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### 3: Global Health Issues (pages 77–129)

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#### Reading 1: “Global Trends in Tobacco Use”

##### Pre-Reading (page 79)

The pre-reading questions for this selection are relatively straightforward and generally require little time.

1. Students are usually familiar with the major health consequence of smoking (increased risk of cancers of the lung, mouth, and throat). They may or may not be as familiar with other health risks (increased risks of heart disease and stroke, emphysema, chronic bronchitis, chronic obstructive pulmonary disease).
- 2.–3. These questions are more directly related to the focus of the reading. You might wish to have students try to predict the answers prior to looking at the content of the reading and then preview the reading to verify their predictions.

Before getting into the reading, have students take a few minutes to read the introduction to Reading 1. Alternatively, teachers may wish to read the introductory paragraphs aloud. Students should understand before reading the World Bank report that the data discussed in the report were collected in the 1990s. You might ask critical questions such as:

- How might this affect the credibility of the report? (The data may be out-of-date. A more recent report might be preferable.)
- Why do the authors of this text (Thinking Beyond the Text) think this data from the 1990s might still be relevant. (Demographic trends do not often change dramatically over the short term.)

Ask students to propose a critical approach to the reading of this World Bank report. (Suggested answer: Use the report to find out what the trends were throughout the 1990s. Then try to find out if any reports are available based on data collected since 2000.)

##### Reading (pages 80–86)

Proceed to the reading. The reading has several charts and graphs, and these will be exploited in the **Critical Focus** section. However, as a first reading, you might wish to have students read the entire text once to familiarize themselves with the content and complete **Getting at the Matter** as a written assignment. This can be done in-class or out-of class, whichever is more easily scheduled.

##### Critical Focus: Reading the Graphs and Tables in a Text (pages 87–89)

Have students read the **Critical Focus** material. Go over basic vocabulary (e.g., legend, title, data sets, data points, x-axis, y-axis). Ask students to identify examples of each. Discuss the principal characteristics of each type of graph. Finally, go over the guidelines for giving a systematic description and explanation of a graph.

### Critical Focus: Application (page 90)

One of the best ways to become proficient in reading graphs is to try to clearly explain the graph to someone else. Having a systematic approach is also helpful. Have students form groups of three to four and choose a graph to be responsible for. Each student will study the selected graph outside of class and present it to his or her group at the next class meeting. For additional practice, students can search for additional graphs related to the topic of the reading and present those to the class.

### Getting at the Matter (page 90)

Responses may vary in style, but questions are primarily literal comprehension questions.

1. In general, smoking rates are increasing in the developing world but decreasing in the developed world. The region with the greatest total number of smokers is the East Asia and Pacific region (401 million) followed by Eastern Europe and Central Asia (148 million). However, percentage-wise, smoking rates are highest in Eastern Europe and Central Asia where 41 percent of the population smokes, followed by East Asia and the Pacific where 32 percent of the population smokes. The smoking rate in Latin America and the Caribbean is only slightly lower at 30 percent, while 25 percent of the population in the Middle East and North Africa smokes. The lowest smoking rates are in South Asia and Sub-Saharan Africa.
2. In the past, smoking was more prevalent among the affluent than among the poor, and men tended to be much more likely than women to smoke. However, over the last 30–40 years, smoking rates among affluent men have decreased markedly compared to more modest decreases among poor men. At the same time, smoking rates have increased among women, particularly in high-income countries.
3. Most smokers take up the habit before the age of 25. The likelihood of taking up smoking after age 25 is relatively low. Public health professionals trying to discourage smoking uptake should focus most of their efforts on strategies for discouraging the youngest potential smokers from experimenting with tobacco.
4. Free trade tends to create conditions more favorable to the promotion, affordability, and availability of tobacco, and therefore it encourages the spread of smoking.
5. In general, smokers in high-income countries are currently much more likely to quit smoking than smokers in lower-income countries.
6. While the reading does not specifically answer this question, we can speculate that a country such as China with its very large population, significant increases in smoking uptake among 15- to 19-year-olds and low rate of quitting might expect an epidemic of smoking related-diseases in the future, especially if current trends are not reversed.

### Academic Vocabulary Focus (page 91)

Suggested answers. Most forms are represented, but the chart is not exhaustive.

