Healthcare Employers

Beth Israel Deaconess Medical Center
Boston Medical Center
Brigham and Women's Hospital
Cambridge Health Alliance
Children's Hospital Boston
Codman Square Health Center
Dana Farber Cancer Institute
Deutsches Altenheim German Centre for Extended Care
Dorchester House Multi Service Center
East Boston Neighborhood Community Health Center
Harbor Health Services Inc.
Hebrew Rehabilitation Center
Lahey Clinic
Massachusetts League of Community Health Centers
Massachusetts Senior Care Foundation
Partners HealthCare
Steward Health Care System
Tufts Medical Center
VinFen Corporation

Higher Education

Benjamin Franklin Institute of Technology
Bunker Hill Community College
MassBay Community College
Mass Department of Higher Education
Middlesex Community College
Quincy College
Roxbury Community College
University of Massachusetts, Boston

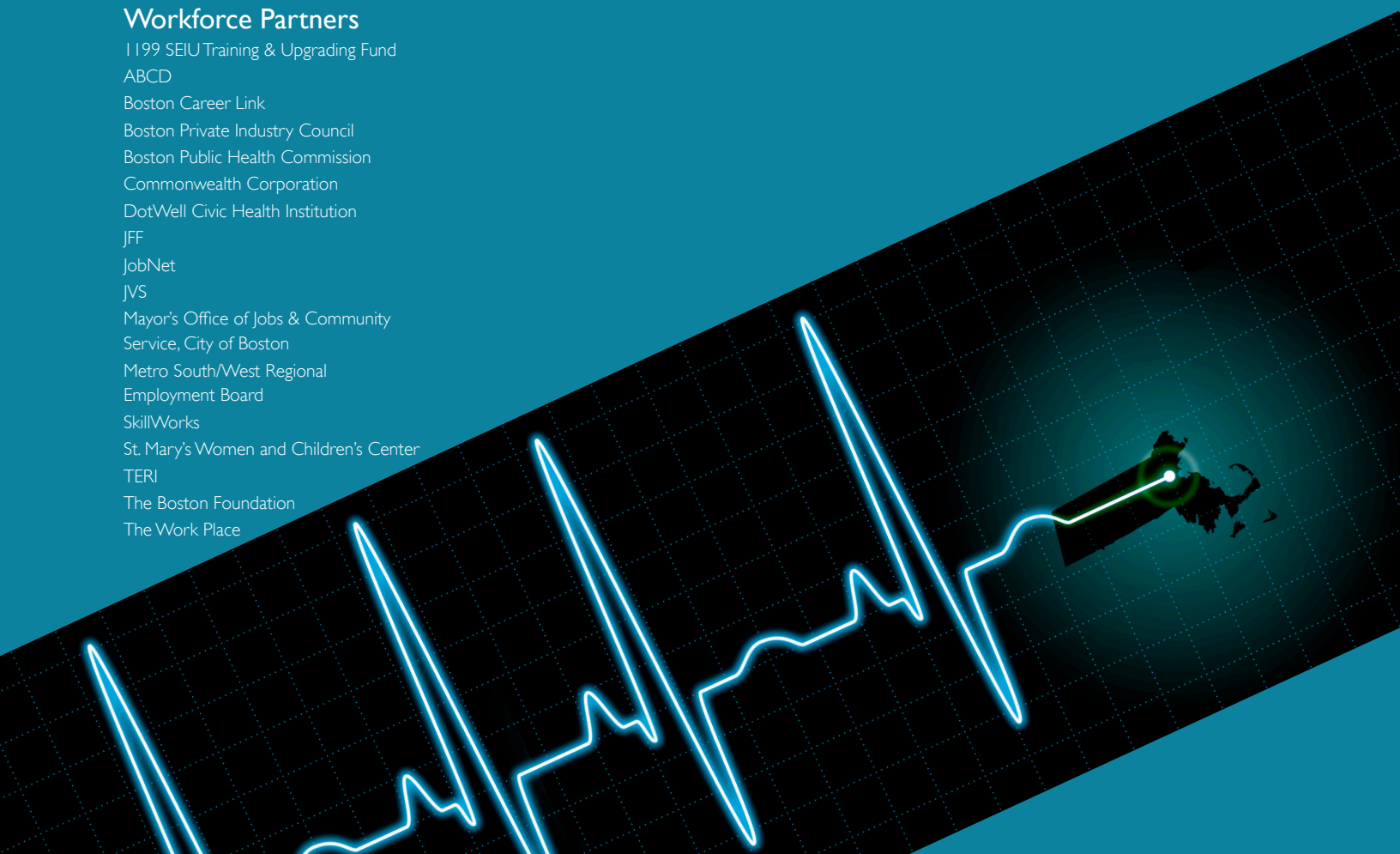
Workforce Partners

1199 SEIU Training & Upgrading Fund
ABCD
Boston Career Link
Boston Private Industry Council
Boston Public Health Commission
Commonwealth Corporation
DotWell Civic Health Institution
JFF
JobNet
JVS
Mayor's Office of Jobs & Community Service, City of Boston
Metro South/West Regional Employment Board
SkillWorks
St. Mary's Women and Children's Center
TERI
The Boston Foundation
The Work Place

Critical Collaboration:

Improving Education & Training Pathways to Careers in Health Care

Boston Healthcare Careers Consortium
November 2011



This report represents one year of collaborative effort to identify the places where education and training, public workforce, and healthcare industry systems are not optimally aligned. The descriptions and analysis are that of a multi-stakeholder group, the Boston Healthcare Careers Consortium.

This project was funded by a Healthcare Skills Gap Partnership grant through the Executive Office of Labor and Workforce Development. The grant program was funded by the American Recovery and Reinvestment Act and was administered by Commonwealth Corporation.

Joanne Pokaski, Director of Workforce Development at Beth Israel Deaconess Medical Center and chair of the Consortium and Alysia Ordway, Director of Workforce Initiatives at the Boston Private Industry Council took the lead on engaging partners and organizing ideas generated by the group. Early drafts of the text were written by Liz O'Connor of Strategy Matters, an independent consulting firm, based on an outline and recommendations generated by the Consortium over a ten month period. The document was reviewed and revised several times by Consortium members and PIC staff between June and November 2011. The graphic design was provided by Erich Doubek, an independent design consultant.

