen by the school's Education and Curriculum Committee as established through rules of the school and consisting of representatives from each campus of the school. Additionally, each school has agreed to submit proposed curricula through their individual curriculum committees and not institute or alter approved curriculum independently. Students have the opportunity to enroll in elective and core courses on any of the three campuses or online while completing their degrees. Pursuant to the MOA, existing MS and PhD academic degree programs at CSU and UNC are not considered part of the school.

Interdisciplinary coordination, cooperation and collaboration across the departments and campuses are enabled through 11 interdisciplinary centers, which promote the school's efforts in education, research and service to the community. Additionally, CU Anschutz, as the lead university, has an indirect cost sharing policy to facilitate research across departments and schools. Students are encouraged to engage in cross-disciplinary studies both through required courses and inter-professional electives.

The commentary relates to the strategy employed to establish the CSU faculty contribution to the school. Multiple CSU faculty are appointed, effectively in part-time status, to the school's faculty in support of specific programmatic needs. This results in a more complex organizational model, which, according to student comments during the site visit, inhibits a student's ability to develop an academic relationship with faculty since they often do not have a background in the field of public health by degree or experience from which to advise the ColoradoSPH students.

1.5 Governance.

The school administration and faculty shall have clearly defined rights and responsibilities concerning school governance and academic policies. Students shall, where appropriate, have participatory roles in conduct of school and program evaluation procedures, policy setting and decision making.

This criterion is met. Governance of the ColoradoSPH was established pursuant to the MOA and further detailed by the laws and policies of the Colorado University Board of Regents. Within these guidelines each partner in the collaboration has agreed to coordinate faculty, administration, staff and students through shared governance, administrative and committee structures, including types of faculty appointments, promotion and tenure guidelines.

The dean is the chief administrative officer of the school. The dean is authorized to name associate deans, department heads and other staff he/she believes necessary to manage the school. These individuals, along with the campus directors at CSU and UNC, constitute the Executive Team. The chairs of the academic departments collectively act as a committee to resolve issues and develop policies regarding interdepartmental issues.

The Executive Council is the major management and policy body for the school in dealing with routine actions and deliberations. Members include the dean, associate deans, campus directors, department chairs, center directors, two at-large faculty members, the president of the Faculty Senate, the director of human resources, the director of communications and alumni relations and a representative from the Student Council. While any committee at the school may initiate bylaw, policy or procedure changes, these changes are ultimately reviewed by the Executive Council, and any bylaws are additionally reviewed and approved by the Faculty Senate and voting faculty.

The Faculty Senate consists of members from each department, with the number based upon the quantity of faculty in each department. Working with the dean, the Faculty Senate names the chairs of the six standing committees. Members of these committees are appointed in consultation with the dean, committee chairs and department chairs. All standing committees meet at least once annually, and all collaborative partners are represented on all standing committees with the exception of the Space and Facilities Committee, which is only focused on the CU Anschutz campus. Other campuses follow their own space allocation procedures.

The six standing committees include the following:

Admissions Committee: This committee is responsible for developing policies and procedures for admission to the school and the professional degree programs. Operations, enrollment, marketing, recruitment and application management are performed at the school level through the Office of Student Affairs. Additionally, each department has its own admissions committee that reviews applications and recommendations for admissions. The evaluation and admission decision processes are managed at the department level at CU and at the campus level at CSU and UNC. The associate dean for student affairs is an ex-officio member of this committee.

Appointments, Promotion and Tenure Committee (APT): This committee is responsible for reviewing nominations for appointment, reappointment, promotion or tenure at the professor and associate professor ranks; for making recommendations to the dean in support or objection to those actions; for reviewing and updating the APT policies and criteria; and for assuring compliance with policies and procedures of the collaborating universities. APT is supported by Department Appointment, Promotion and Tenure Committees (DAPTCOs). DAPTCOs perform first level review of dossiers for promotion or tenure at the professor, associate professor and assistant professor ranks.

Education and Curriculum Committee (ECC): This committee is responsible for the design, implementation, evaluation and ongoing development of curriculum for the school. Each department and partner campus is represented on the ECC, including non-voting student and community members. Proposed new curriculum and curriculum changes originate at the department or program level and are reviewed and approved by the ECC. The ECC is also charged with assuring that core coursework and competencies are consistent across partner institutions.

Research Committee: This committee provides oversight, review and recommendations about the development, progress and priorities for research conducted by the faculty and students of the school in an advisory capacity to the associate dean for research. Each department and partner campus is represented on the Research Committee.

Space and Facilities Committee: This committee advises and provides information to the dean on the allocation and/or reallocation of the school's space at CU Anschutz; proposes policies on space allocation and reallocation; reviews space usage and projects; and assists in the development of future space requirements.

Scholarships and Awards Committee: This committee develops procedures for awarding scholarships and awards to students, faculty and staff; reviews applications for scholarships and awards; selects award recipients; and initiates publicity regarding scholarships and awards. The membership is broadly representative of the school, including members from each of the partner campuses.

The school also has a Student Leadership Council (SLC) composed of the president and vice president of the student councils on each of the three campuses. The SLC provides opportunity for student input into the committees and processes of the school.

Per the MOA, each partner university is responsible for its own financial affairs and has the authority to control budget and resource allocation. Budgets for each institution's faculty time, staff time and other expenses (proportionate to estimated student credit hours at each university) are shared by each university and discussed with the associate dean of administration and finance. With additional input from department chairs, the Faculty Senate and Executive Council, an annual budget with two-year forward projections is established. The Executive Council oversees budget management on a quarterly basis. The IISC also reviews the school's budget planning and performance at least twice per year.

The MOA allows for CU, on behalf of ColoradoSPH, to confer the professional degrees (MPH, DrPH), with each partnering university's signature and seal shown on the diploma. Final recommendations about students' eligibility for graduation is made by the dean of the school or his designee, who forwards the recommendation to the CU Board of Regents, CSU Board of Governors and UNC Board of Trustees. The university presidents and chairs of the respective governing boards all sign the diploma, as does the Chancellor of CU Anschutz (as lead institution) and the Dean of ColoradoSPH.

The department chair (or center director, or principal investigator responsible for hiring), in consultation with departmental faculty, is responsible for determining the need for a new faculty member. Hiring decisions in the tenure track, regardless of rank, require approval of both the department chair and the dean before a search can be opened. In accordance with the MOA, campus directors at the partner universities are responsible for proposing faculty appointments within ColoradoSPH. Department chairs (together with departmental faculty), the APT committee and the dean review proposed appointments and promotions.

Given that these faculty members have undergone review by their home universities, the school process is typically supportive and expedited.

Rights and obligations for staff, faculty and students are set forth in bylaws adopted by voting faculty on March 14, 2008. The bylaws recently underwent revision, with a faculty vote conducted in September 2015.

1.6 Fiscal Resources.

The school shall have financial resources adequate to fulfill its stated mission and goals, and its instructional, research and service objectives.

This criterion is met. Table 1 presents the school's sources of funds and expenditures by major category for the past five years, 2010-2011 to 2014-2015. The school's revenue is based on eight sources: 1) tuition and fees, 2) state appropriation, 3) university funds, 4) grants and contracts, 5) indirect cost recovery (ICR), 6) endowment and gifts, 7) interest on reserves and 8) transfers from reserves. The school's faculty have been productive generating increased revenue streams from tuition and extramurally-funded research. In the past, 80% of the ICR went to CU Anschutz and 20% went to the ColoradoSPH. However, due to bonds on construction at the CU Anschutz campus, the percentage is now 90% to CU Anschutz with 10% to the school (of that 10%, 90% is allocated to the principal investigator's department or center and 10% to the school's central administration). Per the MOA, CSU and UNC ICR does not go to the ColoradoSPH. There was an increased ICR in the early years of the school as a result of growth in the research enterprise. More recently, the decrease in ICR is due to shifts in the research portfolio to lower ICR funding sources, such as pilot grants, foundation grants and other non-governmental funding sources, as well as university policies that penalize units that show decreases in total ICR generated.

For the budgeting process, the dean proposes and negotiates funding for operations, new initiatives or expansions and allocations from revenue with the CU Anschutz chief financial officer, provost and CU Anschutz chancellor. Each university holds budgeted revenue centrally, and operational units are budgeted as cost centers. Units receive an expense budget allocation based on internal budgets submitted from departments and schools supporting ColoradoSPH. Budgeting is completed in the spring of each year. Revenue shortages are addressed through reserves and development funds from gifts and university commitments. Last year, the school received a large sum from the reserves to cover costs, primarily from contributions of several Colorado-based foundations that provided funding for the startup of the school. With the decrease in funds, the CU Anschutz chancellor has recently committed an additional \$525,000 in one-time funds, over the next three years, to assist in funding of ColoradoSPH central administration as the student body grows.

The school allocates resources on forecasted expenditures and the tuition-sharing model that is described in the MOA, and the dean and the Executive Council review the projections for other resources including

the following: gift revenue, ICR earnings, community grant support and endowment earnings. CSU and UNC fund their programs and then receive tuition revenue transfers from ColoradoSPH that reimburse a portion of those costs eight to 10 weeks into the semester. Twenty percent of the tuition revenue is devoted to covering ColoradoSPH central administration. The tuition-sharing model in the current FY2016 is:

- Student home campus 35%,
- Teaching faculty home campus 35%,
- Facility where course is taught 10%, and
- ColoradoSPH central administration 20%.

The tuition-sharing model is reviewed and approved annually by the Inter-Institutional Steering Committee.

Expenses are based on the strategic needs for the next fiscal year, historical compensation and operational costs. As per accounting procedures in place at the university level, the funds are shown in Table 1 as allocated in the year they are spent. The variations in the level of funding are reflections of variations in the early years or expenditures of university funds in relation to gift funds intended to support school start-up. The school anticipates the revenue will stabilize at current levels for the next few years.

