The Health Science Learning Exchange (HSLE) will prepare students for the many opportunities awaiting them in college and careers in health care, mental health, biomedical research, informatics/human information technologies, and elder care. The HSLE, part of the Illinois Pathways Initiative, supports school districts, community colleges and universities, and employers to build local career pathways that help learners explore their academic and career interests in the health sciences.

**For Employers**

How do you find the qualified graduates ready to fill critical positions in your field? Do you want to have a say in the need for changes in curricula and standards and directly connect with students eager to learn and explore health sciences careers?

Partnering with the HSLE gives you a voice. As a partner, you connect with schools and colleges that can provide you with interns as well as qualified employees. In the highly competitive health sciences field, partnering with the HSLE positions you to help determine the direction of health science curriculum and to connect with schools and colleges in a more meaningful way.

Participation in the Health Science Learning Exchange creates better opportunities for your organization to find qualified employees. Your participation plays a part in ensuring that Illinois prepares and keeps its own future scientists. You raise the level of science literacy at a time when it’s more important than ever for everyone to be better educated about critical environmental and health-related issues. Participation in the HSLE also helps to raise your organization’s public profile, as you join a network of forward-looking institutions which seek to revitalize the economic and scientific future of the State of Illinois.

Student success depends on partnering with education and the private sector, and the HSLE is committed to improving how public and private investment is coordinated across the health science sector in Illinois. As a partner of the HSLE, your organization has the opportunity to:

- Join a speakers’ bureau of professionals who are able to connect with students directly through site visits or video conferences, which enables students and professionals to make real connections;
- Work with local schools and districts to ensure that students have access to the resources they need to succeed;
- Participate in regional and statewide student science competitions;
- Provide internships and job mentoring which paves the way for better staffing for your organization in the future;
- Connect with other institutions who are also supporting this statewide effort through direct contributions of resources or joint grant opportunities.

“The health care sector continues to expand and there has been increased emphasis on everything from insurance to nutrition, the aging population, and research. As a nation, we need to ensure that there are qualified candidates able to manage all facets of health care including computing professionals, technicians, doctors, nurses, and researchers.”

—Heather Tarczan, UIC Medical District Commission

Under the direction of Chancellor Paula Allen-Meares, UIC assumed the lead role in developing health science STEM learning exchanges in Illinois. STEM learning exchanges bring together networks of educators, businesses and industry associations to create programs of study, internships, and speakers’ bureaus to educate highly qualified health science professionals.

“UIC is one of the top 200 research universities in the world and home to the largest college of medicine in the U.S. Many startups have sprung from our research. With our broad reach and deep understanding of the health sciences and the marketplace, UIC is well-suited, and proud, to lead the planning and implementation of the Health Science Learning Exchange for the future of Illinois and its citizens.”

—Paula Allen-Meares, Chancellor University of Illinois at Chicago

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**Health Science STEM Learning Exchange Implementation Lead Organization:**

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A crisis is looming in the health sciences. By 2020, the number of available health care-related jobs will grow dramatically. As shown in the accompanying chart, the top 10 careers with the highest expected growth fall within the health sciences. But employers ask: Will there be enough qualified workers to fill those jobs? Educators ask: Are students learning what they need to know to fill those positions? Dramatic changes in healthcare reform reveal three major trends which will impact students, education professionals, and health care providers alike:

- Patients are becoming more culturally and ethnically diverse;
- An aging population presents the health care system with more complex and chronic health needs;
- Communities and regions with the highest need face severe shortages of primary care physicians, specialists, nurses and acute and emergency care services.

The Health Services Learning Exchange connects three groups with the resources they need:

- Students considering health care or research careers;
- School districts and colleges needing to prepare future providers;
- Businesses in need of qualified professionals.

The HSLE gives each constituency a role in preparing a better future for health care in Illinois.

### Employment in health-care related fields is expected to grow much faster than average through 2020. Some of the fastest-growing employment areas are shown below.