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Introduction

The healthcare sector is the largest employment sector in Boston. According to the Commonwealth Corporation 19% of all jobs in Boston are in health care.

While job opportunities in the healthcare industry are numerous, the pathways to those jobs can be unclear. As a result, Boston has healthcare employers who have jobs they want to fill but are having trouble filling. In addition, people who are interested in careers in heath care struggle to identify opportunities for which they are qualified. This gap between the available workforce and jobs is likely to worsen as the economy improves and as current skilled workers retire.

Many of these "middle skill" jobs require very specific academic credentials and certifications. Aligning education and training pathways with job opportunities in health care will help more people connect to in-demand jobs. This would also help employers to hire the diverse, high quality workforce they need to deliver excellent patient care.

A large number of programs exist to better connect people with careers in health care. Employers have invested in over 60 programs to help their incumbent workers build skills and advance into new jobs. Some of these are offered in collaboration with local community colleges. In addition, local colleges offer over 60 certificate and Associate degree programs in healthcare professions. Also, more than 60 programs run by community based organizations and for-profit training organizations offer individuals the opportunity to train for a job in the healthcare field. All of these programs are documented in the report, *Profile of the Current Educational and Training Opportunities for Boston's Healthcare Workforce*, released earlier this year by the Boston Healthcare Careers Consortium.

[www.bostonpic.org - See links to other reports and related documents in Appendices].

The Boston Healthcare Careers Consortium is a committee convened by the Boston Private Industry Council to bring together healthcare, workforce and education stakeholders. The group has grown to include representation from nineteen employers or employer associations, eight higher education institutions including the state department of higher education, twelve workforce development partners, as well as representation from public health, college access organizations, and foundations. All are united by a vision to work together to effectively build the skilled, diverse healthcare workforce that Boston's healthcare sector needs to thrive. The Consortium seeks to build upon what already works, while creating new opportunities to support both workers and employers more broadly.

The Consortium was initially funded and supported by the Commonwealth Corporation. In part, its founding mandate was to develop recommendations to improve alignment and acceleration of healthcare education and training pathways that lead to certificate and Associate degrees for students in Boston. Beginning in March 2010, the Consortium met monthly to share labor market information, collaborate, and to identify best practices. Through this method, members learned more about existing system resources and discussed in detail workforce trends to inform their own planning and program implementation.

The Consortium's goals include:

- Connecting Boston healthcare employers, educational institutions, the workforce system, and others;
- Identifying gaps and better aligning current programming to ensure a prepared workforce for Boston's healthcare sector;
- Identifying and leveraging resources to support workforce development in health care.

In this report, the Boston Healthcare Careers Consortium recommends changes which will strengthen the collaboration between employers, workforce development, and education systems. The objectives of the Consortium are designed to enhance the alignment between job opportunities and educational pathways, helping to ensure that people will be well prepared for workforce demands.

The Challenge
Ensuring Optimal Alignment of Education and Training with Employer Needs

There are 4.4 unemployed workers for every vacant job

According to a 2010 report issued by the Massachusetts Department of Workforce Development, there are 4.4 unemployed workers for every vacant job. Across the state, health care posted more job vacancies than any other major industry during the second quarter of 2010. When looking at the healthcare sector from an occupation perspective, more than two-thirds of the vacancies are skilled positions that fall into the managerial, professional, and technical category.

Although there are many factors contributing to Boston's overall 2.6 percent job vacancy rate (*Massachusetts Job Vacancy Survey: Hiring Trends by Industry & Occupation. Massachusetts Department of Workforce Development.* 2nd Quarter 2010), the Consortium recognizes that better alignment between existing educational and training programs and employer needs offers an opportunity to narrow that gap.

The Consortium has met regularly to identify potential areas for improvement and to propose solutions. This process has encouraged major stakeholders— including healthcare employers and higher education institutions—to collectively acknowledge areas of misalignment that impede the ability of potential and existing employees to connect to jobs.

There is general agreement among Consortium members that the community colleges should move toward more consistent course titles and academic standards, particularly in developmental courses, healthcare prerequisites and occupational pathways. However there is not agreement on the path to get there. Community colleges feel that faculty committees should retain control of course design and prefer to move toward consistency through a collaborative process among community colleges and their faculty. Employers and workforce system representatives feel strongly that healthcare pre-requisite courses such as Biology, and health care programs should be standardized throughout the state.

The following is a summary of the Consortium's work to identify challenges and objectives, as well as recommendations and next steps. The recommendations focus on strategies to better align education and training resources with job opportunities. It is presented in a format that replicates the job seeker's experience – from choosing an occupational program and a college to securing a job placement that rewards a specific degree or certification. Its recommendations focus on how to build optimal alignment across education and training resources, thereby creating true pathways.

Why Focus on Community Colleges?

Although healthcare institutions draw upon individuals trained by a range of academic and vocational providers, including non-profit organizations, four-year colleges, and beyond, this report is focused primarily on community colleges, for the following reasons:

- The Consortium's initial charge from the Commonwealth Corporation was to improve educational and training pathways into health care that lead to Associate degrees. Community colleges are the primary entity offering this credential.
- Many "middle skill" jobs in health care require a certificate, and community colleges are the primary providers of these credentials.
- Public community colleges offer a less expensive higher education alternative to take courses and attain educational credentials.
- Many employers in the consortium have piloted projects with public community colleges and have experience working with them.

Step One
Choosing a Program and a College:
Ensuring Alignment Between What Employers Need and Education Programs

Students invest precious time and scarce financial resources into earning a credential that will make them competitive in the workforce. As they seek information to make decisions about their career pathway, students may have difficulty finding necessary information, such as employer hiring preferences and data on graduate outcomes and placement rates for academic programs. Without this information, students could make ill-informed decisions about academic programs and career pathways.

Consortium Objectives:
The Consortium strives to ensure that graduates of academic programs have the appropriate skills and credentials necessary to meet healthcare workforce needs. Enhanced availability of information on employer hiring preferences and graduation and employment outcomes of academic programs will enable students to make informed decisions in pursuit of their goals.

- Publish consumer information about job specifications and employer hiring preferences.
- Publish program outcomes for employees and students to access prior to their enrollment in college.