Currently, there are few alumni of the school, and there is not a tradition of giving support to the school. However, the school is beginning to cultivate donors through the CU Foundation, and the school is developing materials for solicitation that are expected by year-end. The school is working to restore previous reductions in support for faculty teaching and service efforts by fiscal year 2016-17.

As stated in the self-study and restated by the tri-campus leadership, the school receives little net state funding and primarily operates on tuition and research revenue. The university also has a tuition benefit to employees allowing them to take up to nine credits per year without paying tuition, and there is not a reimbursement to the school for these credits. Employees have been drawn to the ColoradoSPH courses, and the lost tuition revenue has been estimated to be \$392,551 in 2014-15.

The school currently has sufficient resources to fulfill its mission. The tri-campus leadership, individually and collectively, support the ColoradoSPH. That support includes the necessary fiscal resources to keep the school in a sound financial position. The leadership noted that the school has exceeded expectations in student enrollment, faculty research and connections with the community. The CU Anschutz chancellor said that the school is well positioned financially for the future.

Table 1. Sources of Funds and Expenditures by Major Category, Fiscal Years 2010-11 to 2014-15

Source of Funds		FY10-11	FY11-12	FY12-13	FY13-14	FY14-15
Tuition & Fees ¹	Univ. of Colorado	\$3,026,029	\$3,623,622	\$3,978,059	\$4,646,666	\$5,650,015
	Colorado State Univ.	\$558,900	\$750,990	\$819,998	\$1,215,093	\$1,536,685
	Univ. of Northern Colorado	\$83,096	\$288,952	\$396,615	\$458,639	\$377,072
State Appropriation		\$843,699	\$860,474	\$1,637,173	\$1,883,436	\$4,148,705
University Funds		\$ 420,721	\$873,298	\$362,807	\$356,742	\$3,770,867
Grants/Contracts ²		\$21,421,071	\$24,374,889	\$26,837,501	\$26,657,054	\$27,430,225
Indirect Cost Recovery		\$6,681,651	\$7,456,225	\$7,372,828	\$6,533,203	\$6,962,875
Endowment and Gifts		\$1,486,030	\$1,770,226	\$880,330	\$1,366,000	\$1,509,067
Interest on Reserves		\$3,899	\$1,912	\$872	\$822	\$451
Transfer from (to) Reserves		(\$860,225)	\$439,585	\$1,850,476	\$839,851	(\$1,548,130)
Total		\$33,664,871	\$40,440,174	\$44,136,659	\$43,957,507	\$49,837,832
Use of Funds						
Faculty Salaries & Benefits		\$15,152,521	\$18,350,232	\$18,948,874	\$18,007,159	\$19,002,051
Staff Salaries & Benefits		\$3,776,877	\$4,695,123	\$6,234,907	\$6,204,662	\$6,757,232
Operations		\$7,561,386	\$9,287,146	\$9,770,588	\$11,097,483	\$9,349,896
Travel		\$958,980	\$1,278,093	\$1,286,794	\$1,026,118	\$901,186
Student Support ³		\$138,192	\$135,130	\$213,286	\$267,643	\$680,233
Tuition transfer to CSU and UNC ¹		\$597,782	\$752,874	\$1,010,469	\$1,401,023	\$1,501,965
University Tax ⁴		\$5,479,132	\$5,941,576	\$6,671,741	\$5,953,419	\$11,645,270
Total		\$33,664,871	\$40,440,174	\$44,136,659	\$43,957,507	\$49,837,832

¹ Tuition and fees are the only sources of funds that flow through the lead intuition. They are offset by the "tuition transfer" use category.

² Amount to CU Anschutz ColoradoSPH only; excludes grants in other schools and partner universities

³ Scholarships to students. The university also offers a tuition waiver benefit for employees. The cost for these awards is classified as a benefit and shown in the respective salary & benefits lines.

⁴ Includes School's portion of university's central services allocated revenue and expenses.

1.7 Faculty and Other Resources.

The school shall have personnel and other resources adequate to fulfill its stated mission and goals, and its instructional, research and service objectives.

This criterion is met. Adequate faculty resources are available in each core area at the lead institution, as required. Faculty head counts meet the minimum requirements but are low in environmental and occupational health as well as in health systems management and policy. However, the student-faculty ratios (SFR) are also low, as many students in these areas enroll part-time. At CSU and UNC, the faculty resources and SFRs vary more widely. Overall in 2015 CSU has an SFR of 10.1, but the SFR ranges from 15.4 in the concentration in animals, people and the environment to 2.5 in public health nutrition. In 2015 the UNC concentration in community health education has an SFR of 4.8 with a headcount of 5 faculty and an FTE of 3.2 (faculty headcount and FTE were the same in 2014), and a headcount of 21 students (30 in 2014) but an FTE of 15.3 (18.4 in 2014). Over the past three years, faculty resources have remained fairly stable.

ColoradoSPH involves many faculty from other schools on the CU Anschutz campus in their activities. The school sees this approach as the best way to balance the need for more faculty to support growth, while not overextending commitments by hiring more primary faculty. UNC has a small faculty, but the faculty workload model ensures that the majority of faculty time is spent in teaching rather than research. CSU faculty are drawn from other university schools and departments and not hired specifically for the public health concentrations.

The number of staff members supporting the school is high with a head count of 80 (78.5 FTE). Staffing is primarily allocated to support the school's centers (53 FTE). There are 10 centers that hire staff to support their activities.

There is a manager of career and employer relations based at the lead institution, but he supports students across all participating universities. He travels regularly to CSU and UNC to work with students, who highly praised his efforts and commitment. On the CU Anschutz campus, there are two full-time grants managers to support faculty research. There are state-of-the-art classrooms with moveable tables and chairs, and educational technology to support distance learning.

Computing resources, including a Janus supercomputer, are available through and supported by the university's Office of Information Technology. There are initiatives underway to develop more extensive computing resources across the campus. As part of these initiatives, a cost-sharing plan will also be developed. Most of the research centers have their own computing resources. Faculty and students report having sufficient access to computing resources. Students were also highly satisfied with support from the Office of Information Technology.

There are major libraries on all three campuses. Students reported being very satisfied with the libraries regardless of their home institutions.

1.8 Diversity.

The school shall demonstrate a commitment to diversity and shall evidence an ongoing practice of cultural competence in learning, research and service practices.

This criterion is met with commentary. Pursuant to the MOA, “Developing, implementing and evaluating plans and outcomes for enhancement of student and faculty diversity and inclusiveness” represents a foundational principle of the ColoradoSPH. With this purpose in mind, the school has established a comprehensive plan for “Inclusion, Diversity and Health Equity”. The plan was developed through a process including representatives from ColoradoSPH faculty, staff, students, alumni, public health practice partners and the CU Anschutz associate vice chancellor for diversity and inclusion. The Faculty Senate, Student Council and Executive Council approved the plan in March of 2015.

The plan incorporates the mission, vision and values of the school including the statement that “ColoradoSPH embraces inclusion, diversity and health equity”. The plan further calls for efforts to:

- Address health disparities and discrimination of all types,
- Recognize and eliminate stereotyping, and
- Integrate cultural proficiency, diversity and health equity education and training throughout the curriculum.

The plan establishes five goals:

- Create and maintain a culturally proficient ColoradoSPH institution through the policies and procedures.
- Create and sustain an environment that fosters input mechanisms to include a wide diversity of broad perspectives from a variety of non-academic and academic communities and that incorporates the perspective of diverse public groups into the school's work.
- Ensure that the curriculum at the ColoradoSPH carefully and prominently features teaching material that addresses diversity, inclusion, cultural proficiency and the achievement of health equity.
- Facilitate the conduct of research addressing health equity and health disparities issues.
- Promote public health practice and scholarship that addresses diversity, inclusion, cultural proficiency and health equity.

The school has identified racial/ethnic minorities (African American/Black, Hispanic/Latino, Asian, Pacific Islander, American Indian and Alaska Native), students from rural backgrounds, first-generation college graduates and international students as under-represented populations. Further, and as part of these goals, the dean is charged with establishing and appointing the leaders for a Diversity and Inclusion Working Group. Membership will consist of individuals representing each department as well as each partner school. The group is required to produce an annual report assessing, evaluating and identifying ongoing strategies for diversity and inclusion.

During the spring of 2015 the school conducted a Social Climate Survey that was disseminated to faculty, staff and students of all three campuses. 370 individuals responded including 189 students, 120 faculty and 50 staff. Results of the survey indicate a greater than 90% agreement with statements regarding a welcoming and friendly environment that places a priority on diversity and cultural understanding. However, respondents expressed frustration with the process of reporting instances of discrimination as well as apparent stereotyping of individuals in the minority.

The school also participates in university diversity programs including the Chancellor's Diversity Recognition Awards, Rosa Parks Diversity Awards, President's Diversity Awards and CSU Diversity Awards.

The school actively recruits a diverse student body and focuses on the retention and graduation of those students. Current efforts include: collaborating with in-state undergraduate programs that have diverse students, developing and supporting programs that encourage underrepresented youth to pursue health sciences, and outreach to McNair Scholars, TRIO, and Pre-Health Science undergraduates. The school's program evaluation coordinator and the Diversity and Inclusion Workgroup review outcome measures for these efforts. Successful measures for the three years reported in the self-study include ratings on health equity courses (goal of 5.0/7.0 with outcomes of 5.7, 5.8 and 5.7 respectively), graduation rates of MPH underserved students within 5 years of enrollment (goal of >80% with outcomes of 100%, 88% and 92% respectively), graduation rates of underserved PhD students within 7 years of enrollment (goal of >80% with an outcome of 100% in 2014-15, the only year available), and job placement rates of underserved graduates (goal of >90% with outcomes of 100%, 95% and 100% respectively). Unsuccessful measures for the three years reported include enrolled racial or ethnic minority students (goal of 30% with outcomes of 21%, 23% and 26% respectively), graduation rates of MS underserved graduates within 5 years of enrollment (goal of >80% with outcomes of 67% in 2014-2015, the only year reported) and scholarships awarded to students from underserved backgrounds (goal of \$200,000 with outcomes of \$55,549, \$105,578 and \$109,414 respectively). During the site visit, reviewers heard from administrators that some of the goals were aspirational, and the school has made progress in those areas such as enrollment of racial or ethnic minority students.

