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INTRODUCTION TO HEALTH DISCOURSE

Учебно-методическое пособие по дисциплине «Аналитическое чтение»
для студентов направления подготовки Филология 45.04.01

Симферополь
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Составленное учебно-методическое пособие предназначено для студентов вузов, которые изучают английский язык как основной иностранный. Его главной целью является формирование прочных знаний студентов в процессе усвоения профессионально ориентированных дисциплин, важной составляющей которых является аналитическое чтение.

Данные материалы могут быть полезными для всех, кто изучает и преподаёт английский язык как в высших учебных заведениях.

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ПРЕДИСЛОВИЕ INTRODUCTION

К актуальным векторам современного общественно-научного дискурса относится дискурс о здоровье. Феномен здоровья имел разные трактовки в зависимости от эпохи, уровня познания, развития общества и господствовавших мировоззрения и научных теорий. Ключевым аспектом современного дискурса является понимание его социальной значимости.

В самом широком смысле знание специфики дискурса о здоровье поможет филологу лучше понимать, как современные люди относятся к здоровью, какие стереотипы и предубеждения существуют в этой области, а также как эти факторы могут влиять на принятие решений о здоровье. Понимание сущности данного феномена позволит участвовать в разработке образовательных программ и курсов, направленных на повышение осведомленности о здоровье и профилактику заболеваний на профессиональном уровне.

В условиях пандемии новой коронавирусной инфекции изучение социальных детерминант здоровья приобретает особую актуальность. Их анализ позволяет сделать вывод, что в условиях такого экзистенциального кризиса здоровье индивида и общества превращается в феномен социального конструирования, в основе механизма которого лежат такие факторы, как особенности организации и функционирования национальных систем здравоохранения, уровень доступности ресурсов для сохранения своего здоровья, включая доступ к медицинским услугам, уровень информирования населения о рисках нового заболевания, возможностях защиты и профилактики здоровья, степень социального доверия, уровень социальной солидарности, степень цифровой социализации, включающей уровень цифровой грамотности, уровень санитарной грамотности населения.

В основу учебного пособия легли материалы ВОЗ, ООН и других международных организаций, которые знакомят студентов с основными международными документами об эпидемиях COVID-19, HIV/AIDS, эпидемии туберкулеза. Содержание текстов отражает основные подходы к борьбе с эпидемиями, что позволяет формировать у студентов наиболее полное и адекватное представление об этих социально значимых явлениях. При составлении глав и подразделов были использованы разные виды текстов (печатные тексты, иллюстрации, графики, таблицы, плакаты, мультимедийные тексты), что позволяет развивать необходимые в современной медиа среде умения работы с текстом. Упражнения, направленные на работу с печатным текстом, предполагают овладение стратегиями чтения (для общего понимания текста, поиска и извлечения информации), а также умениями обобщения и интерпретации информации. Освоению новой лексики способствует выполнение тренировочных упражнений с опорой на тексты и прилагающийся глоссарий.

Особое внимание в пособии уделяется медиа текстам. В конце каждого подраздела имеются задания для работы с мультимедийными материалами.

Закончив изучение предложенного материала, студент сможет:

- 1) рассказать о современных научных теориях, изучающих истоки обозначенных проблем и возможные пути их решения;
- 2) анализировать информацию о международных соглашениях, направленных на решение данных проблем;
- 3) дискутировать на тему возможного развития ситуации;
- 4) объяснить, как зависит от каждого человека решение данных проблем;
- 5) создавать собственные медиа продукты по данной тематике.

В преподавании дисциплины «Аналитическое чтение» для студентов направления подготовки 45.04.01 Филология данное учебно-методическое пособие может использоваться в аудиторной, самостоятельной и индивидуальной работе студентов.

UNIT 1. THE EPIDEMIC OF COVID-19

CHAPTER 1. WHAT IS COVID-19?

1 A. Read the text below and answer the questions:

- a) What are the most common symptoms of COVID-19?
- b) Is full recovery possible without hospital treatment?
- c) Is vaccination the only way of COVID-19 prevention?

1 B. Read the text and confirm your answers. Were you right in all your suggestions?

Overview

COVID-19 is the disease caused by the SARS-CoV-2 coronavirus. It usually spreads between people in close contact. Anyone can get sick with COVID-19 and become seriously ill or die, but most people will recover without treatment. People over age 60 and those with existing medical conditions have a higher risk of getting seriously ill. These conditions include high blood pressure, diabetes, obesity, immunosuppression including HIV, cancer and pregnancy. Unvaccinated people also have a higher risk of severe symptoms.

