National Health Care Skill Standards Become a Reality
The National Health Care Skill Standards (NHCSS) were officially introduced at a Washington, D.C. reception on September 14, 1995. Fueled by the realization that America’s students were not performing equally on international assessments with other developing countries, it was realized that standards must be set that give students a bar against which to measure their preparation for entry into the workforce.

A unique partnership between the U.S. Department of Education, the U.S. Department of Labor and the National Skills Standards Board funded 22 pilot projects representing different industry sectors. Health Care was one of the sectors to receive funding. The award was given to 1WestEd in partnership with the 2National Consortium on Health Science and Technology Education (NCHSTE).

Led by a Policy Advisory Committee, more than 1,000 individuals representing a combined 100 health care organizations and education institutions participated in the development, review and pilot testing of the standards. Standards have been developed and validated for foundation skills that span the health science career cluster. The Health Care Skill Standards offer an answer to the question “What does a healthcare employee need to know and be able to do to contribute to the delivery of safe and effective health care?” Health Care Skill Standards represent common expectations most workers need in order to succeed in a job and a career.

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<tr>
<th>Foundation Standards by title:</th>
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<td>• Academic Foundation</td>
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<td>• Communications</td>
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<td>• Systems</td>
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<td>• Employability Skills</td>
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<td>• Legal Responsibilities</td>
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<td>• Ethics</td>
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<td>• Safety Practices</td>
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<td>• Teamwork</td>
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<td>• Health Maintenance Practices</td>
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<tr>
<td>• *Technical Skills</td>
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<td>• *Information Technology Applications</td>
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<td>*These standards were later added by the USDE</td>
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The standards, by title, seem common across all industry sectors. However, further investigation reveals uniqueness to the standards within the various industries. The sample shows the unique communication features for those seeking a career in health care.

Sample Standard: Communications
Health Care workers will know the various methods of giving and obtaining information. They will communicate effectively, both orally and in writing.

1 WestEd is one of 10 regional laboratories funded by the U.S. Department of Education. Each has an area of specialization. WestEd has been charged with providing research for assessment and evaluation.
2 NCHSTE is a consortium of health care industry, professional and state level secondary and postsecondary education representatives whose mission is “…to shape and influence the preparation and employment of the health care workforce”.
Benefits of having nationally validated Health Care Skill Standards include a potential for forging strong links among the various stakeholders within this career cluster. National standards provide a common language, common goals and a common reference point for employers, workers, students, labor, educators and consumers.

In addition, career pathway standards have been developed. Grouped by health care functions; diagnostic services, therapeutic services, support services, health informatics and biotechnology research and development; these standards provide the next step in the career preparation learning continuum that leads to specialization and career entry.

Careers that are high employing or have high employment potential have been identified and are displayed on a career specific chart for those wishing more information on the groupings. In addition a matrix showing academic and certification/licensure requirements for each of the careers listed on the chart is available to assist students with career selection and program planning.

**Setting the Bar Summit Defines Accountability Criteria**

Once all of the standards were in place and validated by field test it became evident that further delineation was needed. NCHSTE in partnership with the Utah State Office of Education was the recipient of one of the National Building Linkages grants. These projects collaboratively sponsored by the U.S. Department of Education, the National Skills Standards Board and the National School-to-Work Office were designed to build learning continuums that span the grade levels beginning in elementary school and culminating with professional preparation at a college or university. This project provided resources for developing the accountability criteria for each of the standards.

A “Setting the Bar” Summit was held with individuals across the country from colleges, universities, secondary schools, professional and employer groups. These experts were asked to determine the criteria for measuring each foundation standard. Too often students are expected to demonstrate skills and knowledge within the skill standards areas, but little detail is offered on the level. Educators wanted to know “how good is good enough” to meet those expectations?”

The accountability criteria that resulted from the Summit “set the bar”, providing the answer to the question asked and at the same time created guidelines for curriculum design and student assessment. The accountability criteria also informs postsecondary faculty and health care employers as to what can be expected of students completing foundation standards preparation. The accountability criteria were validated by school-based teams from the 17 states that were members of NCHSTE at the time of standards development.

