This research was conducted to discover the perceived use of mathematics in the medical field according to undergraduate Pre-Medicine students versus the actual use of mathematics in the medical field according to practicing physicians. In particular, the researchers intended to discover the discrepancies between using mathematics in medicine and Pre-Medicine students’ readiness to utilize mathematics in medicine. Therefore, the research question considered was: What is the actual use of mathematics in the medical field according to physicians and how does this compare with current pre-medical students’ beliefs about the use of mathematics? Six current Pre-Medicine students and three practicing physicians were interviewed. The overall results were that physicians and pre-med students believe that mathematics is important in the field, but the physicians stated that higher-level mathematics such as calculus will be helpful for pre-med students, contrary to some pre-med students’ answers. The results from this research may inform how mathematics education, particularly the requirements of mathematics courses, for future physicians can be improved. (Received September 20, 2016)