The school implemented a new student orientation in fall 2014 and 2015 that includes a theatrical workshop on cultural issues in care equity. Several MPH and DrPH core courses address health disparities, diversity and cultural humility (CBHS 6610, CBHS 6611, CBHB 5090, HESC 5560, and PBHC 5500), and beginning in the fall 2014 a question was added to course evaluations to track the incorporation of health equity, diversity and inclusion principles into each ColoradoSPH class (results indicated that 67% of courses

address these issues to some degree). Other courses in place to address health equity include HSMP 6602 at CU, CHBH 5530 at UNC and ETST 5100 at CSU.

The commentary relates to the need to demonstrate to students and the community the implementation of the Inclusion, Diversity and Health Equity plan and the achievement of results. Participants in site visit meetings commented that the school has previously produced plans for diversity. However, they expressed concern that little change has been observed in the overall makeup of the student body or faculty. For example, a goal of 30% is set for racial or ethnic minority applications, and the target has yet to be achieved (21% in 2012-13, 23% in 2013-14, and 26% in 2014-15). Funding constraints for the summer pipeline programs, higher than desired tuition and limited scholarships were cited as reasons for not meeting plan goals, but means of achieving them were not changed despite continued funding difficulties.

2.0 INSTRUCTIONAL PROGRAMS.

2.1 Degree Offerings.

The school shall offer instructional programs reflecting its stated mission and goals, leading to the Master of Public Health (MPH) or equivalent professional master's degree in at least the five areas of knowledge basic to public health. The school may offer other degrees, professional and academic, and other areas of specialization, if consistent with its mission and resources.

This criterion is met. Table 2 presents the school's professional and academic degree offerings. The school offers the MPH in twenty-four concentrations, including a generalist/custom concentration, and among them are the five core areas of public health. The MPH concentration in Leadership and Public Health Practice (LPH) is primarily offered online with in-person meetings required for two to three days each semester in the first year of the program. The MPH can be earned in combination with another professional degree to encourage work across different disciplines. There are five joint/dual degrees offered in combination with the MPH: veterinary medicine, medicine, nursing practice, public administration and urban and regional planning. A new MPH dual degree is to be offered jointly with an MPH and a master's in social work (MSW) and planned for the first students to matriculate in 2016-17. It will be offered with both the University of Denver (DU) and CSU; and three other joint/dual degrees are in the development stage (doctor of pharmacy, doctor of dental surgery, and Juris Doctor). CSU also offers an MPH in cooperation with the Peace Corps Master's International Program, which allows students to use their Peace Corps experience to satisfy practice requirements.

The MPH program is designed for completion in two years full-time or up to five years part-time. Some of the joint/dual degrees require different credentials and applicants must apply and be accepted to both programs prior to being admitted. Beyond the core requirements (courses, practice and capstone), the concentration specific requirements are listed on the school's website for all degrees and concentrations.

The school offers the academic Master of Science (MS) degree through the CU Anschutz Graduate School. The MS is offered in biostatistics; epidemiology; and health services research, policy and administration. The school also offers three PhD programs in biostatistics, epidemiology and health services research, and DrPH concentrations in community and behavioral health, environmental and occupational health and epidemiology.

There is sufficient depth of training in public health in each degree program and concentration. Similar core courses at the collaborating institutions have been working on consistency in content (biostatistics and epidemiology at CSU and UNC) and coordination has taken place with the replacement of one instructor when a course was not fulfilling the requirements. The core courses are accepted at each institution that is part of the ColoradoSPH.

Table 2. Instructional Matrix			
	Location	Type of Program	
		Academic	Professional
Master's Degrees			
Concentration/Specialization			
Animals, People and Environment	CSU		MPH
Biostatistics	CU	MS	MPH
Community and Behavioral Health	CU		MPH
Community Health Education	UNC		MPH
Community Health Education plus Healthy Aging	UNC		MPH
Environmental and Occupational Health	CU		MPH
Epidemiology	CU and CSU (MS-CU)	MS	MPH
Global Health and Health Disparities	CSU		MPH
Global Public Health plus Applied Biostatistics	CU		MPH
Global Public Health plus Community and Behavioral Health	CU		MPH
Global Public Health plus Community Health Education	UNC		MPH
Global Public Health plus Environmental and Occupational Health	CU		MPH
Global Public Health plus Epidemiology	CU		MPH
Global Public Health plus Health Systems, Management and Policy	CU		MPH
Global Public Health plus Maternal and Child Health	CU		MPH
Health Communications	CSU		MPH
Health Services Research	CU	MS	MPH

Table 2. Instructional Matrix			
	Location	Type of Program	
		Academic	Professional
Health Systems, Management and Policy	CU		MPH
Health Systems and Management	CU		MPH
Leadership and Public Health Practice (online)	CU		MPH
Maternal and Child Health	CU		MPH
Physical Activity and Healthy Lifestyles	CSU		MPH
Public Health Nutrition	CSU		MPH
Generalist/Custom	CU		MPH
Doctoral Degrees			
Specialization/Concentration/Focus Area			
Biostatistics	CU	PhD	
Community and Behavioral Health	CU		DrPH
Environmental and Occupational Health	CU		DrPH
Epidemiology	CU	PhD	DrPH
Health Services Research	CU	PhD	
Dual Degrees			
Secondary Area			
Medicine	CU		MD/MPH
Nursing Practice	CU		DNP/MPH
Public Administration	CU		MPA/MPH
Urban and Regional Planning	CU		MURP/MPH
Veterinary Medicine	CSU		DVM/MPH
Dental Surgery	CU (in development)		DDS/MPH
Juris Doctor	CU (in development)		JD/MPH
Pharmacy	CU (in development)		PharmD/MPH
Social Work	CU&DU CSU (fall 2016-17)		MSW/MPH

2.2 Program Length.

An MPH degree program or equivalent professional public health master's degree must be at least 42 semester-credit units in length.

This criterion is met. The school uses the equivalent of one in-class period of 50 minutes per week for a 15-week semester as one credit hour including two to three hours of time outside the classroom per week. For the proposed MSW/MPH dual degree with the University of Denver (DU), DU is on the quarter system and one credit hour is the equivalent of one hour per week for ten weeks and will be converted to a semester credit at a rate of 0.667.

All MPH concentrations require a minimum of 42 credit hours. The 42 credits are comprised of 17 credits of required core courses for all students regardless of concentration. Students are also required to do a minimum of 12 credits for any specific concentration, the two-credit Foundations in Public Health course, a two-credit practicum and a two-credit capstone project. The balance of credits is comprised of electives. No MPH degrees were awarded for fewer than 42 credits in the past three years.

2.3 Public Health Core Knowledge.

All graduate professional degree public health students must complete sufficient coursework to attain depth and breadth in the five core areas of public health knowledge.

This criterion is met with commentary. As described in Table 3, MPH students on all three campuses are required to take courses in each of the five core areas of public health knowledge. Additionally, all students are expected to take a two-hour overview course, Foundations in Public Health.

Core competencies achieve equivalency across the three campuses through the following ongoing collaborative process:

- A committee, comprised of the course instructors for each of the core courses, the concentration director for the core area and, in some cases, the associate dean for academic affairs, gather core course syllabi from the three campuses and distribute them to committee members for analysis.
- The committee provides each core course instructor with a review form listing the essential competencies and asking her/him to assess the course's coverage of each competency. Instructors were asked to include core competencies and indicate whether they:
 - Significantly discuss competencies in class,
 - Incorporate competencies into homework or group projects, or
 - Include competencies in tests or individual projects.
- Differences in the degree to which each competency was integrated into each course were discussed in a meeting of the committee. Where significant and unacceptable differences in coverage existed across courses, instructors agreed to enhance their approach to addressing the relevant competency.

DrPH students generally enter the doctoral program with an MPH and have existing core public health knowledge. However, if a student enters with a master's degree in a different area, the student's previous graduate coursework is reviewed to determine gaps. If there are gaps, the student takes the necessary MPH core courses in any areas not explicitly covered in their prior training. All DrPH students also take four

credits of the DrPH Seminar (one credit each semester for their first four semesters). The seminar is an integrative course addressing DrPH core competencies in public health.

The commentary relates to the continuing need to align curricular content and competency focus across the three campuses. As noted by the school in the self-study document, and by administrators at the site visit, student evaluations continue to indicate curricular variation in content and quality across campuses. This observation was reinforced during site visit discussions with students who said some course evaluations, indicating poor content and quality of courses, had occurred repeatedly. Additional plans assuring equivalence of course syllabi content and quality need to be developed to address the consistency of curriculum across the three campuses.

Table 3. Courses to Address Core Competencies				
Core area	UCD	UNC	CSU	Credit Hours
Biostatistics ¹	BIOS 6601 Offered: Summer, Fall, (Online in Summer, Fall)	CHBH 6120 Offered: Spring	EDRM 6060 Offered: Fall, Spring or VSCS 6620 Offered: Spring, selected years	3
Epidemiology	EPI 6630 Offered: Fall, Spring (Online in Spring)	CHBH 6200 Offered: Fall	ERHS 5320 Offered: Fall	3
Environmental Health	EHOH 6614 Offered: Fall, Spring (Online in Spring)	CHBH 5500 Offered: Spring	ERHS 5200 Offered: Fall	3
Community and Behavioral Health ²	CBHS 6610 Offered: Summer, Spring (Online in Summer)	CHBH 5090 Offered: Fall	HESC 5560 Offered: Fall or PBHC 5500 Offered: Fall, Spring	3
Health Care Systems ³	HSMP 6601 Offered: Summer, Spring (Online in Summer)	CHBH 6350 Offered: Fall	HSMP 6601 Offered through UCD at CSU campus in Spring	3
Foundations in Public Health	PUBH 6600 Offered: Summer, Fall (Online in Summer, Fall, Spring)	PUBH 6600 Offered through CU Denver online in Summer, Fall, Spring	PBHC 5160 Offered: Fall	2

¹ Students may opt to complete a higher-level Introduction to Biostatistics, BIOS 6611

² Students in Community and Behavioral Health (CBH and MCH concentrations) take CBHS 6611

³ Students in MPH concentrations in Health Systems, Management and Policy take a series of courses that include the components of HSMP 6601

2.4 Practical Skills.

All graduate professional public health degree students must develop skills in basic public health concepts and demonstrate the application of these concepts through a practice experience that is relevant to students' areas of specialization.