Symptoms

People may experience different symptoms from COVID-19. Symptoms usually begin 5–6 days after exposure and last 1–14 days.

The most common symptoms are fever, chills, sore throat. Less common symptoms are muscle aches and heavy arms or legs, severe fatigue or tiredness, runny or blocked nose, or sneezing, headache, sore eyes, dizziness, persistent cough, tight chest or chest pain, shortness of breath, hoarse voice, numbness or tingling, appetite loss, nausea, vomiting, abdominal pain or diarrhea, loss or change of sense of taste or smell, difficulty sleeping.

People with the following symptoms should **seek immediate medical attention**: difficulty breathing, especially at rest, or unable to speak in sentences, confusion, drowsiness or loss of consciousness, persistent pain or pressure in the chest, skin being cold or clammy, or turning pale or a bluish colour, loss of speech or movement.

People who have pre-existing health problems are **at higher risk** when they have COVID-19; they should seek medical help early if worried about their condition. These include people taking immunosuppressive medication; those with chronic heart, lung, liver or rheumatological problems; those with HIV, diabetes, cancer, obesity or dementia.

People with severe disease and those needing hospital treatment should receive treatment as soon as possible. The **consequences** of severe COVID-19 include death, respiratory failure, sepsis, thromboembolism (blood clots), and multiorgan failure, including injury of the heart, liver or kidneys.

In rare situations, *children* can develop a severe **inflammatory** syndrome a few weeks after infection.

Some people who have had COVID-19, whether they have needed hospitalization or not, continue to experience symptoms. These **long-term effects** are called long COVID (or post COVID-19 condition). The most common symptoms associated with long COVID include fatigue, breathlessness and **cognitive dysfunction** (for example, confusion, forgetfulness, or a lack of mental focus or clarity). Long COVID can affect a person's ability to **perform daily activities** such as work or household chores.

(From Coronavirus disease (COVID-19). WHO)

1 B. Fill in the correct preposition, then make sentences using the completed phrases.

between, about, with, by, in, in

the disease caused the SARS-CoV-2, spreadspeople, persistent pain or pressure the chest, those chronic health problems, unable to speak sentences, worried their condition

1 C. Give explanations to the words in bold, make up sentences with them and write them down.

2 A. Read the statements and mark them as true or false.

- a) The term “coronavirus” is used as a synonym of COVID.
- b) Coronaviruses infect only human population of the planet.
- c) COVID was the 1st case in the history of science when coronaviruses were viewed as danger for the society.

2 B. Read the text and check your answers.

What do we know about the origin of coronaviruses?

Coronaviruses (CoV) are a large group of viruses that usually infect the upper respiratory tract in human beings. They usually produce the clinical condition of a cold, similar to **influenza**, and appear predominantly in the winter period. The name “coronavirus” refers to the **spikes** that appear on its surface (projections of proteins from its envelope), which give them the appearance of a stellar corona.

All coronaviruses have a **zoonotic** origin, that is, they infect different species of animals, giving rise to a respiratory and **intestinal** infection. There are four genera of CoV: alpha, beta, gamma, and delta. Alpha and beta infect mammals such as bats, cattle, domesticated animals, and humans. Gamma and delta variants most commonly infect birds and other mammals. The first time a CoV was identified as being responsible for a respiratory infection was in 1937; the virus affected **poultry** and had a **devastating** effect. In 1965, it was demonstrated that CoV were responsible for approximately 15% to 30% of common colds in humans. But it was not until the beginning of this century when two alerts were received of more severe clinical conditions produced by this family of viruses.

The first alert about more severe symptoms of this infection came in 2002 from the city of Guangdong, in southern China. This infection was named SARS-CoV,

with the acronym SARS standing for severe acute **respiratory** syndrome. It gave rise to very severe clinical conditions and had a mortality rate of around 10%. It infected about 8000 patients in 28 different countries. Ten years later, in 2012, another pandemic **outbreak** occurred in the Middle East, mainly in Saudi Arabia. It was called MERS-CoV and affected around 2500 people. The acronym MERS stands for Middle Eastern Respiratory Syndrome. Approximately 35% of the patients reported to the WHO died. In **the latter** case, Saudi Arabia verified that approximately 80% of cases of infection in human beings were the consequence of direct or indirect contact with camels or infected individuals, with the latter largely being **healthcare** workers. In the case of MERS, close contact with an infected individual was necessary, unlike what later occurred with SARS-CoV-2. These two coronaviruses (SARS-CoV and MERS-CoV) are of the beta **genus** and are genetically different from one another.