Challenges:

Employers do not broadly distribute information about their hiring preferences. While employers may indicate on a job description that a degree or certificate is required, the characteristics of a program that they prefer are not. As a result, students often pursue courses of study at a college that are not totally aligned with an employer's needs. This can lead to a student spending time and resources to complete a certificate or degree only to learn that they are not eligible for hire with an employer.

For employees who want to remain with their current employer, but are looking to upgrade their skills to obtain a better position, appropriate program selection is crucial. Selecting the wrong program can result in an individual not being eligible for advancement with their current employer. This means that the employee will either need to switch institutions (a losing proposition for the healthcare institution) or remain in his/her current position and lose the personal and financial resources he/she invested in a certificate/program (a losing proposition for the employee).

Education programs vary for the same occupational categories. After students identify a career that they would like to pursue, it can be difficult to choose which school's program offers the best "fit". Because programs vary across colleges, students pursuing the same occupation may end up taking very different roads to arrive at the same destination. For example, some colleges may incorporate more introductory credits in their program design to accommodate students who are less experienced. Without clear information about why certain campuses offer a more comprehensive approach, students may be confused by the difference in programming across the campuses.

Currently, critical consumer information on student outcomes is not always comprehensive or widely available to the public. Students are consumers. More information will help a student understand how well a specific program meets their needs and prepares them for work, and which employers are hiring in a given field, and from which certificate and degree programs. While some colleges offer information on enrollment and graduation rates for academic programs, employment outcomes are not broadly publicized.

What It Looks Like:

While healthcare employers make job descriptions publicly available, nuances of hiring may not be clear. For example, one employer requires phlebotomists to have "good phlebotomy skills" but does not indicate whether the employer favors experience or certification in demonstrating those skills.

At one college to earn a Phlebotomy Technician Certificate, a student must complete two courses (totaling seven credits). At another college a Phlebotomy Technician Certificate consists of six courses (totaling 16 credits). While the program prerequisites and requirements are available on both program's websites, information on the percentage of students who graduated from the program in the last year and where they are employed is not. In an ideal world, when students are reviewing program descriptions and pre-requisites, they should also be able to review enrollment, graduation, and employment outcomes. With more published data, students will be better able to determine which program is right for them.

What Can Be Done?

Improve transparency by encouraging employers to publish their hiring preferences for specific occupations. Employers should publish information which will help job seekers to select an appropriate training program. For positions requiring certifications and degrees, what required number of clinical rotation hours is assumed by the employer to show that the degree is a quality indicator of preparedness? Employers should be required to publish aggregate data on new hires, by field, by occupation and by preparatory school/training.

Require community colleges to publish consumer information for students to see, pre-enrollment. Students and job-seekers need to know what their pathway to employment looks like before embarking on a time-consuming and expensive course of study. Colleges and employers share a responsibility for publishing their requirements for entry (to work or to training) as well as the results that a student can reasonably expect to achieve by entering the education or training program. In addition to course requirements, colleges should be required to publish graduation rates, pass rates by certification exam, and job placement statistics including employer, job title, and wage data.

Step Two
Transitioning to College:
Making Placement Practices and Developmental Education Consistent, Clear and Efficient

Before students enroll in college, they must take the Accuplacer placement test. Community colleges use different test components and cut scores to determine placement into developmental coursework. Results from these tests are not easily transferred from one college to the next.

Research shows that once students enter college in a developmental education program, their time-to-graduation is much delayed, and further, many get discouraged or run out of financial resources before completing their education/training goals. Additionally, since developmental education varies across the college system, students may experience some overlap or gap in material if they take courses at more than one school.

When potential healthcare workers initially seek education and/or training to enter the healthcare field, a common first step is to enroll in a community college to gain a certificate or an Associate degree. As open admission institutions, community colleges serve as an accessible resource to a wide range of students, from first-time college students to individuals seeking second careers.

At entry, these students will take the Accuplacer, a placement test developed by the College Board and used by Massachusetts community colleges to determine if students are ready to take credit bearing, college level courses, or if they need remedial (developmental education [1]) courses in math, reading, and writing. The Massachusetts Board of Higher Education Common Assessment Policy, adopted in 1998, requires all public colleges to utilize the Accuplacer to test basic skills in reading and mathematics and to apply standard cut-off scores for placement into college-level work. Given the role that the Accuplacer retains as the "gatekeeper" into most community colleges credit-bearing courses, understanding a college's testing policy and entrance requirements are essential for any entering student.

[1] "Developmental education" refers to remedial education which is required of students seeking to enter college courses but lacking sufficient academic skills, as determined by a placement test. Developmental education courses are offered on campus and by the college but do not offer the student credits toward his/her certificate or degree completion.

Consortium Objectives:
The Consortium strives to identify ways for students to efficiently attain the necessary preparation to be successful in healthcare programs and advance toward career goals.

- Better communicate standards for college-readiness across the K-12, ABE, and community college systems.
- Accelerate efforts to introduce students to the Accuplacer and the state college application process in high schools and other secondary education programs such as Adult Basic Education and GED preparation programs.
- Gather student placement data in a central database, accessible across the public college and university system for transferability of scores.
- Move toward consistent and transferable developmental education courses.
- Engage faculty from across campuses to discuss academic standards and instructional objectives for developmental education courses and the use of the Accuplacer for student placement.
- Ramp up efforts to identify, share, and adopt best practices which will help to accelerate student progression from non-credit bearing to credit-bearing courses.

Challenges:

Too many students apply to college unprepared for college-level work, and consequently test into developmental education programs. According to current national research, almost half of all entering students at community colleges are placed into developmental education in at least one subject as a result of being identified as in need of remediation by the Accuplacer.[2] Testing into developmental education is a common experience for many students seeking an education at a community college. According to statistics provided by Bunker Hill Community College, the number of first-time degree seeking students needing developmental education has fluctuated between 72% and 98% annually at BHCC over the last five years. For instance, in fall of 2009, of the 1,896 students who took all three placement tests (English, Reading and Math), 98% tested as needing at least one developmental course. The distribution of their scores follows:

98% of students tested as needing at least one developmental course

Developmental Needs, First Time Degree Seeking Students, Fall 2009[3]

Development Course(s)	% Placed at Developmental Level
Math Only	41%
English & Math	21%
Reading, English & Math	36%

[2] Hughes, Katherine L. and Judith Scott-Clayton. Assessing Developmental Education in Community Colleges. February 2011. Community College Research Center, Teachers College, Columbia University. New York.
[3] 2009-2010 Bunker Hill Community College Fact Book, p. 48.