This criterion is met. All ColoradoSPH MPH and DrPH students must complete an approved, supervised practicum of at least 120 hours for the MPH and 240 hours for the DrPH in which the student demonstrates competencies and integrates public health knowledge. The practicum is designed to provide students opportunities to apply skills learned in the classroom and for better understanding of the professional practice of public health while contributing to the needs of an organization. Some students exceed the minimum number of hours, particularly UNC's MPH students, who complete a practicum of 150 hours. There are practicum and capstone experience competencies. In addition to eight competencies that all students are expected to address in the practicum, each student selects competencies specific to his/her project that are approved by the practice-based learning (PBL) team and the faculty advisor.

Prior to completing a practicum, students must take either an in-person or online self-guided course that outlines the requirements, which include log books and reflection activities at designated intervals; an organizational overview paper; a midpoint evaluation with the preceptor; a final evaluation with the preceptor; a student evaluation of the process and host site; and a practicum portfolio that provides an overview and self-reflection of the experience. Prior to starting their practicum, students must also take HIPAA and human subjects protection training, develop a site placement agreement and design a learning plan. The school does not grant waivers for the practicum experience.

ColoradoSPH chooses practicum host sites based on students' interests and career goals and the ability of the mentor and agency to provide a supportive learning environment. Students select the site placement by working with the school's designated PBL team made up of a faculty director of practice-based learning (CU Anschutz) and two PBL coordinators (CSU/UNC). The PBL Team and the concentration director or academic advisor provide approval of the site.

Designated site preceptors supervise student work at the practicum sites. Preceptors are approved based on their area of expertise, desire to work with a student, willingness to commit time to mentor the student, experience in public health practice and appropriate educational background. A faculty member may also serve as a preceptor, if an appropriate community-based project on which the faculty member collaborates or leads is available. All preceptors are provided information on the requirements of the practicum, and the PBL team often holds meetings for orientation to the program and ongoing support. The school is currently developing an online training for preceptors. Host sites complete an educational affiliation agreement with the school. Currently, there are over 100 approved host sites.

The DrPH practicum differs from the MPH practicum in both the number of hours (240) required as well as the level of responsibility of the student within their practicum experience.

In the years 2012-2015 there has been one occupational medicine (OM) resident completing the MPH during residency (2012-14). During the period July 1, 2012-June 30, 2015, seven general preventive medicine and public health (PM) residents completed the MPH degree during their residencies. The Accreditation Council for Graduate Medical Education (ACGME) accredits the residency programs in Occupational Medicine and in General Preventive Medicine and Public Health.

Students at the site visit reported satisfaction with their practicum experiences and ease of finding placements that were relevant to their field of study. They also appreciated the assistance by department staff and faculty with setting up the practicum. Some students noted the desire to have more sites for practicums available in the ColoradoSPH Connect system, but they did say that if they found their own sites for a practicum, the school was very supportive in helping establish the practicum.

Standardized documentation for how well students attain competencies during the practicum would be helpful.

2.5 Culminating Experience.

All graduate professional degree programs, both professional public health and other professional degree programs, identified in the instructional matrix shall assure that each student demonstrates skills and integration of knowledge through a culminating experience.

This criterion is met. All MPH students complete a capstone requirement consisting of a one-credit semester course focused on methods, products/results and public health significance of public health projects undertaken. Customarily, these projects are based on previously completed practicum projects and must address seven cross-disciplinary competencies in addition to competencies specific to the student's concentration. The course concludes with MPH students from all three campuses providing an oral presentation of their experience, a poster session and a final written report. The capstone requires a minimum of 60 hours of project work. Students have a set of competencies for their capstone and specific competencies related to their professional goals and interests that are selected after a review of their personal strengths and gaps. The student's faculty advisor approves the competencies.

DrPH students complete a dissertation as their culminating experience. The dissertation is of an applied nature and must demonstrate the student's ability to conduct independent research on a contemporary public health issue. Students are expected to examine and analyze a problem in public health practice that has readily identifiable beneficiaries and constituents. The dissertation committee works with the student to identify appropriate areas of investigation.

The project involves a written product that comprehensively addresses, generates and/or interprets and evaluates knowledge applicable to public health practice. It will typically take one of two forms: (1) a unified traditional dissertation, or (2) three publishable papers plus, at a minimum, introduction and conclusion chapters.

During the site visit, reviewers met with community members and representatives from agencies that have been involved in hosting student practice and capstone experiences. They spoke of the importance of these programs in training students to be prepared for the market place and for agencies to be able to hire more qualified staff. They explained that in the past, very few employees in the public health workforce had the necessary training for the job, and that they are now able to hire MPH graduates. The result is a trickle down to where directors are often required to have an MPH as a minimum.

Through their review of guidelines and capstone abstracts, papers and posters, site visitors were able to validate that products were integrative and appropriately rigorous to validate student's overall knowledge and skills.

2.6 Required Competencies.

For each degree program and area of specialization within each program identified in the instructional matrix, there shall be clearly stated competencies that guide the development of degree programs. The school must identify competencies for graduate professional public health, other professional and academic degree programs and specializations at all levels (bachelor's, master's and doctoral).

This criterion is met with commentary. MPH students are expected to attain a total of 59 core competencies that address core public health knowledge, as well as concentration specific competencies addressing knowledge and skills required for successful professional practice in that area. The self-study document provides matrices that map all core and concentration-specific competencies to designated coursework, and each student works with his or her advisor to select a subset of competencies that will be addressed in the practicum and culminating experience. Each of the other degree programs (dual degree programs, MS, PhD and DrPH) identifies an additional set of competencies.

Faculty committees, established for each degree, core area and concentration or focus area, recently reviewed and updated competencies. Within each committee, faculty revised competencies considering the content areas for the Certification in Public Health (CPH) exam, the Association of Schools and Programs in Public Health's recommendations, feedback from employers and public health practitioners, and their own knowledge of advances and changes in the field. Department faculty from all three campuses and the Education and Curriculum Committee (ECC) approved revisions, with plans to review competencies every five years.

The MS/PhD competencies were developed within the relevant departments by faculty and submitted to the ECC for approval. Once approved, they were submitted to the CU Anschutz Graduate School that monitors learning outcomes for each program within its purview.

Competencies are available on the school website, in each program handbook and on all course syllabi. Incoming students are alerted to the competencies in a baseline survey that is completed upon entry into the program.

The school is active in collecting data from stakeholders external to the school. The school conducted employer interviews in 2015, and the manager of career and employer relations engages in outreach with potential employers to gather data on the needs of the field and to determine when updates of competency sets are warranted. Administrators and faculty are engaged in practice and research activities that keep them current in their fields. The PBL team and Office of Academic Affairs hold preceptor meetings to discuss student progress on competencies and any gaps in attainment. UNC has a community advisory board that advises the program on educational offerings and annually reviews program competencies. The school proposes to institute key informant interviews with employers every two years to ensure responsiveness to the needs of the workforce.

The commentary relates to the expected low level of learning achievement stated in many of the competencies for graduate students. This is specifically applicable to the competencies associated with the capstone.

Commentary also relates to the process by which information from preceptors, alumni, the practice office workforce surveys and external advisors is used to update and align competencies with the needs of the field. There is little evidence linking the faculty's research and practice connections to the workforce to the revision of competencies. During the site visit, faculty and administrators discussed several different methods of gathering information on competencies from alumni and preceptors and the associate dean for academic affairs did conduct key informant interviews with employers, but did not know how the information was processed or used for competency development.

2.7 Assessment Procedures.

There shall be procedures for assessing and documenting the extent to which each professional public health, other professional and academic degree student has demonstrated achievement of the competencies defined for his or her degree program and area of concentration.

This criterion is met with commentary. For the MPH, assessment is largely accomplished through grades in required courses, student self-assessment and completion of practicum and capstone experiences. In the capstone, 10 specific competencies are pre-determined for all students, and in addition, students choose five to eight competencies specific to their projects, which are approved by their faculty advisors.

At the conclusion of the capstone project, faculty advisors and preceptors rate competency attainment for the 10 pre-determined competencies, and students self-rate competency attainment at the beginning and at the end of the educational experience for the project specific competencies. Students present their work both orally and in a poster. Competency attainment, the student's performance in the capstone course, and the student's presentations are all factored into a grade for the capstone experience.

Students in MS, DrPH and PhD programs complete a thesis or dissertation and receive feedback from committee members on the attainment of competencies on an ongoing basis. Because the MS/PhD programs are administratively housed in the CU Anschutz Graduate School, their various activities (eg, preliminary and comprehensive exams, dissertation defense) are tracked and serve as evidence of attainment of competencies or learning outcomes (as designated by the Graduate School). PhD students meet with their committees twice per year once they have passed comprehensive exams, at which time progress in the goals of the program are reviewed. DrPH students are reviewed by a five-member committee on attainment of competencies through annual reviews, and students must demonstrate progress before moving on to the dissertation phase.

The school conducts incoming and exit surveys to track a student's assessment of their mastery of competencies before and after completing the program. The school tries to maximize response rates to these surveys by requiring completion of the incoming survey before students are allowed to register for courses and by not allowing receipt of the diploma until completion of the exit survey. Questions were recently added to surveys for students to evaluate themselves on competencies. Limited data are available on attainment of competencies, but the school felt that the data has already proven useful to identify areas for improvement (eg, in environmental and occupational health). Survey data are supplemented by information gathered by faculty communications with alumni and through contact with the manager of career and employer relations, who does outreach with preceptors and employers.

