Reading Comprehension A.) Introduction: Read the introduction to the article and answer the following questions: 1.) Find two ways to say the patient became infected with malaria: to come down with was stricken with 2.) What happened when the patient was given artesunate? He slipped into a coma, his kidneys showed signs of failing, and the concentration of malarial parasites in his blood grew higher. 3.) Why did hospital investigators decide to look into the case? Because artesunate is safe, generally well-tolerated and highly effective, hospital investigators decided to look into the case to try to understand what might have gone wrong. 4.) Why are fake drugs so dangerous? At their best, falsified drugs have none or too little of the active ingredient; at their worst, sellers are providing hospitals and patients with "drugs" that are life-threatening poisons. 5.) Find synonyms in the text for the following words/expressions: a.) to cause/to provoke : ___ _ d.) an epidemic : ___outbreak trigger b.) negative side effects: adverse reactions e.) to take legal action against someone: prosecute c.) very worried and upset: distraught

Reading Comprehension

B.) Jigsaw Reading: Find and answer the questions on the list that correspond to your section of the article.

Text A: 2, 3, 6, 10, 11, 14, 18, 21 Text B: 1, 2, 8, 9, 17, 20 Text C: 4, 5, 7, 12, 13, 15, 19

1.) Who is Amir Attaran and what solution does he suggest ? Text B

a professor of law and medicine at the University of Ottawa, suggests an international treaty whereby countries would all agree on a set of laws.

2.) What is Operation Pangea? When was it founded? Text A and Text B

-Interpol's pharmaceutical investigation unit

6.) Have you heard of other cases linked to fake drugs?

-founded in 2005

- "There is one group acting as an international regulator for fake drugs. In the past seven years, Interpol's Operation Pangea has led to the <u>seizure</u> of millions of packages of falsified drugs, many of which were sold online. This is always touted as a great example of successful international collaboration—one Pangea bust in 2014 involved authorities from 111 different countries, according to an FDA <u>press release</u> at the time."

3.) How many pills were seized by Operation Pangea in 2011 ? How many were seized in 2015 ? Text A 2.4 million in 2011, 20.7 million in 2015!

4.) What is a mass spectrometer? Text C

a tool used to analyze the chemical makeup of foods, pharmaceuticals, etc.

5.) What is the CD-3? Text C it's a handheld device invented by the FDA that emits ultraviolet and infrared light onto pills and their packaging to determine if they are genuine.

6.) Why are criminals so interested in the fake drug business? Text A

Many experts believe that the problem is on the rise and that more criminals are turning to pharmaceuticals for a simple reason: low risk and high reward. "The penalties are relatively weak for trading in falsified pharmaceuticals compared to those for trade in narcotics and human trafficking,"

And criminals can make a lot of money by falsifying drugs that are in high demand, in short supply or are exorbitantly expensive for consumers.

7.) How do fake drugs make diseases more resistant? Text C

drugs with too little of the active ingredient kill some of the bacteria but leave the hardiest in the body to multiply and then spread.

8.) Why are some countries reluctant to enforce international regulations? Text B

Some countries, like India and Brazil, are dragging their feet on international enforcement regulations because poor-quality pharmaceuticals make up such a large part of their economy, Attaran says.

9.) According to the text, what is the difference between counterfeit and fake drugs? Text B

Counterfeit drugs are those that infringe on a patent registered by the pharmaceutical company. Counterfeit Viagra, for example, might contain the same ingredients as the legitimate drug, but Pfizer didn't authorize the pill's production and doesn't get a cut of the profits. Counterfeit drugs don't necessarily endanger people's lives—they're more a threat to Big Pharma's bottom line than anything else. From a public health perspective, falsified drugs are the real menace, as they kill many thousands of unsuspecting people around the world each year.

**** the question should have been "difference between counterfeit and falsified drugs". I think "fake drugs" is the general term that includes both counterfeit and falsified medication.

10.) Why is it so difficult to estimate the number of deaths caused by fake drugs? Text A

But it's impossible to know for sure, in large part because it's so difficult to know that it was, in fact, a fake drug that killed someone. Maybe the diagnosis was wrong. Maybe a quality drug was administered too late.

11.) What is the FDA? Text A

Food and Drug Administration= drug regulation agency in the U.S.

12.) Why did Patricia Tabernero ask local volunteers to buy the drugs she needed to carry out her experiment? Text C

But they didn't want to tip off the pharmacists, who might skew their sample by giving the researchers more or fewer suspicious drugs, or even alert local criminals involved in manufacturing the fakes. So Tabernero and her European colleagues enlisted local volunteers to enter the pharmacies and ask, "I would like to buy some drugs for my friend who is sick. We are traveling and work in construction. May I see which ones you have?"

13.) What was Tabernero testing? What was successful/unsuccessful about her experiment? Text C

Tabernero and her colleagues decided to try out the CD-3, in what would become the <u>first field test</u> of the device, in a developing country.

The results were encouraging: The local officials caught on quickly, mastering the device in just two days of training. And it worked well. They shipped all the tested pills to a U.S. Centers for Disease Control and Prevention lab for chemical analysis, to see how well the device did, and it was nearly 100 percent accurate for all the samples it tested.

However, only 35 % of the samples could be evaluated by the CD-3. To see if a drug is legitimate, the instrument needs to compare it with a genuine example, which regulators may not have if the drug is rare or if the manufacturer changes the formula without warning.

