Physician
What do Physicians do?

Physicians diagnose and treat injuries or illnesses. They examine patients; take medical histories; prescribe medications; and order, perform, and interpret diagnostic tests. They counsel patients on diet, hygiene, and preventive healthcare.

Physicians work in one or more of several specialties, including anesthesiology, family and general medicine, general internal medicine, general pediatrics, obstetrics and gynecology, psychiatry, and surgery.
When Is Math Used?

Doctors and nurses use math when they write prescriptions or administer medication. They also use math when drawing up statistical graphs of epidemics or success rates of treatments. Numbers provide an abundance of information for medical professionals. It is reassuring for the general public to know that our doctors and nurses have been properly trained by studying mathematics and its uses for medicine.

“Evidence-based medicine, the use of statistical models to guide diagnosis and treatment, is already changing how doctors practice.”

-Ian Ayres
A mother wants to check if her 9 month old baby is properly growing, so she takes her kid to a pediatrician. She is planning to knit special pjs for the baby’s first birthday, so she asks the doctor to predict the number of centimeters that her baby is expected to grow in the next three months.

How can the doctor help this mom?
First, the doctor measures the length (height) of the baby: he is now 73 cm.

Then, he asks the mom if she remembers the length of baby at birth. And of course she remembers... Little Johnny was exactly 50 cm at birth.

Then, he shows Johnny’s mom a big chart...
Johnny's length at birth is 50 cm. This places him on the green curve. At 9 months, he is expected to be 72 cm. Because he is actually 73 cm at 9 months, the mom is happy.
Boys

At 9 months, he is expected to be 72cm.

Johnny is expected to grow 4 cm between 9 and 12 months.

The doctor tells the mom that Johnny will be approximately 73 + 4 = 77cm on his birthday.
Required Math

- College Algebra
- Trigonometry
- Calculus I & II
- Linear Algebra
- Statistics and Probability
- In addition, each med school had their own math requirements
Becoming a doctor requires more training than most other jobs. It usually takes at least 11 years to become a doctor: 4 years of college, 4 years of medical school, and 3 years working in a hospital.

To become a doctor, you should study mathematics, biology, chemistry, physics, and English.
Works Cited

http://mathcentral.uregina.ca/beyond/articles/medicine/med1.html


https://www.studentscholarships.org/salary/469/physicians_and_surgeons.php

http://weusemath.org/?career=physician

http://www.medicalnewstoday.com/info/obesity/what-is-bmi.php