

What Are the 5 Health Science Career Pathways?

March 26th, 2020 | 10 min. read



Bri Stauffer

<https://www.aeseducation.com/blog/health-science-career-pathways>

There are five overarching industry pathways for CTE students interested in pursuing a career in healthcare.

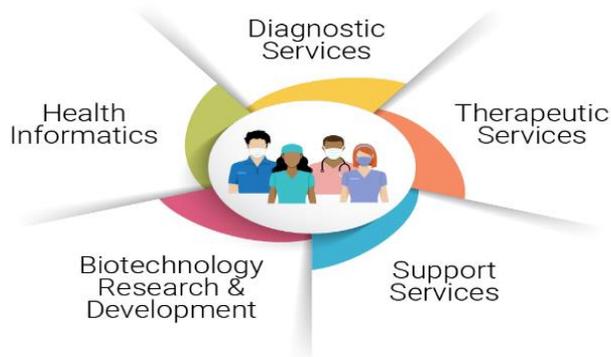
The five health science pathways are:

1. Diagnostic Services
2. Therapeutic Services
3. Health Informatics
4. Support Services
5. Biotechnology Research & Development

With hundreds of healthcare career options out there, it can be overwhelming for your students to make a decision.

That's why you need to provide your students with the information to help them choose the pathway (and potential career) that's right for them!

5 Health Science Career Pathways



On this page, we'll look at what each pathway entails, common careers within each one, and general requirements for positions in the pathways.

We'll also give you some ideas on how to help your students choose a healthcare career pathway.

But first, it's important to know the basics of the health science career cluster!

The Health Science Career Cluster



The health science cluster is one of 16 career clusters that make up career and technical education (CTE) in the United States.

This cluster is one of the most popular choices, with more than 35% of all CTE students pursuing healthcare careers.

Once a student has decided to pursue health science courses, they will then need to choose which health science career pathway most interests them.

This is necessary because each pathway has its own course requirements and ultimately leads students to different career options!

Each state uses the pathways to develop their health science programs, courses, and certification options.

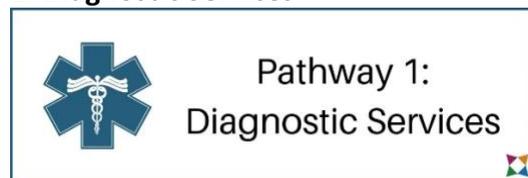
While states generally align with the pathways, the health science courses vary from state to state.

For example, in Florida there are more than 20 health science courses for middle and high school students. In Georgia, there are fewer health science courses, but a huge number of certification options.

While the details vary state to state, the importance of the health science career cluster still stands and the outlook for careers in health care are astonishing.

So now that we've covered the health science career cluster as a whole, let's dig into the career pathways!

1. Diagnostic Services



The diagnostic services pathway is made up of careers that use tests to detect, diagnose, and treat diseases, injuries, or other physical conditions.

Some common careers that fall under diagnostic services include:

- EKG technician
- Phlebotomist
- Radiology technician
- Ultrasound technician
- Dental laboratory technician

In general, someone in this pathway will need to be trained on using the proper equipment to run the tests and evaluations.

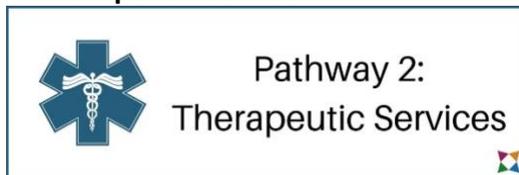
As part of this, they will also need to follow instructions and procedures to accurately complete tests. That requires keen evaluating and reporting skills to share what they have found with other medical professionals.

Someone in this pathway may not directly interact with patients, but that depends on the occupation they choose.

Many careers within diagnostic services require a specific level of education or training, but this can vary depending on the job.

In addition, many states require professionals to obtain a certification, registration, or licensure.

2. Therapeutic Services



The therapeutic services pathway is the most popular pathway in health science.

It's focused on working with patients to provide care, treatment, or counseling to improve the patient's status over time.