<b>Noun</b>	<b>Verb</b>	<b>Adjective</b>	<b>Adverb</b>
availability	avail	available (Par. 7, 9, 10)	_____
compilation	compile (Par. 6)	_____	_____
consistency	consist	consistent (Box 1.1)	consistently

<b>Noun</b>	<b>Verb</b>	<b>Adjective</b>	<b>Adverb</b>
contribution	contribute (Par. 5)	contributing	_____
correspondence	correspond	corresponding (Par. 7)	correspondingly
data (Par. 6, 7, 9, 10)	_____	data	_____
liberalization (Par. 5)	liberalize	liberalized (Par. 5)	_____
proportion (Par. 4, 7, 11)	_____	proportional proportionate	proportionately
region (Par. 4, 6)	regionalize	regional	regionally
source (Table 1.1)	source	source	_____
_____	specify	specific (Box 1.1)	specifically
variation (Par. 6) variable	vary (Par. 11)	various varied	variously

### Fill-in Exercise (pages 92–93)

1. availability, available
2. compilation
3. consistently
4. contributed
5. corresponds
6. liberalization
7. regional
8. proportion, proportion
9. specifically
10. variables

### For Discussion (page 93)

Responses will vary.

## Reading 2: “The Human-Animal Link”

### Pre-Reading (page 94)

The pre-reading questions challenge students to recall what they know about infectious diseases. Encourage students to use bilingual dictionaries if they cannot come up with English terminology for diseases that they can name in their own languages. The second part of Question 1 gets students to begin thinking about the origins of some important infectious diseases that have global implications. Question 2 is intended to generate greater awareness of the importance of the topic in an increasingly interconnected world.

### Critical Focus: Previewing a Text (page 96)

Ask students to read the boxed strategy explanation. Review the purposes of *previewing* and the technique.

### Critical Focus: Application (Previewing) (page 96)

Give students about ten minutes to preview the reading. Then have them pair up and discuss what they learned about the reading based on their previewing. It is instructive to follow this up with a whole group discussion. Students often learn a lot from the previewing and the teacher can point that out as evidence of the power of previewing.

### Critical Focus: Annotating a Text (page 97)

Ask students to read the boxed strategy explanation. Review the purposes of *annotation* and the techniques. While advanced students are often familiar with the process of annotating, some students rarely use it. It might be beneficial to make a transparency of the first several paragraphs of the reading and demonstrate the process, trying to incorporate as many of the suggestions from the strategy box as you can.

### Critical Focus: Application (page 97) and Reading (page 98)

After previewing the reading and discussing the process of annotation, the reading can be assigned as an in-class or an out-of-class activity. Students should annotate the text. On the next class meeting, have students pair up and discuss what they annotated and why.

### Getting at the Matter (page 106)

The questions in this section cover most of the important points of the reading.

1. They argue that we need to look at infectious disease in global perspective and that we need to pay more attention to transmission of disease between different species. Not doing this has economic and political, as well as health consequences.
2. A very large percentage (60 percent) of the 1,415 known infectious diseases can infect animals as well as humans. This makes it important that we: 1) regulate trade in wild and domestic animals, 2) institute worldwide systems for monitoring the health status of animal and human populations and 3) establish systems for sharing epidemiological information.
- 3.

<b>Disease</b>	<b>Animal Link</b>	<b>Transmission</b>	<b>Origin</b>
Avian flu (H5N1 type A)	Birds	not mentioned, but generally thought to be linked to handling of infected birds	not stated, but often cited as endemic in China
HIV/AIDS	Primates	consumption of primates with simian immunodeficiency virus	Africa
Ebola Virus	chimpanzees, gorillas, monkeys	handling of meat from infected animals	Africa

<b>Disease</b>	<b>Animal Link</b>	<b>Transmission</b>	<b>Origin</b>
SARS	palm civets, raccoon dogs, ferrets, badgers	contact with animals sold in wildlife markets	Guangdong Province, China
Tuberculosis	domestic cattle, wild bison, buffalo, lions	not discussed	Origin unclear but currently endemic in wild bison in Canada, deer in Michigan, Cape buffalo and lions in South Africa
Bovine spongiform encephalopathy (mad cow disease)	domestic cattle, sheep	not clearly stated, but known to be linked to consumption of infected animals	United Kingdom