The school also collects data from various stakeholders related to competencies. Alumni surveys are conducted at one, four, seven and ten year's post-graduation. The most recent survey (spring 2015) includes more specific information about attainment of competencies in addition to the detailed data that are collected related to preparation for careers. UNC recently consulted its community advisory board that recommended additional specific knowledge and skills needed for MPH graduates. The associate dean for academic affairs conducted a focus group in spring 2015 of 16 graduates to discuss strengths and gaps in the program.

MPH students must earn a minimum grade of B- in every core and required course for their concentration and attain a minimum GPA of 3.0 to graduate. Each semester, students with a GPA below 3.0 are identified

by the associate dean for academic affairs who notifies them, their advisors and their department chairs. The students and academic advisors develop a plan to move toward success in their program.

Each program has a maximum time to completion, and the school tracks graduation rates by program. Graduation rates for the MPH are high, generally exceeding 90% with a maximum time-to-graduation of five years. The median time to completion for the MPH is two years. The DrPH program has a seven-year graduation term. Since the program began in 2009, there are currently no graduates. The graduation rate in MS programs is below the required threshold with rates of 63% and 63% for the two most recent cohorts, though the group prior to those had a 100% graduation rate. The most recent graduation rate for the PhD also fell to 50%, though previous rates were 83.3% and 85.7% respectively for the prior years.

The student numbers are relatively small in the MS and PhD programs, and several students withdrew from the programs, substantially affecting the overall rates. The program directors have explored these in detail and made modifications to minimize this in the future. For example, students withdrew from the DrPH who were trying to complete the program while working full-time, a practice that is now discouraged. Withdrawals in the MS and PhD programs were also investigated and led to modifications in the admissions criteria for the future.

Employment rates for MPH graduates have increased in the past three years (77%, 88% and 84%). Employment rates for MS and PhD students have remained high and relatively stable over the same period (83%, 88% and 90% for MS, 100%, 80% and 100% for PhD). Data on placement rates are collected through exit surveys, alumni surveys, and on-going personal communications between graduates and faculty, staff and the manager of career and employer relations.

Three MPH graduates have taken the Certified in Public Health (CPH) exam in the past three years and passed. There is a plan to better inform students about the exam, since the school feels that pass rates on the exam will inform their assessment of student competencies.

The commentary relates to opportunities for greater clarity in articulating how the school assesses competency attainment. When faculty were asked about competency attainment during the site visit, they said that the number of competencies makes assessment a challenge to measure, and that grades are the most consistent measure, since competencies are mapped to courses. The school does use data from various stakeholders, including students' self-assessments at matriculation and at graduation as well as a preceptor online student competency assessment in the capstone experience, but it was difficult for site visitors to discern a coherent process for using all of the data sources to create an accurate picture of student competency attainment. The capstone pre- and post-competency assessments were also helpful, but faculty were not able to articulate how they put the data together for a complete picture of what the

student was able to do upon graduation. Information provided in the school's response to the site visit team's report clarified the school's compliance with this criterion.

2.8 Other Graduate Professional Degrees.

The school offers curricula for graduate professional degrees other than the MPH or equivalent public health degrees, students pursuing them must be grounded in basic public health knowledge.

This criterion is not applicable.

2.9 Bachelor's Degrees in Public Health.

If the school offers baccalaureate public health degrees, they shall include the following elements:

Required Coursework in Public Health Core Knowledge: students must complete courses that provide a basic understanding of the five core public health knowledge areas defined in Criterion 2.1, including one course that focuses on epidemiology. Collectively, this coursework should be at least the equivalent of 12 semester-credit hours.

Elective Public Health Coursework: in addition to the required public health core knowledge courses, students must complete additional public health-related courses. Public health-related courses may include those addressing social, economic, quantitative, geographic, educational and other issues that impact the health of populations and health disparities within and across populations.

Capstone Experience: students must complete an experience that provides opportunities to apply public health principles outside of a typical classroom setting and builds on public health coursework. This experience should be at least equivalent to three semester-credit hours or sufficient to satisfy the typical capstone requirement for a bachelor's degree at the parent university. The experience may be tailored to students' expected post-baccalaureate goals (eg, graduate and/or professional school, entry-level employment), and a variety of experiences that meet university requirements may be appropriate. Acceptable capstone experiences might include one or more of the following: internship, service-learning project, senior seminar, portfolio project, research paper or honors thesis.

The required public health core coursework and capstone experience must be taught (in the case of coursework) and supervised (in the case of capstone experiences) by faculty documented in Criteria 4.1.a and 4.1.b.

This criterion is not applicable.

2.10 Other Bachelor's Degrees.

If the school offers baccalaureate degrees in fields other than public health, students pursuing them must be grounded in basic public health knowledge.

This criterion is not applicable.

2.11 Academic Degrees.

If the school also offers curricula for graduate academic degrees, students pursuing them shall obtain a broad introduction to public health, as well as an understanding about how their discipline-based specialization contributes to achieving the goals of public health.

This criterion is met. The school offers MS and PhD degrees. Both degree programs offer concentrations in biostatistics, epidemiology, and health services research. The MS and PhD degree programs reside at CU Anschutz campus and are governed by the CU Anschutz Graduate School.

Students in the MS and PhD programs take the three-credit core epidemiology course (EPID 6630) and the three-credit broad introduction to public health. The introduction to public health requirement can be met with either Foundations of Public Health (PUBH 6600) plus the History of Public Health (EPID 6601) for a total of three-credits, or the three-credit Health in the Global Community (CBHS 6619). The school does allow students with an MPH degree or equivalent graduate-level coursework to waive the courses with appropriate prior coursework documentation. There is an exception for the MS students in the Health Services Research, Policy and Administration concentration who take EPID 6630 and PUBH 6600, but not the History of Public Health (EPID 6601). All students receive a broad exposure to the principles of public health.

MS students also have exposure to public health in specific courses, as the school's curriculum is oriented toward the understanding of the relationship of each specialty to public health problems. MS students in Health Services Research, Policy and Administration take courses related to health systems and social and behavioral factors in health. MS Epidemiology students take courses that cover a variety of public health problems such as chronic or communicable diseases, and MS Biostatistics students use statistics to understand various public health problems. MS students must take a minimum of 36 credit hours of graduate level course work.

All academic degree students are required to do a culminating experience. MS students do either a thesis or research paper. The thesis or research paper must be a minimum of four credits up to a maximum of six credits and must include original research in the student's field. Students write, submit and orally present their work in a public seminar. PhD students complete either a dissertation of original research or a dissertation of three publishable units. PhD students are also required to take examinations and pass a public dissertation defense. The CU Anschutz Graduate School provides guidelines for the thesis or research papers for all MS and PhD candidates.

2.12 Doctoral Degrees.

The school shall offer at least three doctoral degree programs that are relevant to three of the five areas of basic public health knowledge.

This criterion is met with commentary. The school offers the doctoral degree in all of the core public health areas. The PhD is offered in biostatistics, epidemiology and health services research. The DrPH is offered in epidemiology, community and behavioral health, and environmental and occupational health. The

school's faculty expertise, research programs and infrastructure are supportive of quality doctoral education.

In 2014-15 there were 49 PhD and 25 DrPH students. Students confirmed that the faculty complement (72) is sufficient for research mentoring for doctoral students. The school is aware of, and concerned about, the level of financial support for the doctorate students. They provided over \$1.9 million in overall support for doctoral students in 2014-15 from scholarship support, tuition waiver support and earnings through university employment. They plan to apply for more training grants in the future, as the school moves into big data science, cancer prevention and control, and maternal and child health.

Students noted that they had difficulty finding financial aid information for applying for scholarships and financial aid outside the school and university resources. Also, peer support in very small programs is limited, and some students said they did not have much access to their cohort once courses were completed. A notable exception was the PhD Epidemiology program that planned seminars, learning activities and social activities for students to connect and network with each other. The epidemiology students were enthusiastic about this benefit. Other students knew there were activities available but did not feel encouraged to get engaged.

The commentary relates to the challenge of providing high-level PhD and DrPH courses other than master's level courses in their own or other departments. In particular, the PhD in Health Services Research needs learning opportunities that are distinct from master's students in the same concentration. The program director noted this program of study has 13 credits of required doctoral-level courses, which is minimal. In response to the site visitors' questions regarding the level of courses offered, faculty affiliated with the doctoral programs felt that students taking master's courses in different programs would be sufficient and did not identify a specific need or plan to address the limited number of advanced courses.

2.13 Joint Degrees.

If the school offers joint degree programs, the required curriculum for the professional public health degree shall be equivalent to that required for a separate public health degree.

This criterion is met. ColoradoSPH currently offers five dual degree programs that involve the MPH: DVM/MPH, MD/MPH, DNP/MPH, MPA/MPH and MURP/MPH. All dual degree students complete 42 credits for the MPH degree. For all dual degree programs, students complete all core MPH courses in the same manner as non-dual degree students, thereby assuring that core MPH competencies are met.

All dual degree students complete an MPH concentration, selecting from the concentrations available to all other MPH students. However, due to the complexity of the tri-campus enterprise and subsequent challenges in scheduling, dual degree students are also allowed to create a custom concentration. In order to be approved for a custom concentration, the student must create a concentration plan that identifies

specific competencies (usually selected from existing concentration competencies) that they will address and that are mapped to the courses they intend to take to address those competencies. The associate dean for academic affairs must approve every custom concentration.

All dual degree students complete a practicum experience to meet the competencies expected for the MPH. All dual degree students must complete a project that fulfills the objectives of the MPH capstone.

The school provides a list of acceptable courses that relate to public health and can be applied to the MPH for each dual degree. The list is developed by the associate dean for academic affairs (who oversees and advises all students in the dual degree programs) and approved by the Education and Curriculum Committee.