#### Employment (in thousands)

<table>
<thead>
<tr>
<th>Profession</th>
<th>2010</th>
<th>2020</th>
<th>Percent change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational Therapy Assistants</td>
<td>28.5</td>
<td>40.8</td>
<td>43.3</td>
</tr>
<tr>
<td>Medical Scientists Except Epidemiologists</td>
<td>100.0</td>
<td>138.5</td>
<td>36.4</td>
</tr>
<tr>
<td>Physical Therapists</td>
<td>198.6</td>
<td>279.0</td>
<td>39.0</td>
</tr>
<tr>
<td>Medical &amp; Health Service Managers</td>
<td>303.0</td>
<td>371.0</td>
<td>22.4</td>
</tr>
<tr>
<td>Medical Secretaries</td>
<td>371.0</td>
<td>508.7</td>
<td>41.3</td>
</tr>
</tbody>
</table>

**For Students**

Where will the good jobs be when you graduate? How do you prepare yourself for admission to the best research universities and for a rewarding career?

The Health Sciences Learning Exchange is here to help you make your choices in the wealth of opportunities available to you in medicine, research, home health care, data collection and analysis, and many other fields that are projected to have a shortage of qualified candidates in coming years.

You want to make sure you get the experience you need to gain admission to the college of your choice—whether it’s in the classroom, through internships and assistantships in the laboratory and in the workplace. Once in college, you want to take the courses and extracurricular activities that employers need.

Whether you expect to be a health care professional, researcher, mental health specialist, technician, or home care helper, the HSLE is your starting point. HSLE links your class-time and after-school activities toward exploring careers and college programs in the health sciences. Turn to the HSLE to learn about:

- Research opportunities. The most selective institutions require lab and research experience as well as good grades. The HSLE can point you toward chances for faculty mentorships, work-based learning opportunities, and to gain experience pursuing cutting-edge research.
- Education standards. Make sure the courses you are taking now meet the standards that employers are looking for.
- Careers. It’s not just about medical school. Discover the wide range of careers open to you in health-related fields that are clamoring for well-qualified employees.

*Students don’t always know about the full menu of careers available to them. Highly selective colleges are looking for students who have research experience. The 21st-century research skills they need to learn—working with teams and collaborative groups, working on problem solving and interdisciplinary problems—are essential. Most research programs encourage students to choose a project, and when it is complete, they inevitably say, ‘That was fun.’*

—Judith Scheppler, Illinois Math and Science Academy

**For Education Professionals**

Are you offering the courses your students need for the many positions available to them in the health sciences? Are you providing them with the equipment they need for lab work and research as well as internships and other learning opportunities?

Colleges and professional schools need to educate and train more health science students to enter the health professions. To make this possible, the HSLE supports educators in advancing their own knowledge about the health science fields and current science standards, and to take advantage of their own ongoing professional development opportunities.

For post-secondary education professionals, the HSLE will help their students find employers looking for interns and trainees, and help their graduates connect with employers that are looking for job candidates to fill critical positions in health care, research, mental health, and home health care. For secondary school educators, the HSLE brings you resources such as standards-aligned, high-quality curricula and materials. The HSLE will help both groups:

- Upgrade curricular offerings to give students the preparation they need;
- Provide opportunities for students to learn about all the health science opportunities available to them;
- Ensure that students have the lab, research, or work experience that colleges and employers demand;
- Connect students with rewarding internships and research assistantships.

*We have strategically redesigned our approach to health sciences curriculum development. We recently designed and implemented a health professions basic certificate program that includes two health care common core courses, Health Career Studies and Patient Care Technical. These courses represent the fundamental competencies that we want to teach with all of our health science and career program students. We will need to continue the development of better and more innovative partnerships towards health professions pathways. Otherwise, Chicago will not move the needle towards healthier communities and stronger economies.*

—Ebben Dotson, Faculty, Malcolm X City College