4. Global trade in live wild animals is extensive. Much of the trade is illegal and informal. Tens of millions of animals pass through major trading centers yearly, where the close contact between humans and animals results in the potential transmission of dangerous pathogens. Some of these animals are consumed as food. Diseases may be transmitted from animals to hunters and marketers, to domestic animals, wild scavengers, and the local population, and even exported around the world.
5. Animal disease specialists uncovered a mistaken assumption about the direction of transmission for avian flu. It was originally thought that the disease was being spread by wild birds, when in fact domestic birds were hosting the disease. In general, observation suggests that domestic animals pose a greater threat to wild animals than vice versa. The work of these specialists also suggests that the idea of preventive health care should be extended to humans, domestic animals, and wild animals—all three. The author suggests that a broad, cross-species approach to disease is overdue.
6. Institution of a system of worldwide surveillance of disease outbreaks among wildlife:
  - a. greater regulation of international trade in wild and domestic animals
  - b. inclusion of multiple perspectives in making important decisions related to global epidemics (e.g., input from experts in public health, agriculture, environmental conservation, and law)
  - c. more funding of efforts to gather, evaluate and share information on infectious disease
  - d. more money for initiatives that recognize the importance of wildlife health and conservation in relation to human health care

### Academic Vocabulary Focus (page 107)

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|------|-------|
| 1. p | 9. n  |
| 2. k | 10. d |
| 3. i | 11. m |
| 4. a | 12. o |
| 5. g | 13. f |
| 6. b | 14. h |
| 7. j | 15. e |
| 8. c | 16. l |

## For Discussion (page 107)

Answers will vary.

## Reading 3: “On Being an Adolescent in the 21<sup>st</sup> Century”

### Pre-Reading (page 108)

Depending on the background knowledge of the students, it may be useful to prepare a list of some common health issues that are relevant to adolescents. You can use the ten items from Table 1.1 in the reading and include some additional health problems, such as anorexia nervosa, bulimia, chicken pox, diphtheria, flu, hepatitis, malaria, measles, mumps, obesity, polio, rubella, schizophrenia, small pox, tetanus, tuberculosis, and yellow fever. Instruct the students that some may be common to both developed and developing countries while others will be more prevalent in only one of the two. (Students may also need an explanation of what distinguishes developed from developing countries as the *-ed* and *-ing* participial endings may still be a source of confusion for some.)

You may want to prepare the list of health issues on an overhead or write the list on the board so that it can be reviewed before placing the students into groups. Once the students have been placed into groups, have them work together for 10–15 minutes to fill in the chart. After all of the groups have finished, give each group a few minutes to present their charts to the rest of the class justifying their specific decisions on the placement of the items. An alternative method is to prepare a second overhead with the chart or draw the chart on the board that can then be filled in by the teacher or a student volunteer. Again, you can have the students work in groups for 10–15 minutes, and then ask them to take turns providing their answers one at a time, which can be followed up by their justifications.

### Reading (pages 109–22)

As with Reading 1 of this unit, the current reading contains graphs, tables, and in-text citations; therefore, you will probably want to have the students read the text through at least once on their own. Since the reading is quite information intensive, you may also want to break the reading up and discuss the four sections over a period of two or three days depending on the level of the group. You could also divide the reading into two parts: text and graphics and assign them separately. One possibility is to assign the **Reading** and **Getting at the Matter** together as one assignment followed on another day by all or some of the graphs. You may even wish to try reversing this order and assign the graphs first and saving the text for another day.

### Critical Focus Review (pages 123–24)

These review activities help students stay in touch with previously introduced skills and engage students in multiple opportunities to engage with the texts in this unit. You might help them

prepare for these by reviewing with them the **Critical Focus** materials where the present tasks were first introduced.

Suggested answers for item Question 2.