The MD/MPH degree operates in cooperation with the CU Anschutz School of Medicine. For the MD/MPH dual degree, medical students take a leave of absence for one year between their third and fourth years of medical school to complete the MPH in three semesters (summer, fall and spring). Medical school credits may be used to replace up to nine MPH credits based on the approved course list. The medical school credits count toward electives. Medical school credits are calculated differently than MPH credits, since each medical school credit is equivalent to 0.54 MPH credits, and an MD/MPH student would need 17 eligible medical school credits in order to fulfill 9 MPH credits.

The DVM/MPH program operates in conjunction with the College of Veterinary Medicine and Biomedical Sciences at CSU. DVM/MPH students spend their first 12 months in the MPH program, and then begin the first year of the DVM program. Students are allowed to apply up to 12 credits of approved DVM coursework towards the MPH degree based on the approved course list for this dual degree.

The MURP/MPH program is offered in conjunction with the College of Architecture and Planning at the CU Denver campus. Students in the MURP/MPH dual degree program take courses concurrently in the two programs. As stand-alone programs, the MPH is 42 credits and the MURP is 54 credits. Both degrees are awarded for a total of 69 credits between the two programs. The MPH program accepts up to nine credits from MURP course work to count towards elective MPH credits as per the approved course list for this dual degree, and the MURP degree accepts 18 credits from the MPH towards elective credits.

The MPA/MPH program is offered in collaboration with the CU Denver School of Public Affairs. Students in the MPA/MPH dual degree program take courses concurrently in the two programs. As stand-alone programs, the MPH is 42 credits and the MPA is 39 credits. Both degrees are awarded for a total of 60 credits between the two programs. The MPH program accepts up to nine credits from MPA coursework to count towards elective credits, and the MPA accepts up to 12 MPH credits as electives.

The DNP/MPH operates in collaboration with the CU Anschutz College of Nursing. Students in the DNP/MPH dual degree program take courses concurrently in the two programs. As stand-alone programs, the MPH is 42 credits and the DNP is 43 credits. Both degrees are awarded for a total of 61 credits between the two programs. The MPH program accepts up to 10 credits from DNP coursework to count towards elective credits, as well as the two-credit Clinical Evaluation Proposal (NUDO 7018) to fulfill the practicum and the four-credit DNP Capstone project (NUDO 8018) to replace the two-credit MPH capstone course as long as MPH competencies and DNP competencies must be incorporated in the practicum activities. Additionally, students are required to complete the online components of the MPH practicum course to assure the documentation of completion of competencies. To date no DNP students have completed the practicum and further requirements may be forthcoming. The DNP accepts up to 14 MPH credits towards electives from the approved course list.

2.14 Distance Education or Executive Degree Programs.

If the school offers degree programs using formats or methods other than students attending regular on-site course sessions spread over a standard term, these programs must a) be consistent with the mission of the school and within the school's established areas of expertise; b) be guided by clearly articulated student learning outcomes that are rigorously evaluated; c) be subject to the same quality control processes that other degree programs in the school and university are; and d) provide planned and evaluated learning experiences that take into consideration and are responsive to the characteristics and needs of adult learners. If the school offers distance education or executive degree programs, it must provide needed support for these programs, including administrative, travel, communication and student services. The school must have an ongoing program to evaluate the academic effectiveness of the format, to assess learning methods and to systematically use this information to stimulate program improvements. The school must have processes in place through which it establishes that the student who registers in a distance education or correspondence education course or degree is the same student who participates in and completes the course and degree and receives academic credit.

This criterion is met. The school offers the MPH in Leadership and Public Health Practice (LPH), which was designed to maximize education for working public health professionals. The majority of public health workers in the state of Colorado are located in small, local health departments and perform a number of functions that would benefit from training in public health through an online format. This concept was reinforced by the community partners, who felt they have benefited greatly from hiring graduates of the school. The LPH program's emphasis is on leadership, management and programmatic components. Students take 38 of their 42 credits online and participate in a limited in-person component for the additional required four credits, which are taught in a hybrid format. The in-person components are taught over a two to three day period, in a concentrated experience, with the additional objective of developing a cohort experience.

LPH students take online MPH core courses that were not designed specifically for the program and are available to all MPH students at least one time per year. The LPH concentration courses were largely

developed specifically for LPH students. Students in other MPH programs felt that the availability of online courses was an additional benefit that also provided opportunity for online students to connect with other ColoradoSPH students. The courses are designed to be the equivalent of the courses taught on campus with the same learning objectives, lectures, assignments, group activities and exams.

The LPH practice experience is designed for completion while participating in course activities. An online section has been integrated into the capstone course for other MPH degree students unable to attend the on-campus course (using CANVAS and ZOOM). The school provided good rationale for offering the program.

LPH applications and admissions structures and procedures are the same as other MPH concentrations. The students have access to student services by telephone or email, and career services are available through video conferencing with the manager of career and employment relations in the Office of Student Affairs. Students in all programs represented at the site visit felt they had easy virtual access to these services. LPH students attend an in-person orientation at their first on-campus session. Students have equal opportunity to do course evaluations, competency assessments and student surveys. The school plans to do a comparison of student evaluations between online and in-person core courses to ensure the equivalent quality. At the time of the site visit the school had not discovered significant differences.

Each new student receives a unique login and password to access the online educational system as well as an email. Academic honesty is stressed in every course, and students complete and pass an online course on this and plagiarism. Students confirm the work is their own, and this is within CU online best practices.

When reviewers questioned the ability to verify student identity, the faculty felt the current login and password plus signing the integrity agreement would be sufficient. There are only four students enrolled in the program at this time, and they have been easy to track because they also live locally. However, continued vigilance in verifying student identity will be important to assuring each student has met the competencies required of the degree program before entering the workforce.

3.0 CREATION, APPLICATION AND ADVANCEMENT OF KNOWLEDGE.

3.1 Research.

The school shall pursue an active research program, consistent with its mission, through which its faculty and students contribute to the knowledge base of the public health disciplines, including research directed at improving the practice of public health.

This criterion is met. The school's research enterprise has breadth, depth, engagement of the community and students, and contributes to public health practice. Research constitutes the school's second strategic

priority with several goals and action steps emerging from the five-year strategic planning process undertaken during 2013. Between 2012-2015, the faculty at CU Anschutz generated approximately \$110 million (total costs) in federal and non-federal grants and contracts and had approximately 140 active, funded research projects at any one time over the past three years. During the same time period, ColoradoSPH faculty members were involved directly as co-principal investigators or co-investigators in \$111 million additional sponsored research projects across other schools on the CU Anschutz campus. Over the same three-year period public health CSU faculty were awarded approximately \$15 million in research funding. UNC has historically not focused or required extramurally funded research projects. Funding levels are adequate for a school of this size.

The majority of the school's research is initiated through the 12 programs and centers. These are collaborative by nature and cut across several campuses and schools. The school's Research Committee was launched in June 2014 and is advisory to the associate dean for research with oversight, review and recommendations for the development, progress and priorities for research conducted by faculty and students of the school.

The school's research agenda has capitalized on areas of collective expertise including the following: American Indian and Alaska Native health, cancer prevention and control, diabetes and obesity prevention, global health, maternal and child health, and worker health and wellness. The school's research is funded by a range of private, non-profit, state and federal sources. New lines of inquiry are driven by the needs of the community partners, such as research into Colorado's high rate of deaths by suicide, where partnering with local advocates and coalitions for mental illness prevention and education initiatives has resulted in greater potential for research. Another example is the longstanding participation in the oil, gas and agricultural industries in the contribution of noise, chemical and particulate exposure to the incident of cancer and cardiovascular, respiratory, infectious and musculoskeletal disease. As a result, the school's participation in environmental health research has expanded substantially.

The university began the construction of the new Anschutz Medical Campus in Aurora, Colorado in 1999 and administratively consolidated the downtown and health sciences campuses in 2004. This brought together the university's five health professions schools, three major hospitals and a number of bioscience companies. The proximity created an environment that is conducive to interactions leading to collaborations including CU Denver and the CU Anschutz Medical School 2008 award of a NIH funded Clinical Translational Sciences Award (CTSA) that resulted in the formation of the Colorado Clinical Translational Science Institute (CCTSI). Two ColoradoSPH faculty are on the CCTSI Executive Council and direct two of the designated cores. The award was renewed in 2015 for five years and will expand formal collaborations to include CSU. Pilot research funding is also available through several of the ColoradoSPH centers, and the school has taken advantage of those grants.

The school follows the CU university policies and procedures related to the responsible conduct of research and does not have additional school specific policies. These govern human subjects review, HIPAA compliance, environmental and occupational safety, animal welfare and research misconduct. The ColoradoSPH associate dean for research manages these policies and procedures for the school. The institutional grants and contracts offices function under federal and state guidelines. CSU and UNC faculty must also comply with their own institutional research policies and procedures, and maintain communication with the CU Anschutz Office of Grants and Contracts, which is maintained through monthly meetings of the research committee. However, indirect cost sharing (ICR) is institution specific and described in the MOA between the three universities.

The faculty, speaking on needs and priorities regarding grants and contracts, knowledge, skills and resources, said a tremendous number of changes have taken place in the school's research environment in the last 10 years with many opportunities for faculty to do collaborative work and to provide research opportunities for students. They said that despite the difficult funding environment, they have continued to find research support.

Many faculty work directly or indirectly with communities and public health practitioners in the development and implementation of research and in teaching and learning to improve public health practice. Community partners were enthusiastic about student practice with their organizations that had resulted in community-based research.

Of the measurable outcomes related to research, there were no school wide research targets related to the number of publications, but the per capita target for faculty was met. However, the targets for the percentage of publications that are collaborative with other ColoradoSPH departments did not meet the target (target of 30% with measures of 11%, 15%, and 15% over the three years reported), nor did the school meet the targets for the increased research efficiency and productivity (target of 90% of ICR returned to the departments, with outcome measures of 0% all three years reported), and the number of faculty development programs to enhance research success (target of 3, with outcome measures of 0, 1, and 2 over the three consecutive years reported).