Colleges administer and implement the Accuplacer test differently. Colleges customize the test to ensure that students are placed in the appropriate level of developmental education according to their institution's curriculum. As a result, one college requires a student to take one component of the Accuplacer, while another college may require multiple components or different sequencing of the tests. This can be confusing for students who transfer between colleges, who are simultaneously enrolled in classes at different colleges, or who stop-out and return to another college at a later date.

Accuplacer scores are not directly transferable between schools. While there is an informal practice of colleges sharing student test scores and honoring the results, there is not a standard policy and practice for cross-campus sharing of scores.

Developmental remediation programs are structured differently from college to college. As a result, students are "locked-into" a remediation sequence since successful course completion at one college is not transferable to another.

Developmental coursework increases the time and cost to complete a degree. While remediating academic skill deficits is essential, the longer students are in school, the less likely they are to complete a program and some students never get beyond developmental education. Massachusetts community college students are not alone in facing barriers to college completion. Nationally, less than one quarter of community college students who enroll in developmental education complete a degree or certificate within eight years of enrollment in college.[4] By comparison, community college students who do not enroll in any developmental education courses complete a degree or certificate in the same time period at a rate of 40%.[5]

What it Looks like:

The chart below shows the complete developmental education sequences at three community colleges serving the Boston area. It is important to note that not all students are required to take all of the placement tests and not all students will need all of the courses. This illustration depicts the range of pathways to credit-bearing coursework for students who score at the lowest levels of preparedness.

Eng = English;
Rdg = Reading
LN = Language
Sci = Science

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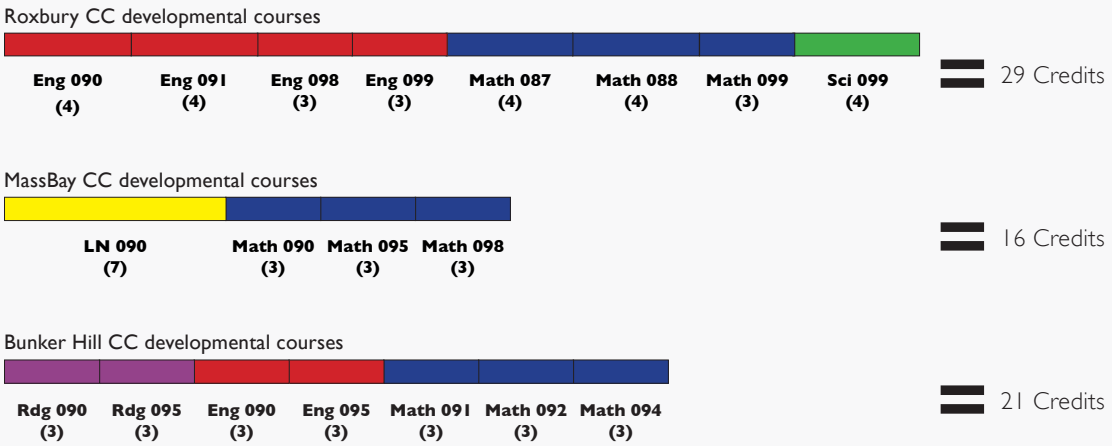
Sequences range from 16 to 27 "credits," and the courses have different names, numbers, content, and qualifying Accuplacer scores.



[4] Bailey, Thomas. Developmental Education in Community Colleges. 2007. US Department of Education.
[5] Bailey, Thomas and Sung-Woo Choo. Developmental Education in Community Colleges. October 2010. Community College Research Center, Teachers College, Columbia University. New York.

Based upon selected major and student test scores, the need to remediate may vary. For example, of the students in Roxbury Community College's Fall 2009 cohort who took developmental math and English courses before they progressed to college-level math and English, 95% needed 1 or 2 developmental math classes and 95% needed only 1 or 2 developmental English classes.

What Does this Mean for Students?

Many high school graduates expect that because they have a high school credential they are "college-ready." However, this may not be the case depending on their individual skills in areas ranging from test-taking to study skills to basic math and language skills.

Students generally do not realize that placement into levels of developmental education may differ from college to college based upon the college's unique curriculum. As a result, students often take the exam at one institution, not realizing that the placement results are applied differently at other colleges. In addition, students are not aware that different colleges administer different Accuplacer tests. As previously mentioned, one college may only require one test, while another may ask a student to take multiple tests.

Students who transfer between colleges sometimes find themselves having to retake the Accuplacer because they either are not aware that it might be possible to have scores transfer or because they have to take tests that were not used at their previous school. Retesting may also occur due to the age of the scores. If the score is too old, the results may not reflect student understanding of the concepts. For students retesting can be a waste of time, but for colleges re-administering tests to obtain data on students that already exists is a drain on resources.

Because developmental courses are considered pre-college and do not count toward a degree, students may get frustrated when they cannot enter directly into credit-bearing courses and begin the pre-requisite courses to advance their career goals. Since developmental courses cost the same as credit-bearing courses, students are spending their limited resources on coursework that does not earn credit toward a degree. Although most students do not need the full sequence of courses, depending upon their needs the cost could range from $433 for one course to $2961 for an entire sequence of remediation. This estimate does not include book costs.

What Can Be Done?

The K-12, the ABE system, and community colleges need to continue to communicate on standards for college-readiness across systems. Students in these different settings are not often prepared for the next step in their education pathways. Identifying the gaps and ways to bridge them needs to be a priority for policy makers.

Move toward consistent and transferable developmental education courses. While there is general agreement that developing a more consistent approach to academic remediation is a priority, there is a lack of agreement on how best to achieve this. Employers and others in the Consortium would like colleges and universities to standardize developmental education course content, sequencing, and course numbers so that coursework is the same and transferable across institutions. Community colleges would like to engage faculty from across campuses to discuss the differences in the use of the Accuplacer as a tool and map course equivalencies.

Accelerate the effort to introduce to students in high schools and GED preparation programs to the Accuplacer. The availability of the Accuplacer to high school students and adult learning programs will enable students to become familiar with the testing format and content assessed in the placement test, so that they may review, learn or practice a subject matter prior to the test. More clarity on the use of the Accuplacer could result in fewer developmental education placements. A student would then better understand the implications of their test scores or whether they are likely to be placed in developmental education. Current initiatives to expose high school students to the Accuplacer test and college expectations through dual-enrollment programs and early test administration are helpful to this effort and should be accelerated and expanded.