At the end of November 2019, the first case of **pneumonia** caused by a new CoV, also of the beta genus, was described near the Huanan market, in Wuhan, Hubei province (China). Researchers in China initially named it 2019-nCoV. On February 11, 2020, it was renamed SARS-CoV-2, and the disease was named COVID-19.

(From Zapatero Gaviria A, Barba Martin R. What do we know about the origin of COVID-19 three years later?)

2 C. Match the acronyms to their definitions.

1) COVID	a) severe acute respiratory syndrome
2) CoV	b) coronavirus
3) SARS	c) Middle Eastern Respiratory Syndrome
4) MERS	d) coronavirus disease

2 D. Give explanations to the words in bold, make up sentences with them and write them down.

CHAPTER 2. HISTORY

1 A. Read the text below and make a summary.

Three years later, what we know: How did COVID start?

Scientists **lean** towards a natural **spillover** from animals, but China's **opacity** means a lab **leak** can't be ruled out.

Three years after the World Health Organization declared COVID-19 a pandemic on March 11, 2020, questions **linger** about the origins of the virus that shut down borders, forced humanity into their homes, **battered** economies and killed millions of people.

The virus was first detected in Wuhan, China in late December 2019, and was quickly linked to the Huanan Seafood Wholesale Market. But as cases began to grow, health authorities in Wuhan scrubbed the market clean by January 1, 2020.

Removed from the market were the exotic wildlife, such as raccoon dogs and bamboo rats, that many scientists believe were the **intermediary** step between horseshoe bats – a common reservoir for coronaviruses and **endemic** to the area around Wuhan – and COVID-19's jump to humans. Critical information has been missing from the start of the investigation and China has refused to give the WHO and other researchers full access to the remaining data.

In the place of answers are competing narratives.

On one end of the spectrum, there is **evolutionary** biology, which supports a natural or “zoonotic” outbreak. On the other end are those who believe it may have accidentally leaked from the Wuhan Institute of Virology, which lies less than a kilometre from the market and is known to **handle** dangerous pathogens. For them, compelling evidence lies in the fact that similar accidents have happened before in Taiwan, China and Singapore. Near misses have also been reported at labs in the United States, including at the University of North Carolina at Chapel Hill.

Conspiracy theorists and a few **pundits** believe that COVID-19 may have been a **bioweapon**, released by either the US or China depending on their political leanings.

So what do we really know, and what does science suggest might be the origin story of the virus?

The short answer: Scientists and other experts appear to **skew** towards believing in a natural cause — that the virus indeed spread from animals to humans. But China's opacity has led to a **dearth** of evidence from the period, which, in turn, has kept scientists from making any **definitive** conclusions and has generated conspiracy theories.

(From Hale E. Three years later, what we know: How did COVID start?)

1 B. Fill in the correct preposition, then make sentences using the completed phrases.

from, of, down, towards, out, to

lean, spillover, be ruled, shutborders,
endemic, skew, dearthevidence

1 C. Give explanations to the words in bold, make up sentences with them and write them down.

CHAPTER 3. TREATMENT AND PREVENTION

1 A. Discuss the measures you followed during COVID-19 pandemic. Did you find all of them reasonable? Compare your experiences with the tips on treatment and prevention in the text below.

Treatment and prevention

Most people will recover without needing treatment in a hospital. For those who need it, doctors will suggest treatments for COVID-19 based on the **severity**

of the disease and the risk of it getting worse. They will consider the person's age and if they have other health problems.

People should get vaccinated as soon as it's their turn. They should follow local **guidance** on vaccination and ways to protect themselves against COVID-19. COVID-19 vaccines provide strong protection against serious illness, hospitalization and death.

To prevent the spread of COVID-19:

avoid crowds and keep a safe distance from others, even if they don't appear to be sick;

wear a **properly fitted** mask if you feel sick, have been close to people who are sick, if you are at high-risk, or in crowded or poorly ventilated areas;

clean your hands frequently with alcohol-based hand rub or soap and water;

cover your mouth and nose with a **bent elbow** or tissue when you cough or sneeze;

dispose of **used tissues** right away and clean your hands; and if you **develop symptoms** or test positive for COVID-19, self-isolate until you recover.