Students from all degree programs were actively engaged in research, often through the school's centers. This is evaluated each year by reviewing the percentage of students participating in funded projects and 45%, 52%, and 58%, respectively by year, had student involvement. In the student exit survey, they are asked about participation in extramurally funded research while a student, and approximately half of the MPH students, and 80-100% of MS and PhD students, reported participation. Additionally, all academic

degree students conduct research for their thesis or dissertation projects, and DrPH students complete a practice-oriented research dissertation. The school's targets for these are met.

School leaders noted that they feel the need to increase their research training grants and long-term institutional and short-term intensive grants, but they need to secure appropriate levels of support for faculty and not increase uncompensated expectations with already substantial research and instructional loads. One goal of the strategic plan is to implement a cross-campus collaborative pilot program to encourage new research collaborations in 2017-18. Community-based participatory research carries both costs and benefits to the faculty, school, university and communities, and the school will continue to work on long-term relationships to nurture the research enterprise. The tri-campus leadership noted that the school had exceeded their expectations in research.

3.2 Service.

The school shall pursue active service activities, consistent with its mission, through which faculty and students contribute to the advancement of public health practice.

This criterion is met. ColoradoSPH has integrated service into its strategic plan and has a culture supportive of participation by students, staff and faculty. Tenure-track faculty are provided 9% salary coverage for service to the school, their profession and to the community, but service in the community may also be part of the workload allocated to the research, teaching, or public health practice portion of the faculty portfolio. Service activities by faculty include an extensive list of service in editorial capacities, on community advisory boards, with national organizations and as grant reviewers. Support for public health practice and service are two criteria used for faculty promotion and tenure decisions. In accordance with the statewide regent's laws, the school's bylaws define meritorious or excellent service as a requirement for promotion and tenure. The school's faculty handbook provides examples of the types of service that constitute meritorious and excellent service by faculty. The school met and exceeded the targets for faculty involvement in service activities.

A number of service activities have been organized for students by the Office of Student Affairs, and many students choose to perform additional community service outside of the structured school environment. While students are encouraged to participate in service activities, goals for student participation set by the school have not been met. However, it is noted in the self-study that there is not a strong system in place to capture information about student service activities. Staff service activities were not included in the self-study document, but on-site it was noted that staff members do participate in service activities.

More work is underway by the school to increase the service opportunities available within the school, especially for students, and to better capture information on activities once completed. Some specific plans are to add questions regarding service to the exit survey and to better connect students to activities through the Office of Student Affairs. The site visit team learned on-site about service opportunities through a variety

of centers at the school, such as the Center for Public Health Practice and the Center for American Indian and Alaskan Native Health. The team also learned about efforts from the school to promote employment of surrounding community members and a free clinic for community members that is located off-campus and operated by students and faculty.

It is recognized at ColoradoSPH that service is critical to public health and essential to providing opportunities and connections to the local community. The school also recognizes that an important strategy for engaging in relevant service is to increase the visibility of the school in communities and among community organizations.

3.3 Workforce Development.

The school shall engage in activities other than its offering of degree programs that support the professional development of the public health workforce.

This criterion is met. The development of the public health workforce is clearly stated in the school's strategic plan. Objective 5.2 in the plan is to "Increase the reach and effectiveness of training and technical assistance offered by the ColoradoSPH to the public health workforce in Colorado." As reflected in Table 4, there are targets addressing the number of public health practice trainings to be offered each year as well as objectives for the number of participants in those trainings.

The school offers two graduate certificate programs, the Certificate in Public Health Sciences and the Certificate in Global Public Health and is developing a third addressing maternal and child health. However, information provided to the site visit team on-site indicates that many of the enrollees in these programs represent students investigating public health topics rather than professionals. The school also offers a Professional Certificate of Achievement in Health Industry Analytics focused on health professionals adjusting to the demands of health reform.

The school's primary organizational unit for workforce development activity is coordinated by the Center for Public Health Practice (CPHP) with the charge to provide consultation and service to individuals and organizations across Colorado and the Rocky Mountain West. Funding for much of the workforce training activity has been supported by a HRSA grant to the Colorado Public Health Training Center (2010-2014). However, in late 2014, HRSA reorganized this program and established a six state regional program serving DHHS Region VIII (CO, UT, WY, MT, ND, SD). The newly established Rocky Mountain Public Health Training Center (PHTC) is based at the ColoradoSPH.

Table 4. Measurable Objectives Related to Continuing Education Programs

Objective	Measure	Target	2012	2013	2014 ¹
5.2 Increase the reach and effectiveness of training and technical assistance offered by the ColoradoSPH to the public health workforce in Colorado	Number of public health practice trainings per year	50 total	64	56	25
		25 in applied research methods	48	42	19
		15 in health equity, health disparities	23	20	9
	Number of trainees per year	2000 total	2560	2552	1177
		1000 in applied research methods	1920	1914	882
		600 in health equity, health disparities	896	893	411

Note: data are for calendar years shown

¹ Efforts in 2014 were reduced due to a substantial reduction in HRSA funding that year

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Through the new HRSA training center, stipends are available for MPH and DrPH students to participate in practicum opportunities that address the needs of underserved populations (defined as "rural or frontier areas, underserved populations, and/or to support tribal health on a reservation or in an urban Indian population").

ColoradoSPH programs and centers also conduct educational events open to students and the public. The CPHP convenes public symposia in partnership with other agencies, such as the Colorado Department of Public Health and Environment. Site visit discussions with representatives of public health agencies confirm the appreciation these practitioners have for the programs of the school. Topics have included Amendment

35 funding (tobacco tax revenues for public health), linking health care and public health in the Affordable Care Act, marijuana and public health, oil and gas development and public health, obesity and public health, and integration of behavioral health and public health. The school is also a sponsor of the Colorado Public Health Association Annual meeting, which involves over 600 Colorado public health professionals.

The CPHP collaborates in workforce development with the state Department of Public Health and Environment and the state Public Health Alliance, a consortium of 10 public health professional associations. Through this collaboration, in 2009 a workforce assessment and training plan was produced as part of the state's public health improvement plan. Recently, the University of Utah-based public health training center took the lead in updating the workforce assessment survey in May – August 2015.

4.0 FACULTY, STAFF AND STUDENTS.

4.1 Faculty Qualifications.

The school shall have a clearly defined faculty which, by virtue of its distribution, multidisciplinary nature, educational preparation, practice experience and research and instructional competence, is able to fully support the school's mission, goals and objectives.

This criterion is met. The primary faculty, together with those employed less than full-time, holding clinical, secondary, adjunct and affiliate titles, have training and expertise in multiple disciplines and are qualified to support the school's academic and professional programs, and its research and service activities.

There are 134 primary faculty (defined as those involved in teaching, employed full-time and holding primary appointments in tenure, research or clinical teaching tracks) from across the three institutions and organized into five departments. All faculty are trained and experienced in disciplines appropriate to their areas of instruction, research and service activities. Most (84%) of the faculty are in the tenure track.

The school integrates faculty with adjunct and clinical appointments from the public health practice community who complement the primary faculty and integrate perspectives from the field of practice. These adjunct and clinical faculty hold leadership positions in diverse sectors and bring their wealth of experiences into the teaching core and concentration courses alike. They also participate in school administration, for example serving on the Education and Curriculum Committee.

The school identifies several measures by which it evaluates its faculty. These include measures of recruitment and retention, promotion, engagement in faculty development activities and participation in practice activities. The school has been successful in recruiting faculty, with 75%, 75% and 100% of offers accepted in the past three years. The median salaries for associate professors and professors are below the ASPPH targets but may be affected by time in rank. The school is also aiming to ensure that 100% and 70% of tenure track professors and associate professors, respectively, are tenured. They are moving

toward that target for professors but are short of the goal for associate professors. Faculty retention is excellent. The school is exceeding its target in terms of clinical, adjunct, affiliate and secondary faculty working in public health practice and also in terms of school committees with community and workforce membership.

4.2 Faculty Policies and Procedures.

The school shall have well-defined policies and procedures to recruit, appoint and promote qualified faculty, to evaluate competence and performance of faculty, and to support the professional development and advancement of faculty.

This criterion is met. The three collaborating universities each have a faculty handbook detailing policies and procedures including, but not limited to, appointment, promotion, expectations, evaluation, compensation and governance.

Faculty are appointed at each university on different tracks as defined by their mix of activities in teaching and research. There are also different, but clearly specified, criteria for appointment and promotion at each university and options to change tracks as appropriate. The different universities also have different workload models (eg, CU expects that faculty are 70-80% covered on research as compared to UNC and CSU that have higher expectations in teaching). Faculty members who are promoted to a senior rank at either UNC or CSU will be promoted at ColoradoSPH accordingly. The faculty member is not required to submit promotion materials but the following documentation is needed: partner university promotion/tenure approval letter, updated CV, and concurrence from ColoradoSPH Department Chair.

Faculty development activities are based within departments of the home institution. Departments are active in mentoring programs, which include assigning a senior faculty mentor to new faculty hires. The mentors meet with faculty regularly to advise and guide new faculty in all aspects of their work. Faculty are encouraged to identify additional mentors, and senior faculty are often engaged in mentoring faculty from other departments. Some of the larger departments also do group mentoring, meeting approximately every six months to review progress. There are a number of faculty development activities open to faculty to support them in grant writing, effective teaching and skills for effective leadership.

The self-study document indicates that the cornerstone for faculty evaluation is the annual review by the department chair. The annual review process varies somewhat across institutions (eg, using different forms and formats), but all offer the opportunity to set goals and evaluate progress for faculty. CU has a formal mid-course review for assistant professors, which is conducted after approximately three to four years in rank and is reviewed by each faculty member's Department Appointments, Promotions and Tenure Committee.

All courses are evaluated by students using an online evaluation form administered through CU Denver Educational Support Services. Results are available to the course instructor, department chair, the associate dean for academic affairs and the dean. If there are concerns, the associate dean for academic affairs meets with the relevant department chair to develop a plan for improvement. The school is currently developing a peer teaching evaluation system, as currently, the student evaluations are the only formal component of the promotion dossier related to teaching. The peer evaluation system is to be used both for development and evaluation.