14.) Why is it so difficult to control the fake drug traffic? Text A

A single pill might pass through a dozen countries during its manufacturing process, which offers many opportunities for criminals to put fake drugs into the supply chain. For example, chemicals synthesized in China can be combined with fillers in India and then packaged in Mexico before arriving at a pharmacy in Canada. Often, fake-drug-trafficking criminals have extensive international networks.

The international nature of the fake-drug trade is what makes it such a difficult problem to manage. "Very few of the 196 countries in the world have a specific dedicated service to deal with pharmaceuticals," says Aline Plançon, the assistant director of Interpol's program fighting counterfeit medical products and pharmaceutical

crime. "Others can't enforce their laws because they don't have the capacity or budget."

But criminals often use falsified papers to sneak their fake drugs through checks, and the WHO estimates that about 30 percent of countries worldwide don't have a functional drug regulation agency equivalent to the Food and Drug Administration (FDA) in the U.S.

15.) How have cellphones helped the fight against fake drugs? Text C

The widespread use of cellphones has helped: Legitimate drug manufacturers are starting to design packaging with scratch-off codes that a consumer texts to a special phone number. They then receive an automatic response confirming whether or not the drug is genuine.

16.) What does SSFFC stand for ? Text B

The WHO has used and will continue to use the term "substandard, spurious, falsely labeled, falsified and counterfeit"—SSFFC—to talk about the larger public health issue.

17.) What role does the WHO play in dealing with the fake drug problem? Text B

The organization hosts and mediates the <u>conferences</u> in which countries meet to discuss what they can do together to reduce the number of falsified pharmaceuticals reaching patients. It also is the central clearinghouse for <u>reports of fake drugs</u> across the world.

18.) Why can it be dangerous to buy your medication from online pharmacies? Text A

Studies show that about 90 percent of drugs purchased online come from a different country than what the website claims, and Internet pharmacies often buy drugs from countries with lax regulatory systems.

19.) Why hasn't the United States taken stronger action? What does the author think is necessary for the government to become more vigilant? Text ${\bf C}$

Nevertheless, one of the reasons the U.S. hasn't taken stronger international action is that most citizens don't know the problem is so pervasive. Americans enjoy some of the strongest regulatory and enforcement systems in the world. Despite the occasional problematic batch here and there, what consumers buy at their local pharmacy in the States is probably genuine, which means Americans are less likely to push our leaders to make changes.

Citizen awareness could make all the difference.

If citizens force the U.S. to play a larger role in the international conversation about falsified drugs, the drug supply would be safer within U.S. borders but would also extend far beyond. With the pressure on, countries would likely band together to share detection technologies, collaborate on a universal database of legitimate pharmaceuticals and pass international standards with real consequences.

20.) Why does Attaran criticize the WHO? Text B

1)close ties with Big Pharma

"But Attaran and others say that this is really because the WHO doesn't want to alienate Big Pharma a close partner and financial supporter."

"And in recent years, the WHO has been accused by journalists and nonprofits of falling under the influence of Big Pharma after accepting donations from organizations explicitly funded by it"

2)refuses to take a stand-treats counterfeit and falsified drugs the same, even though counterfeit drugs don't affect public health, only Big Pharma profits. Attaran thinks they need to focus on falsified drugs.

"But, to date, the organization has declined to push countries to sign fake-drug-related treaties and has not taken a strong stand on separating out the public health issue of falsified drugs from the counterfeit concerns of manufacturers."

21.) Do customs authorities always seize suspicious drugs? Text A

So officials seize drugs only if they are both suspicious and likely to affect a large number of people. "Seizures happen if there's a lot of a product, often thousands of dollars' worth," the NIPRCC spokesman adds.

D. DESCRIBING GRAPHS/TRENDS

Read the following sentences from the	text	:
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- « Operation Pangea says it seized 2.4 million fake and illicit pills in 2011; in 2015, the total number of pills seized <u>jumped</u> to 20.7 million. »
- « The number <u>has likely risen</u> over time. »
- 1.) Do you know any other verbs/expressions to describe a growing trend ?
- 2.) Do you know any verbs/expressions to describe a falling trend?
- 3.) Which of the verbs in the box indicate
- a.) a rise
- b.) a sharp rise
- c.) (almost) no change
- d.) a fall
- e.) a sharp fall

To soar b	To rocket b	To plummet e	To keep steady c
To weaken d	To increase a	To decrease	To remain stable c
To collapse e	To recover a	To drop	To decline d
To plunge e	To jump b	To remain constant c	To grow a

4.) Look at the following statistics from Operation Pangea and complete the sentences below with verbs from the box (using the correct verb tense) and prepositions.

Dates	2009	2010	2011	2012	2013	2014	2015
Participating countries	25	44	81	100	99	111	115
Websites shut down	153	297	13,500	>18,000	13,700	10,600	2,414
Products seized	167,000	>2,000,000	2,400,000	3,750,000	9,800,000	9,400,000	20,700,000
Arrests	59	87	92	80	213	239	156

1.	The counterfeit drug tradehas increased/grown/expanded, etc dramaticallysince 2009.
2.	From2012to2013, the number of participating countries in Pangea operationsremained steady/remained constant
3.	The number of products seized soared/sky-rocketed/jumpedto 20.7 million.
4.	The number of arrestsrose/increased, etcby35 % in 2015.
	The number of websites shut down by Pangeadecreased/fell/collapsed/plunged/dropped from 10,600 to