Common careers in therapeutic services include:

- Certified Nurse Assistant (CNA)
- Pharmacist
- Occupational therapist
- Paramedic
- Respiratory therapist

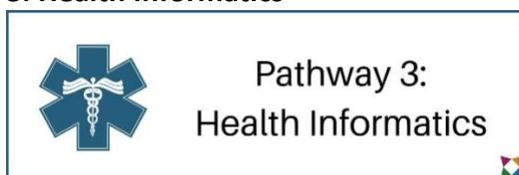
To work in therapeutic services, it's crucial to have great communication skills to effectively work with patients, relatives of patients, and other healthcare professionals.

In addition, because these professionals work with patients, they need to be quick thinkers and creative problem-solvers when meeting patient needs.

In terms of educational requirements, many jobs within therapeutic services require an Associate's or Bachelor of Science degree along with other training.

Depending on the career chosen within this pathway, students will also need to obtain a certification, registration, or licensure. These vary by occupation and can either be at the state or national level.

3. Health Informatics



The health informatics pathway involves a wide variety of occupations made up of people responsible for managing patient information, financial information, and computer applications related to health care.

This pathway includes careers such as:

- Medical administrative assistant
- Health information technician

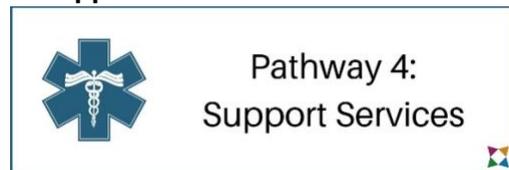
- Nurse manager
- Medical transcriptionist
- Health care administrator

Someone interested in health informatics must be able to analyze medical data and use correct billing codes for insurance and documentation. They'll also need a solid background on how a medical facility works and common informatics systems.

Careers in this pathway don't usually involve direct patient care, but someone in health informatics is often considered to be a patient advocate or supporter.

Because the careers vary so widely in health informatics, the level of education and certifications needed depends heavily on the specific job.

4. Support Services



The support services pathway is often unnoticed by patients, but it's what keeps healthcare facilities running. Support services employees work behind the scenes to ensure other health care professionals can accomplish their duties.

Some common careers in support services include:

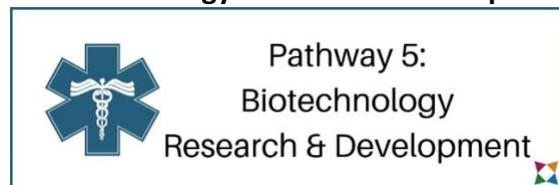
- Dietary technician
- Biomedical equipment technician
- Medical librarian
- Hospital maintenance engineer
- Central services technician

Careers within this pathway often require very specialized skills, but anyone in support services needs to be organized and detail-oriented.

Similar to health informatics, the education requirements for careers in support services can range depending on the position. However, it is rare to need a certification or licensure to obtain in a career in this pathway.

In addition, many employers offer on-the-job training to individuals interested in starting a career in support services.

5. Biotechnology Research & Development



The biotechnology research & development pathway is a great fit for students who excel in science classes. It includes a range of careers that use advancements in science and technology to improve healthcare.

These careers include:

- Toxicologist
- Biomedical engineer

- Forensic science technician
- Cytotechnologist
- Epidemiologist

This pathway is highly focused on science and math, so having strong abilities in these areas is crucial to success.

People who work in this pathway discover new information that paves the way for better treatments and medical devices!

Anyone interested in pursuing a career in this pathway will need a strong foundational education in science. In addition, an Associate's, Bachelor's, or Master's degree is required along with a state license for most positions.

Now that we've gone over the five healthcare career pathways, let's apply the information to your classroom!

Help Your Students Decide on a Healthcare Pathway

With so many healthcare career options out there, trying to nail down the right one for each student can be daunting in the span of a school year (or semester).

Often, this type of decision is made in a student's junior or senior year of high school when they need to take pathway-specific courses.

While this is a viable option for everyone, we believe it's important to introduce students to healthcare careers options much earlier.

Teaching health science career exploration as early as middle school can help students have a more defined path -- both in their schooling and with career goals.

But there aren't many resources out there to help you teach this critical topic to middle school students.

So where do you start?

We've put together a list of the **five best lessons for teaching health science career exploration in middle school** to help you get started:

1. An introduction to healthcare careers
2. The basics of career exploration
3. Healthcare career pathways
4. A look at careers in healthcare
5. Student reflections

Read the post to help give your students a clearer idea of their future as healthcare professionals!