<b>Issue</b>	<b>Citation</b>	<b>Source</b>
What is a DALY (disability adjusted life year)? How is it measured?	(Murray & Lopez, 1996)	"The Global Burden of Disease"
Adolescent tobacco use	(Warren et al., 2000)	"Tobacco Use by Youth: A Surveillance Report from the Global Youth Tobacco Survey Project"
Premarital intercourse —Comparison of median age of marriage and first intercourse. Boys compared to girls	Population Reference Bureau (2000)(Brown, et al., 2001)	"The World's Youth"
Contraceptive use among adolescents	(Population Reference Bureau, 2000)	"The World's Youth 2000"
Teen pregnancy rates	(Alan Guttmacher Institute, 1998)	"Into a New World: Young Women's Sexual and Reproductive Lives"
Pregnancy related deaths	(United Nations Children's Fund, 1998)	"Progress of Nations 1998"
Infant mortality	(Population Reference Bureau, 2000)	"The World's Youth 2000"
HIV infection in 15–24 year olds	(Joint United Nations Program on HIV/AIDS, 2001)	"Children and Young People in the World of AIDS"
HIV/AIDS and life expectancy	(United Nations, 2000)	"World Population Prospects. The 1998 Revision. Volume 3: Analytical Report"
Levels of education	(The World Bank, 1993)	"World Development Report 1993—Investing in Health"
Contraception use on the rise	(Population Reference Bureau, 2001)	"Youth in Sub-Saharan Africa: A Chartbook on Sexual Experience and Reproductive Health"
HIV prevalence in Uganda and Zambia	(Joint United Nations Program on HIV/AIDS, 2000)	"Report on the Global HIV/AIDS Epidemic"

## Getting at the Matter (page 125)

Responses may vary in style, but questions are primarily literal comprehension questions.

1. The DALY or Disability—Adjusted Life Years is a measurement that was created by researchers to quantify the impact of disease throughout the world in terms of years of life lost due to premature death from disease and decreased quality of life due to disability. The DALY is useful because it provides health experts with a way of comparing the relative burdens of various diseases in various regions and within various populations. The problem with the DALY is that it does not take into account behaviors such as smoking, drinking, and drug abuse that may lead to illness only after many years.
2. According to the article, the general health of adolescents in the developed regions was slightly better than that of adolescents in the developing regions. Only three out of the top ten causes of ill health are shared by adolescents in both the developed and the developing regions: unipolar major depression, road traffic accidents, and self-inflicted wounds; however, these three factors rank differently within the groups. While infectious diseases and anaemia are more prevalent in the developing regions, mental health problems tend to affect more adolescents in the developed regions. (This is a good time to have the students look back at the pre-reading assignment and see if the diseases and health related problems that they identified agree with these findings.)
3. A higher proportion of boys report having had premarital sex. It is also more typical for boys than for girls to report having sexual encounters with numerous partners. Girls, on the other hand, are more likely than boys to report having had their first sexual experience with their fiancé. While both males and females report having had coerced sex, it is more prevalent among females. One reason the article gave for the difference in the reporting of sexual activity is that males are more likely to over-report while females tend to under-report such activity.
4. Sexual activity places adolescent females at higher risk of death as a result of various pregnancy related causes. Moreover, sexual activity places all adolescents, male and female, at risk of contracting both curable and incurable sexually transmitted infections as a result of unprotected intercourse.

## Academic Vocabulary Focus (page 126)

This is a good assignment to be completed as homework.

- |      |       |
|------|-------|
| 1. b | 9. a  |
| 2. b | 10. a |
| 3. a | 11. b |
| 4. b | 12. o |
| 5. b | 13. f |
| 6. a | 14. h |
| 7. a | 15. e |
| 8. b | 16. l |

## For Discussion (page 128)

Here we have provided a choice of two discussion topics. The first topic is more general and less likely to be perceived as culturally inappropriate. Topic A encourages students to think about what health issues seem most relevant for adolescents in the students' home countries. Topic B deals with health

issues arising out of the adolescent's developing sexuality and may not be appropriate for some classes. This second discussion should not be attempted if the teacher is uncomfortable with it, or if the class includes any members of cultural groups for whom open discussion of sexuality would be offensive or inappropriate. If you see some value in Topic B but are not sure how your class would receive it, you could consider preparing a small paper ballot (an index card perhaps) on which students could give feedback on the appropriateness of the topic. Your ballot would say:

Check One:

- 1. I think Topic B is a good topic for discussion. I would NOT feel uncomfortable discussing it in class.
- 2. I do NOT think Topic B is a good topic for discussion. I would feel uncomfortable discussing it in class.