Improve the clarity of the placement process to help students understand how their test scores are being applied by each college program. Students need to know, before they apply to college, the kinds of knowledge and skills they should brush up on before taking the Accuplacer and what scoring at different levels would mean for course placement. Colleges should publish cut scores for developmental courses. College admissions officers and placement counselors will be better able to advise students, potentially resulting in higher retention and graduation rates.

The development of a central database for student test scores would make this data accessible across the public college and university system for transferability, while adhering to FERPA regulations. However the development of such a system would require new resources and a system for updating. While colleges have an informal practice of sharing scores, placement test score data is not tracked on a student's transcript. A statewide database would allow data to "follow the student," making it easier for students to access classes across colleges as necessary.

Community colleges should continue to identify best practices which will help to accelerate student progression from non-credit bearing to credit-bearing courses. There are some programs emerging which are helpful in pinpointing the academic deficits that students may bring to the Accuplacer, and which would enable teachers, tutors or students themselves to remediate just those skills that are lacking, rather than re-doing entire courses. Other strategies for supporting student progression should be shared across colleges with a shared goal of helping students to accelerate the process of entering credit-bearing classes.

Two Boston community colleges, Bunker Hill and Roxbury, have been engaged in a nationwide reform effort called Achieving the Dream that looks to improve outcomes for students requiring remediation. Recently, both schools were recognized for progress made on committed leadership, use of evidence to improve programs and services, broad engagement, and systemic institutional improvement.

Additionally, colleges should build upon promising practices such as Bunker Hill's developmental learning communities and utilization of web-based resources such as ALEKS and *MyMathLab*. ALEKS is an educational remediation program used by the University of Massachusetts, Boston and Bunker Hill that pinpoints a student's learning priorities and provides a web-based platform for students to work independently on their specific area of difficulty, rather than take semester-long courses that may be more remediation than they need. Roxbury Community College's *MyMathLab* offers an active online, self-paced course. At RCC this tool has made it possible for students to complete two developmental math courses in one semester.

Step Three
Navigating Within the Community College System:
Ensuring Comparability and Portability for College Credit Courses

More than ever before students are taking classes from more than one college. Because curriculum varies by program and course across community college campuses, it can be very difficult for students to find and take equivalent courses, have those course credited among schools, and efficiently attain a first credential and then a next level credential.

According to the Transfer Advisory Group convened by the Department of Higher Education, more than 25% of students in MA two and four-year public colleges attend more than one college. Healthcare employers believe that this percentage is even larger among their workers. As described earlier in this report, students who also work face challenges finding courses that fit with their work schedules. While ideally students would attach to one campus for all of their learning needs, often external circumstances prevent this from happening. One way that these students meet these challenges is to take an equivalent course at another community college. For other students, they may start at one college taking developmental courses and/or healthcare pre-requisites and then must change schools because the program that they are interested in is only offered at one campus.

More than 25% of students in Massachusetts public colleges attend more than one college

Additionally, many students may move or change jobs while pursuing their certification/degree. Either move may make one college's offerings more appealing than another for geographic or scheduling reasons. Because working adults are often taking one or two courses at a time, their educational journey happens over a longer time period, and a change is residence or job during that long time period is not unlikely.

Consortium Objectives:
The Consortium will work with the Commonwealth to identify opportunities to align curriculum by course and program across college campuses.

- Improve information-sharing by creating one electronic transcript system for the state colleges and universities
- Make healthcare degree required pre-requisite courses such as English, Chemistry, Biology, etc. more transferable across colleges and programs.
- Work toward the standardization of outcomes and possibly curriculum among the state's allied health programs.
- Examine the potential for stackable credentials within health professions to develop career ladders where appropriate, and make recommendations for implementation.

Challenges:

Course content varies from course to course among schools. For students trying to piece together a set of healthcare degree pre-requisite courses to train for a healthcare profession, one challenge they face is that essential courses like Biology and Chemistry have different names and numbers at different community colleges.

Currently each public college chooses the sequence of courses required to attain a credential. The lack of a unified set of courses makes it difficult to advise students along a path and often results in students doing re-work if they move from one school to another.

Information about course equivalencies is not widely available. Some college staff members understand which courses are equivalent among local schools, but otherwise this information is not easily accessed by students.

The transfer of credit from one school to another school is dependent upon the student to initiate what can be a cumbersome process. Currently this transfer requires the student to purchase an original sealed transcript. The registrar or transfer credit office at the receiving college would then review the transcript to determine course equivalency.

Often work done to attain a certificate is not applicable toward a related degree. In our current healthcare education system, people can spend considerable time and money to train for one profession, yet few if any of those courses transfer toward the education requirements of a related healthcare profession. The structure of many certificate and Associate degree programs can be somewhat proscribed, preparing students with very specific knowledge and skill sets, often driven by national accrediting agencies. Certificates in particular are very specific in their curricula and do not allow for the inclusion of additional, general coursework that might also be part of a degree program. For example, at Bunker Hill Community College, of the 25-26 credits of coursework one would need to attain a Medical Assistant or a Patient Care Technician certificate, only 3 to 9 credits count toward an Associate Degree in a Nursing program. For many students, success in certificate programs drives them to want to learn and achieve more professionally. While students are obtaining transferable skills and gaining invaluable exposure to the healthcare industry after completing a certificate program and gaining employment, the reality is that these credentials are not currently designed to be foundations for degrees.

What it Looks Like:

Mary is interested in becoming a surgical technologist and has enrolled in a program which requires Biology 108: Human Biology with lab. Unfortunately, none of the courses offered at her current college accommodate Mary's work and family schedule, so she looks into taking a course at another community college.

At the new college Mary's choices are Bio 101: General Biology with lab or Bio 110: Principles of Biology with lab. However, it is not clear which course is equivalent to Bio 108. She cannot find information on either school's website that helps her understand how these courses relate. A counselor told her which course was equivalent to her original college's Bio 108 requirement. She took this course and got an A. She now wants to transfer her course back to her college since it is a pre-requisite for the next course she needs to take. Mary must request a hard copy of her transcript be sent to her college before she can enroll in the next course in the program sequence. Since it can take up to 6 weeks for her credits to process, Mary worries that she won't be able to get a seat in the class as the Surgical Technology II course begins to fill up.