4.3 Student Recruitment and Admissions.

The school shall have student recruitment and admissions policies and procedures designed to locate and select qualified individuals capable of taking advantage of the school's various learning activities, which will enable each of them to develop competence for a career in public health.

This criterion is met. ColoradoSPH is committed to recruiting academically prepared and diverse students with a recruitment plan that was implemented in 2015. The recruitment plan details objectives and strategies to meet four recruitment goals:

1. Promote diversity within the student body,
2. Meet program and school enrollment targets,
3. Develop and sustain lasting recruitment streams, and
4. Develop and coordinate systems across programs and campuses.

The plan uses a multifaceted approach to recruitment and marketing based on the following: (1) partnerships and communications, (2) knowledge and accessibility, (3) dissemination and tracking and (4) coordinated systems and structures. There are a number of partnerships with universities, health agencies, and public health and educational organizations that the school has fostered in order to support recruitment of a diverse student body. Additionally, the school is committed to increasing accessibility of their graduate programs through scholarships, fellowships and tuition support.

The Office of Student Affairs oversees recruitment through a wide range of strategies including print and web media, email and social media marketing, and web-based advertising. Communications flow systems for prospective students are used at different stages of the application process, and the effectiveness of the communications and advertisements is well tracked.

Regarding admissions requirements, a bachelor's degree, GPA, test scores, recommendations, personal statement and knowledge in a field relevant to public health through study, relevant work or volunteer experience are considered in the selection process. If a student does not possess a graduate degree, they must submit GRE scores, although other test scores, like the MCAT, may be substituted in some instances. Evidence of fluency in English is required of international students whose primary language is not English. International students must submit TOEFL scores in addition to GRE scores. The Office of Student Affairs receives applications from the SOPHAS application service, verifies the completeness of the application,

triages MPH applications, and then sends them to the department admissions committees for a score according to the MPH scoring guide for the school. MPH applications at CSU and UNC are not triaged, nor are DrPH applications. These are reviewed in full by admissions committees.

On-site, the site visit team learned that admissions for academic programs are undergoing a change to improve efficiency for students, since students had to apply through both SOPHAS and the Graduate School in the past.

Department admissions committees for the academic degrees review all PhD applications, and chosen PhD applicants are invited for an interview.

During the site visit, reviewers learned that the Office of Student Affairs works in close collaboration with the Office of Diversity to recruit students from underrepresented populations by hosting information sessions on public health and targeting recruitment efforts to schools with high minority populations. Site visitors also learned that CSU has money set aside for students to assist in student recruiting that will contribute to the diversity of the public health workforce.

4.4 Advising and Career Counseling.

There shall be available a clearly explained and accessible academic advising system for students, as well as readily available career and placement advice.

This criterion is met with commentary. All incoming ColoradoSPH students are invited to attend a one-day new student orientation at the start of their first academic year. In this setting, students receive general information about the program and attend department specific and career advising information sessions. Academic handbooks are available online with detailed information about academic advising and mentoring; credit requirements; research, practice and examination requirements; and policies. When arriving, each student is assigned a department faculty advisor. The program director or co-director and sometimes program staff are also included in a student's advising network. The advising network is a resource for course advising, registration and mentoring. As students progress through their programs of study, different advisors may be used for research needs and academic interests.

At the site visit, some students felt that they could use additional career services while other students thought that services were adequate. In the fall 2012, the school created and filled a new full-time staff position, the manager of career and employer relations. Students voted to support the position and the operations of the Office of Career Services and agreed to pay an additional fee for those services. According to the self-study materials, approximately 50% of students across all three campuses access the career services office, and the number of students using the office is expected to grow. Of those students who have utilized career services, a large majority have reported a high level of satisfaction with the services

received. During the site visit, students provided many positive comments about the usefulness of the new manager and career services. Students were impressed with the individual coaching, career advising, resume and cover letter review, personal branding advice, interview preparation and salary negotiation assistance. The site visit team also learned that the services were available online and via virtual meetings with remote access for distance education students. In November 2014, the school launched ColoradoSPH Connect, which includes the ability to track students' career services contacts as well as providing centralized online portal access for practice, career and volunteer opportunities; a resource library with tips, informational links, videos and other materials; information on events, speakers and networking; and access to the school's employer contact database.

Students can communicate concerns to the school by discussing them informally with their academic advisor, course instructor, concentration director/program director, department chair, the associate dean for academic affairs, the associate dean for student affairs or the dean. The school continuously monitors student feedback and responds to issues and requests as appropriate and feasible.

The commentary relates to the quality and consistency of advising. While the school met its targets for student satisfaction with advising, there is much room for improvement. At the site visit, current and former students reported that advising varied, depending on the campus, and access to particular faculty and staff varied. Some students were satisfied with advising while others expressed frustration. On-site the team discovered that the CSU students had concerns regarding the availability of classes, quality of some core courses and the lack of public health knowledge of all faculty involved in student advising at the ColoradoSPH. During the site visit, the team learned from administrators that there is not a public health faculty line and the tuition share goes to the departments rather than the specific faculty teaching the course (presumably the tuition share is to help pay them). CSU has 11 different departments involved in the courses and student advising. The large number of potential advisors leads to a great deal of inconsistent information. At CU, 5%-9% of faculty workload (depending on the faculty track) is devoted to advising and internal service to the school, and at the site visit, faculty noted that there was a need for more time to devote to advising. Students did comment that faculty and staff are approachable and responsive and that was reiterated in meetings with faculty and administrators.

Future plans at the school to improve advising include gathering information from students, faculty and staff on how best to make improvements; offering faculty training; and restoring funding to support more advising time. With a large array of programs and increased numbers of course options, more advice on degree requirements will be needed and is currently underway in some programs.

Agenda

COUNCIL ON EDUCATION FOR PUBLIC HEALTH ACCREDITATION SITE VISIT

Colorado School of Public Health September 28-30, 2015

Monday, September 28, 2015

- 8:30 am Site Visit Team Request for Additional Documents
Lori Crane
David Goff, Jr.
- 8:45 am Site Visit Team Resource File Review
- 9:30 am Meeting with Core Leadership Team
John Adgate
Anthony Airhart
Adam Atherly
Sheana Bull
Lori Crane
Dawn Comstock
Dana Dabelea
Carolyn DiGuseppi
Mary Dinger
Jan Gascoigne
Debashis Ghosh
David Goff, Jr.
Spero Manson
Elaine Morrato
Jill Norris
Lorann Stallones
- 10:45 am Break
- 11:00 am Meeting with Self-Study Committee
Judith Albino
Chloe Bennion
Tim Byers
Lori Crane
Dana Dabelea
Mary Dinger
Jan Gascoigne
David Goff, Jr.
Spero Manson
Lorann Stallones
- 11:45 am Break
- 12:00 pm Lunch with Students
Meagan Cain
Christine (Chrissy) Esposito
Kelly (KC) Hall
Nicole Harty
Naveed Heydari
June Homadayjanakul
Katie Lohmiller
Yingbo (Bob) Lou
Tavia Mirassou Wolf
Natalie Murphy

Sophia Newcomer
Allison (Alli) Shapiro
Natalie Thomas
Nicole Tuitt
Brandi Vollmer
G. Lee Wright

1:30 pm Break

1:45 pm Meeting with Instructional Programs Group 1: DrPH and MPH Programs

Madiha Abdel-Maksoud
Adam Atherly
Alison Bauer
Elizabeth Brooks
Lori Crane
Mary Dinger
Elizabeth Greenwell
Olivia Jolly
Yvonne Kellar-Guenther
Kathy Kennedy
Jenn Leiferman
Sharon Lutz
Tracy Nelson
Jennifer Peel
Elaine Scallan
Marci Sontag
Lorann Stallones

3:00 pm Break

3:15 pm Meeting with Leadership of the Universities

Linda Black
Donald M. Elliman, Jr.
Ellen Gregg
Jodie Hanzlik
Rick Miranda
Roderick Nairn
John Reilly, Jr.
Robbyn Wacker

3:45 pm Site Visit Team Executive Session and Resource File Review

5:00 pm Adjourn

Tuesday, September 29, 2015

8:30 am Meeting with Faculty Related to Research, Service, Workforce Development

Danielle Brittain
Ashley Brooks-Russell
Sheana Bull
Dana Dabelea
Cerise Hunt
Elizabeth Juarez-Colunga
Spero Manson
Lisa McKenzie
Elaine Morrato
Jennifer Peel
Jini Puma
Carol Runyan
Gregory Tung

9:45 am Break

10:00 am Meeting with Instructional Programs Group 2: PhD and MS Programs

Adam Atherly
Cathy Battaglia
Lori Crane

Tessa Crume
Gary Grunwald
John Hokanson
Katerina Kechris
Rich Lindrooth
Shawna McMahon

11:15 am Break and Resource File Review

12:00 pm Lunch with Alumni and Community Stakeholders

Vincent Atchity
Donna Boucher
Ned Calonge
Alexa Cares
Mark Johnson
William (Bill) Marine
Lisa Miller
Sara Miller
Tristan Sanders
Lainey Trahan
Jane Viste

1:30 pm Break

1:45 pm Resource File Review

3:00 pm Meeting with Faculty and Key Staff Related to Faculty Issues, Student Recruitment, Advising

Marnie Andrews
Kendra Bigsby
Dawn Comstock
Lori Crane
Dana Dabelea
Mary Dinger
Jan Gascoigne
Dan Hussey
Arnold Levinson
Rich Lindrooth
Lorann Stallones
Ben Weihrauch
Roxana Witter
Holly Wolf

3:45 pm Break

4:00 pm Site Visit Team Executive Session and Resource File Review

5:30 pm Adjourn

Wednesday, September 30, 2015

9:00 am Site Visit Team Executive Session and Report Preparation

12:30 pm Exit Interview