

## Chapter 01: An Introduction to Health Informatics

### Nelson and Stagers: Health Informatics: An Interprofessional Approach, 2nd Edition

#### MULTIPLE CHOICE

1. Dr. James, in studying patient safety in U.S. hospitals, found that the number of preventable adverse events leading to serious harm fell in the approximate range of \_\_\_\_\_ to \_\_\_\_\_ cases per year.
  - a. 4.4 million; 8.8 million
  - b. 440,000; 880,000
  - c. 1 million; 5 million
  - d. 40,000; 100,000

ANS: A

Dr. James found some 440,000 cases of lethal harm each year and estimated that the incidence of serious (but not lethal) harm was 10 to 20 times that figure.

DIF: Cognitive Level: Analyze

REF: p. 1

2. Health informatics is both a \_\_\_\_\_ as well as a(n) \_\_\_\_\_.
  - a. discipline; field of study
  - b. profession; practice
  - c. field of study; art
  - d. profession; discipline

ANS: D

Health informatics is a discipline, or field of study, in the same sense that “medicine,” “sociology,” and “pharmacy” are fields of study. It is also a profession, practiced by thousands of informaticians in a number of varied roles within the healthcare industry.

DIF: Cognitive Level: Remember

REF: p. 2

3. The top three uses of the U.S. Army’s telehealth network include all of the following EXCEPT \_\_\_\_\_.
  - a. behavioral telehealth
  - b. cardiology
  - c. otolaryngology
  - d. dermatology

ANS: C

The biggest use of the U.S. Army’s telehealth network is for behavioral telehealth, followed by cardiology and dermatology. While telemedicine is making inroads in otolaryngology, it is not among the top three uses for the U.S. Army.

DIF: Cognitive Level: Remember

REF: p. 3

4. What is the main idea of the subsection titled “Why Informatics Is Needed in Healthcare: An Example”?
  - a. An interoperable healthcare system that provides clear, concise patient data and information among institutions is lacking in many facilities, and its presence would

- greatly facilitate things such as patient transfers.
- b. The quality of discharge communication during transfers of geriatric patients from hospital to nursing home is generally high.
  - c. Skilled nursing facilities aren't trained enough to identify the information they need to facilitate a high-quality transition of a patient into their facility.
  - d. Healthcare informaticians alone are responsible for building interoperable systems that will facilitate communication between and among healthcare facilities.

ANS: A

This subsection takes the specific case of the transfer of geriatric patients from a hospital setting to a long-term skilled nursing facility (SNF) and uses it to illustrate the great need for an interoperable healthcare system that allows patient data to be transferred quickly, clearly, and concisely among facilities.

DIF: Cognitive Level: Analyze

REF: p. 3

5. The chapter makes the argument for increased automation for such things as managing supplies, because studies have shown that \_\_\_\_\_.
  - a. only 70% of a nurse's day is actually spent at patients' bedsides
  - b. nurses waste "an hour a shift" finding equipment
  - c. over \$14 million in nurses' wages nationwide were spent in 2011 on tasks like hunting for equipment
  - d. patients report being comforted by the presence of robotic technology in their rooms

ANS: B

The chapter focused on using health informatics and technology solutions to free up nurses' days so they can spend more time at patients' bedsides and less on extraneous duties. A 2011 study by the Robert Wood Johnson Foundation found that nurses do use an hour per shift of their time simply hunting down equipment.

DIF: Cognitive Level: Understand

REF: p. 3 | p. 4

6. The \_\_\_\_\_ is one of the oldest—and still widely used—methods for building and implementing software applications in IT arena.
  - a. TUG
  - b. clinical decision support system
  - c. HIPAA
  - d. SDLC

ANS: D

Though it's been through a number of iterations and adjustments, the software development life cycle remains the tested and tried-and-true method for studying, building, implementing, and maintaining a health information system.

DIF: Cognitive Level: Remember

REF: p. 4 | p. 5

7. Which of the following statements about EHRs is false?
  - a. The percentage of hospitals using an EHR jumped from 59% to 75% from 2013 to 2014.
  - b. Stage 2 is the minimum level of EHR required in order to be counted as using

EHR.

- c. By 2014 50% of physicians in the United States had implemented an EHR, with another 13% in the process of implementing one.
- d. There were no EHR systems in U.S. hospitals in 2009.

ANS: C

The text gives data for physicians using EHR in 2013, stating that by that year 63% had implemented some form of EHR, with another 20% in the process of implementing one.

DIF: Cognitive Level: Apply

REF: p. 6

## **MULTIPLE RESPONSE**

1. Internationally, healthcare delivery systems face a number of common challenges, including: *(Select all that apply.)*
  - a. cost and the need to cut costs and demonstrate value.
  - b. a lack of new HIT advances.
  - c. dynamic forces like workforce shortages and increased consumerism.
  - d. an international population that is growing increasingly younger and healthier.
  - e. increasing government regulation to protect patient health, safety, and privacy.

ANS: A, C, E

The need to contain costs, forces like workforce shortages and increased consumerism, and increasing government regulation are all challenges faced in common globally by healthcare delivery systems. There is no lack in new HIT advances; in fact adoption of such new technologies is a challenge in itself, as is an aging population that will require more healthcare than before.

DIF: Cognitive Level: Understand

REF: p. 6 | p. 7