What Can Be Done?

Improve information-sharing by making transcripts available system-wide. Each student in the state of Massachusetts should have one transcript that captures all courses taken in the public system. That transcript should be accessible electronically at any public institution. The Consortium agrees with the Commonwealth Transfer Advisory Group (CTAG) report that the state should create a comprehensive centralized transfer website targeted for various audiences which includes a statewide electronic transcript delivery system and an online degree audit system.

Make healthcare program pre-requisite courses more transferable across colleges and programs. While these is general agreement that courses need to be more transferable across colleges, there is disagreement about how best to approach making these changes. Employers and other in the Consortium would like to see one standard set of courses and corresponding course numbers across the state college system. The alignment of the curriculum would allow students to take program-specific courses at multiple colleges and obtain the same professional competencies. Community colleges propose that the colleges should comprehensively map course equivalencies in subjects such as math, English, biology and chemistry as they apply to healthcare certificate and degree programs, which would be made widely available. The results of such a process would then populate a resource like the comprehensive centralized transfer website recommended by CTAG.

Work toward the standardization of outcomes and possibly curriculum among the state's allied health programs.

Examine the potential for stackable credentials within health professions to develop career ladders where appropriate, and make recommendations for implementation. As a state, we need to move toward identify clinical skills that could be applied from one profession to another.

Step Four
Learning While Earning:
Creating flexible Pathways for Working Adults

Working adults, while a valued part of the talent pool, face additional challenges in pursuing their academic goals and balancing personal and professional responsibilities. The community college system, initially created for more traditional students, has increasingly tried to accommodate working adults.

People who are already working in health care are one of the most important sources of potential workers for critical vacancies within the healthcare system. Many healthcare providers like to promote from within, as this enables them to advance those employees who have already demonstrated soft skills, knowledge of the workplace culture, specific linguistic skills or other desirable skills, and avoids the costs associated with onboarding new employees.

However, incumbent workers in healthcare jobs who seek to advance their skills in hopes of a promotion face the challenge of working full time, while also taking classes towards a degree/certificate. Many of these non-traditional students are also raising families and may have been away from the classroom for some time. Of the 1,900 students who responded to a fall 2009 survey at Bunker Hill Community College (BHCC), three out of four students expected to work more than ten hours per week over the course of their education.

Three out of four college students expect to work more than ten hours per week over the course of their education

Consortium Objectives:
The Consortium will strive to expand educational pathways and clinical opportunities for all students including working adults.

- Continue to expand innovative delivery systems for courses and programs.
- Work creatively to identify more clinical placement possibilities at healthcare institutions during regular and off-shift times.

Challenges:

For working adults who are balancing multiple responsibilities, navigating work and class scheduling can be particularly difficult. Many certificate and degree programs limit their enrollment due to factors such as labor market demands and campus resources. Colleges are not always able to offer a required course more than one time per week, or outside of the traditional college day. For working adults, this may exclude them from enrolling in certain programs, limiting their opportunities.

In addition to scheduling, the cost for courses at nontraditional times at some colleges can be prohibitive to non-traditional students. Some colleges charge more for evening and weekend classes than they do for weekday options.

What it Looks Like:

For non-traditional students, scheduling conflicts may be a barrier to degree/certificate attainment in selected programs. If a student cannot schedule a required course and if that course is only offered once a semester, progression through a sequence is inhibited and in some cases slowed to the point where it is no longer practical to continue.

Community colleges strive to provide students flexible course scheduling. Certain courses and programs have been added to evening and weekend offerings. However, sometimes flexible options at some colleges come at an increased price to the student. Non-traditional students required to take evening and weekend courses may wind up paying significantly more for their degree/certificate than a student enrolled during the daytime. For example, at MassBay Community College, day and evening courses are priced differently based on program and time of day. Students enrolled in the LPN (Licensed Practical Nurse) program during the day pay $201/ credit, whereas students enrolled in the same program in the evening pay $277/ credit. ADNs (Associate Degree in Nursing) day students pay $211/credit, while ADN evening students pay $315/credit. This issue of funding and how the finance systems at colleges relate to the central state system is far more complicated than can be addressed in this report; however, it is important to note that the current pricing system makes credential attainment more challenging for working adults.

What Does this Mean for Students?

Everyone (employers, students, colleges) wants students to move through a course progression in a timely manner, to earn a degree, and to move successfully into the workforce. Scheduling conflicts can slow down or stop this progression. As a result, students may be unable to move from their current position or face the undesirable situation of having to choose between working and attending school. In this case, working will likely prevail as students will have financial obligations to their families that cannot be met without an income.

For example, Lydia is a medical secretary who wants to become a radiology technologist. She's anxious to get her certification because she's learned that there are many job openings in this field. She can't afford to stop working, so she enrolls in an evening program at community college.

After taking some but not all of her required courses, she runs into a problem: the course she needs for her degree is only offered on weekday mornings. This is the very time that she cannot attend school, as she would lose her job. She is stuck and is forced to wait and lose time.

One hospital noted, "While many of the Rad Tech courses are offered in the late afternoon/ evening, completion of the degree requires a lengthy clinical placement in a radiology department during daytime hours when there are the most patients to observe. Many students at our hospital have had to leave their positions in order to complete this clinical placement only to then face challenges in being hired as a 'new' Rad Tech."

What Can Be Done?

Community colleges work hard to accommodate non-traditional students. Colleges offer day, evening, weekend, and online class options. However, for small certificate programs with limited enrollment, access is still an issue. For career tracks that are considered "high-need" by employers, increasing online offerings to attract non-traditional students is one option. Employers and colleges must continue to work together to identify "high-need" and "high-demand" employment areas and expand course offerings.

Community colleges should continue to expand their efforts to provide more scheduling alternatives to meet student need. This includes expanding existing course offerings at night and on weekends and developing more hybrid models such as online learning, utilization of simulation labs to meet the demand for clinical, hands-on learning with limited time. This includes accelerated programs, which allow some students to move through programs more quickly. To better serve students who are working full time and trying to complete coursework towards a degree or certificate, these multiple delivery options are critical. Online and hybrid courses (a blend of classroom and web-based instruction) are valuable options as are more part time and weekend options. This includes accelerated options.