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Sample Standard: **Communications Accountability Criteria**

**Oral Communication Skills**
- Adjust communication to other’s ability to understand
- Apply the elements of communication using the sender-receiver model
- Apply active listening skills using reflection, restatement and clarification techniques
- Demonstrate courtesy to others including self introduction
- Interpret verbal and non-verbal behaviors to augment communication and within scope of practice
- Demonstrate interviewing skills

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3 The determination of the method for organizing the career pathways was the result of a lengthy and contentious debate. Many supported the idea of occupationally specific career paths, such as, nursing or pharmacy, while others saw no need for this interim set of standards. After much discussion it was agreed that the skills and knowledge needed for careers within this broad and diverse industry would be grouped by functions.
A second “Setting the Bar” Summit was held that included representatives from a number of health care professional organizations and postsecondary faculty. The attendees at this summit were responsible for developing accountability criteria for the career pathway standards. 10 school-based teams from five NCHSTE member states volunteering to participate in the process validated these accountability criteria.

Assessment and Certification
With the validated Health Care Foundation Skill Standards in place and the accountability criteria identified, the assessment process was ready to begin. Test item developers from five of the NCHSTE member states were invited to submit test items for each of the accountability criteria. The items were reviewed for bias and authenticity and organized into three tests of 100 questions each for pilot testing at the 2001 National Health Occupations Students of America (HOSA) Leadership Conference. A total of 518 students representing 24 states participated in the pilot test.

The pilot test results will help the test developers make revisions as indicated by the responses. The survey revealed that 44% of the students were familiar with the National Health Care Skill Standards, 77% thought their curriculum was aligned with the standards and 49% felt the test should be added as a HOSA skill event. Test takers were also asked if they thought a Certificate of Achievement would add value to the test. Responses indicated that 52% believed it would, 22% believed it would not and 26% were unsure. Fifty percent of the students agreed they would be willing to pay a $20 fee to take the test.

A second field test was completed during the spring of 2002, with 2,736 volunteers participating through an Internet accessible version of the exam. Results are being tabulated for further item refinement. Conversations with several testing companies are ongoing. Selection of a vendor should be completed by early fall 2002. Criteria for selection will include: Internet access, immediate results for the test taker, item analysis available for the instructor and a matrix sampling item selection process.

In addition to scenario based multiple-choice items, a portfolio of student work will be required for certification. The portfolio will include such items as a resume, job application, a writing sample, service learning/community service project description and a work-place learning experience validation. The portfolio will be verified and maintained by the instructor. The testing company and NCHSTE will endorse the certificate.

The pilot tests revealed that of the 11 foundation standards tested the weakest area is the Systems Standard. In order to assist teachers with the content and application, a Systems expert was contracted to develop a self-contained module on the topic. The Systems module is available on CD. Those that have purchased the CD have been extremely pleased with the format and content.
Standards-based Instruction
As part of the Health Science Building Linkages project, NCHSTE also developed more than 175 activities spanning grades K-12. These activities integrate the health science foundation skill standards into academic and career technical education coursework. The activities help students gain the skills and knowledge needed to successfully complete the certification as well as skills needed for making wise career choices.

Each activity is organized by grade span:
- K-3
- 4-6
- 7-8
- 9-12

They are also organized by academic subject:
- English-Language Arts
- Mathematics
- Science
- History-Social Science
- Health Education
- Physical Education
- Health Science

Each activity includes identification of the primary and secondary academic connection and identification of the specific academic and health care foundation standard(s) that are addressed. For ease of use, notes on the role of the teacher, education partner(s), industry partner(s) as well as assessment strategies and recommended resources are included. For more information and resources on the topics links to web sites are highlighted.

The development process was extensive with teams from 17 states participating in the development and pilot testing of the activities. Once the first draft was completed a team of two from each of the 17 states was trained to be coaches at a three-day interactive case-study event. Each coach was then assigned to guide the pilot test of two learning partnerships that included elementary, middle and high schools, a community college and/or university and appropriate industry partners. Following the field test, a de-briefing session was held for the coaches where results were reviewed and activities revised as recommended by the pilot teams.

One recommendation was to strengthen the rigor and complexity of activities supporting math and science standards at the high school level. To accomplish this task high school science (chemistry, physics, biology) and math (geometry, algebra, calculus) faculty were teamed with University of California and California State University faculty from the schools of nursing, pharmacy, medicine, radiology and physical therapy. Several health care professionals joined the educators and 15 additional highly rigorous activities were completed and added to the model.

The Health Science Building Linkages Model activities have been distributed through professional development to more than 30 states including Alaska and Hawaii. The distribution has included both inservice sessions for health science and health careers faculty and industry representatives as well as train the trainer sessions for those that wish to take on this responsibility. Teachers have been very enthusiastic about the ease of implementation and student response. New activities will be added as available.

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