Employers should continue to assist their workers in their efforts to advance by providing them with more flexible work schedule options when possible to accommodate their academic pursuits. Often employers' workforce development staff or union staff will counsel employees to see if schedule adjustments are possible or even counsel employees to request adjustments to their work schedules, if possible. Employers and colleges should work creatively to find more clinical placement possibilities at healthcare institutions during all working hours.

Employers and colleges should work creatively to find more clinical placement possibilities at healthcare institutions during all working hours.

At All Steps
Enhancing Collaboration Across Systems:
Coming Together

Community colleges, the workforce system, and employers have successfully worked together for years to create effective and mutually beneficial workforce development programs. Yet misalignment may still occur. Employers are not always clear about their exact needs, which may occasionally lead a community college to expend resources to develop a program that does not fully satisfy the employer. In addition, employer needs change and evolve. All entities share a responsibility to come together in order to effectively communicate and coordinate efforts.

For community colleges to effectively train students, employers must be willing to offer internship and clinical opportunities. Community colleges are often forced to restrict the number of students they can admit to a particular program because on-the-job training opportunities are limited.

Consortium Objectives:
Consortium members are committed to continued dialogue about the evolving needs of the healthcare sector. These efforts will help to ensure that Greater Boston has the educated workforce needed to provide world class health care.

- Regularly convene employers, educators and workforce development entities including funders to share information regarding changing industry demands.
- Improve information-sharing on clinical internship availability, employer health screening and orientation requirements, and best practices for preparing students for the internship experience.

Challenges:

Creating cross-system alignment is always a challenging undertaking. Community colleges, employers, and workforce development organizations have unique goals, different stakeholders, and varied organizational requirements. As a result, two major problems may occur.

Employers may communicate mixed messages about their workforce needs and requirements. In addition, external factors such as healthcare reform impact the employment outlook for many occupations. Community colleges are poised to respond to labor market demands as it is part of their mission. When mixed-messages are received or external factors change, the result is the creation or expansion of programs for occupations that have become unexpectedly over-employed. For example, after years of a heralded national nursing shortage, colleges are now graduating more nurses than ever. Yet there is a mismatch between the training and interests of new graduates and the kinds of nursing positions that are available now. In addition, while a student is in a given program, market demands may shift which may impact their ability to obtain the position that they desire.

It is also a challenge for community colleges to prepare students in a way that satisfies all employers. Employers—even within the same healthcare system—have different standards and requirements. In an effort to respond to a variety of employer demands, colleges often find course/program development challenging. Furthermore, these standards and requirements must be effectively communicated to educational and training providers so that they have an up-to-date and clear understanding of employers needs. This is an ongoing and vital concern for the health of the training system.

There are limited internship opportunities for students to gain hands-on learning experiences. Although eager for a skilled workforce, employers are sometimes unable to offer enough on-the-job training opportunities for students. Colleges find themselves with the additional responsibility of having to locate work sites to host internships, shadows, and/or rotations, all of which are critical components of the student training process but also require significant staff time to develop.

This limits the number of students a college can accept into a specific program and forces the college to expend resources on locating clinical sites. Employers, on the other hand, find themselves deluged with requests from colleges to host students. Taking on a student can feel more like a burden than a benefit for under-staffed hospitals and healthcare institutions since the increased responsibility falls to already over-tasked employees.

What Can Be Done?

Employers, educators, and workforce development entities need to convene, share information and work together to create an optimal training system. Employers, educators and workforce development entities will continue the dialogue that has begun over the past 18 months. These discussions have enabled the three sectors to share labor market information, collaborate, and to identify best practices. This work and the collaborative activity need to continue, with staff support as a priority. We know that the healthcare industry will continue to change, particularly as the structure of care delivery evolves over the next 5 to 10 years. It is important that this group continue to work together to most efficiently respond with changes in education and training.

Improve information-sharing on concrete and up to date information related to operating the workforce training programs. The hospitals and healthcare employers currently offering clinical placements should contribute information about all aspects of clinical internships including availability, testing requirements, and pre-internship health clearances to a centralized database which could facilitate making matches between and among students at all schools/training programs. This would greatly streamline the process of matching students to placement opportunities.

Conclusion

The quality of the educational and training system for healthcare careers is essential to Boston's regional economic health and vitality. Today, this system is preparing workers for jobs at some of the world's finest institutions, and will continue to ensure a prepared workforce for years to come.

The need to better align healthcare education and training to employer needs is urgent. An aging population along with healthcare reform, which enables many more people to access healthcare services than ever before, will continue to drive the demand for healthcare services. At the same time, an aging healthcare workforce with many workers expected to retire in the coming 10-15 years will mean the loss of skilled capacity across the sector.

The intent of this report is to set the stage for future collaboration in three areas: increasing clarity and availability of information about job specifications and educational programs, improving information sharing across sectors, and creating aligned education and career pathways – for the benefit of both students and employers.

1) Clarity

At all points on the career pathways, it is critically important to ensure that job-seekers know the impact of their decisions on their career prospects as well as the financial and time implications. Employers and colleges share a responsibility to provide more comprehensive information on the education and training system to students to assist then in making better and wise allocations of their scarce resources -- time, tuition and attention.

2) Information-Sharing

High schools, colleges, training programs and employers need to constantly be in communication to discuss the issues which impede access and advancement for students and job-seekers. Often a change within a single system or a local "fix" will significantly help streamline the pathways for workforce development. For example, sharing access to transcripts across state systems or sharing entrance requirements for jobs with training providers who prepare workers for those jobs.

3) Alignment

Closely linked to both clarity and information sharing is the need to develop and maintain alignment among curriculum offerings. As discussed in detail above, the community colleges in the Consortium should clearly define programs like "phlebotomy certificate" and more broadly share expectations around college readiness. Identifying the skills that students need upon entry to and graduation from education programs will support the preparation of the workforce that employers need now and in the future.

Recommendations

Step One

Choosing a Program & a College: *Ensuring Alignment Between What Employers Need and Education Programs*

1. Publish consumer information about job specifications and employer hiring preferences.
2. Publish program outcomes for employees and students prior to their enrollment in college.

Step Two

Transitioning to College: *Making Placement Practices and Developmental Education Consistent, Clear, and Efficient*

3. Better communicate standards for college-readiness across the K-12, ABE, and community college systems.
4. Accelerate efforts to introduce students to the Accuplacer and the state college application process in high schools and other secondary education programs such as Adult Basic Education and GED preparation programs.
5. Gather student placement data in a central database, accessible across the public college and university system for transferability of scores.
6. Move toward consistent and transferable developmental education courses.
7. Engage faculty from across campuses to discuss academic standards and instructional objectives for developmental education courses and the use of the Accuplacer for student placement.
8. Ramp up efforts to identify, share, and adopt best practices which will help to accelerate student progression from non-credit bearing to credit bearing courses.

Step Three

Navigating Within the Community College System: *Ensuring Comparability & Probability for College Credit Courses*

9. Improve information-sharing by creating one electronic transcript system for the state colleges and universities.
10. Make healthcare program pre-requisite courses such as English, Chemistry, Biology, etc. more transferable across college programs.
11. Work toward the standardization of outcomes and possibly curriculum among the state's allied health programs.
12. Examine the potential for stakable credentials within health professions to develop career ladders where appropriate and make recommendations for implementation.

Step Four:

Learning While Earning: *Creating Flexible Pathways for Working Adults*

13. Continue to expand innovating delivery systems for courses and programs.
14. Work creatively to identify more clinical placement possibilities at healthcare institutions during regular and off-shift times.

At All Steps

Enhancing Collaboration Across Systems: *Coming Together*

15. Regularly convene employers, educators, and workforce development entities including funders to share information regarding changing industry demands.
16. Improve information-sharing on clinical internship availability, employer health screening and orientation requirements, and best practices for preparing students for the internship experience.

Appendix A: Related Efforts, Research and Data

A. Trends in Healthcare & Social Assistance Sector in Massachusetts:

Lashman, Rebekah, Jonathan Latner, and Navjeet Singh. *Trends in Healthcare & Social Assistance Sector in Massachusetts.* Commonwealth Corporation, 2008.

Boston Private Industry Council. *Boston Healthcare Careers Consortium: Profile of the Current Education and Training Opportunities for the Boston Healthcare Workforce.* Boston Private Industry Council, 2011.

Hebert, Scott. *When Untapped Talent Meets Employer Demand.* The Boston Foundation, February 2011.

B. Related work on reforming developmental education and improving pathways

Sperling, Charmian B. Massachusetts *Community College Developmental Education Best Policy and Practice Audit.* Massachusetts Community Colleges Executive Office, June 2009.

Commonwealth of Massachusetts Community College Developmental Education Committee. *Collaboration, Collaboration, Collaboration: Strategies and Principles to Address the Need for Remedial/ Developmental Education and Enhance Its Effectiveness.*

Commonwealth of Massachusetts Transfer Advisory Group. *The Final Report from the Commonwealth Transfer Advisory Group.* Massachusetts Department of Higher Education, 2008.

Achieving the Dream: www.achievingthedream.org

Oregon Community College Career Pathway Initiative: www.worksourceoregon.org

Appendix B: Acknowledgements

Consortium meetings are open to all who are interested. The Boston Healthcare Careers Consortium would like to thank the following people who contributed to our work by participating in one or more of our meetings, and/or offered feedback on this report, and/or provided information utilized in meetings.

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- John Auerbach, *Massachusetts Department of Public Health*
- Carolyn Blanks, *Massachusetts Senior Care Foundation*
- Janice Brathwaite, *Massachusetts League of Community Health Centers*
- Maia BrodyField, *Boston Public Health Commission*
- Candace Burns Johnson, *Dana Farber Cancer Institute*
- Joanna Cataldo, *East Boston Neighborhood Health Center*
- Barbara Chassaigne, *Tufts Medical Center*
- Brad Cohen, *Boston Public Health Commission*
- Julie Dellio, *VinFen Corporation*
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- Pat Noga, *Massachusetts Hospital Association*
- Joanne Pokaski, *Beth Israel Deaconess Medical Center, Consortium Chair*
- MJ Ryan, *Partners HealthCare*
- Karen Schoch, *Children's Hospital Boston*
- Karen Sontag, *Cambridge Health Alliance*
- Joanne Tranford, *Harbor Health Services*
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Education & Training System

- Judy Beckler, *St. Mary's Women & Children Center*
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- Karen Diaz, *Benjamin Franklin Institute of Technology*

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Workforce Development System

- Sylvia Beville, *Metro South/West Regional Employment Board*
- Henry Bryson, *Metro South/West Regional Employment Board*
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- Angela McCabe, *The Work Place*
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- Dan Sherman, *The Boston Foundation*
- Dan Singleton, *City of Boston, Mayor's Office of Jobs & Community Services*
- Nancy Snyder, *Commonwealth Corporation*
- Rebecca Starr, *JFF*
- Neil Sullivan, *Boston Private Industry Council*
- Randall Wilson, *JFF*

Boston Private Industry Council Staff

- Steve Farrell, *Development*
- Sally Heckel, *Post-secondary Transitions*
- Alysia Ordway, *Workforce Initiatives and Boston Healthcare Careers Consortium*
- Dore Penn, *Career Centers*

Appendix C: Report Development

The Consortium began meeting in April 2010 and met thirteen times through June 2011. In initial planning meetings, Consortium members identified a desire to look more closely at the ways healthcare sector, education and workforce systems were not optimally aligned to support efficient and effective pathways for students interested in healthcare careers. Before addressing these misalignments, the group agreed that the first step required identifying the specific problems, articulating the challenges and their impact on all involved parties.

Over the course of the year, the subcommittee revised the document based on feedback from the larger group. In February 2011 the outline was shared with leaders of impacted organizations for feedback. Over the course of the spring a narrative was drafted based on the outline. Consortium members had one last opportunity to comment on the document before it was finalized.

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- Jill Griffin, *The Boston Foundation*
- Steve Farrell, *Boston Private Industry Council*
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- Diane Loud, *Boston Medical Center*
- Brenda Mercomes, *Roxbury Community College*
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- Karen Sontag, *Cambridge Health Alliance*
- Neil Sullivan, *Boston Private Industry Council*
- Kathleen Sweeney, *Middlesex Community College*
- MJ Ryan, *Partners HealthCare*
- Karen Schoch, *Children's Hospital Boston*
- Karen Shack, *Commonwealth Corporation*
- Dan Sherman, *The Boston Foundation*
- Geoff Vercauteren, *Brigham & Women's Hospital*