(From Coronavirus disease (COVID-19). WHO)

1 B. Fill in the correct preposition, then make sentences using the completed phrases.

of, for, of, from, on, of, for

severitythe disease, risk it getting worse, local guidance, safe distance, dispose used tissues, test positive COVID-19

1 C. Give explanations to the words in bold, make up sentences with them and write them down.

2 A. Have you ever heard of post COVID-19 condition? Did you personally experience it? If yes, which of the symptoms did you experience (fatigue, shortness of breath or difficulty breathing, memory, concentration or sleep problems, persistent cough, chest pain, trouble speaking, muscle aches, loss of smell or taste, depression or anxiety, fever)? What did you do to cure it?

2 B. Read the information below and compare it with with what you know about the condition.

Coronavirus disease (COVID-19): post COVID-19 condition

Most people who develop COVID-19 fully recover, but current evidence suggests approximately 10–20% of people experience a **variety of mid and long-term effects** after they recover from their initial illness. Although our **current understanding** of causes of post COVID-19 condition and why some people are more affected is limited.

What is post COVID-19 condition?

How soon after getting COVID-19 can someone be diagnosed with post COVID-19 condition?

Post COVID-19 condition is usually diagnosed by a **healthcare provider** at least 3 months after a patient falls ill with COVID-19. This 3-month period allows healthcare providers to rule out the usual recovery period from an **acute** illness. Sometimes this recovery period can be long, especially if someone is very sick.

Symptoms should last for at least 2 months from when someone first falls ill for it to be considered as post COVID-19 condition.

Symptoms of post COVID-19 condition can **persist** from the initial illness or begin after recovery. The symptoms and effects of post COVID-19 condition can only be explained when other conditions with similar symptoms as post COVID-19 condition have been ruled out through a medical **diagnosis**. Symptoms may also change over time.

What are common symptoms of post COVID-19 condition (long COVID)?

Symptoms differ between people, and between adults and children. Overall, the most common symptoms of post COVID-19 condition include fatigue, shortness of breath or difficulty breathing, memory, concentration or sleep problems, persistent cough, chest pain, trouble speaking, **muscle aches**, loss of smell or taste, depression or **anxiety**, fever.

People with post COVID-19 condition, also known as long COVID, may have difficulty functioning in everyday life. Their condition may affect their ability to perform daily activities such as work or household chores.

From Coronavirus disease (COVID-19). WHO)

2 C. Fill in the correct preposition, then make sentences using the completed phrases.

between, of, of, with, from, from, over, with

a variety mid and long-term effects, recover their initial illness, current understanding causes, be diagnosed, falls ill, persist the initial illness, change time, differ people

2 D. Give explanations to the words in bold, make up sentences with them and write them down.

TRANSLATION SECTION

- 1) What is the genre and style of the text?
- 2) Analyse the structural components (headings, subheadings, paragraphs) of the text paying attention to the thematic formation.
- 3) What do you know about the author and his/her intentions?
- 4) Characterize the cohesive content organization of the text.
- 5) Translate the text from English into Russian OR FROM Russian into English.

TEXT 1

A Closer Look at the Safety Data

COVID-19 vaccines meet the Food and Drug Administration's (FDA's) standards for safety and effectiveness. In rare cases, people have experienced serious health events after COVID-19 vaccination. Any health problem that happens after vaccination is considered an adverse event following immunization. An adverse event can be caused by the vaccine or be a coincidental event that is not related to the vaccine, such as an unrelated fever, that happened following vaccination.

To date, the systems in place to monitor the safety of these vaccines have found two serious types of adverse events following COVID-19 vaccination.

The two serious adverse events following COVID-19 vaccination currently used in the United States are anaphylaxis and myocarditis or pericarditis.

Anaphylaxis is a severe type of allergic reaction that can rarely happen after any vaccine. Anaphylaxis needs to be treated with epinephrine (for example, EpiPen) and may require hospitalization. Anaphylaxis can involve wheezing, difficulty breathing, or low blood pressure; and sometimes is accompanied by hives. Anaphylaxis after COVID-19 vaccination is rare.

Myocarditis is inflammation of the heart muscle, and pericarditis is inflammation of the outer lining of the heart. Myocarditis and pericarditis after COVID-19 vaccination are rare.

The evidence suggests that, although rare, these events are linked to certain types of COVID-19 vaccinations that were administered.

(From Coronavirus Disease 2019 (COVID-19). Vaccine Safety)

TEXT 2

Вирус, который сломал жизнь планеты: сможет ли COVID-19 стать сезонной ОРВИ

Три года назад ВОЗ объявила о пандемии коронавируса.

Врач-иммунолог Владимир Болибок: «Первые штаммы COVID-19 были очень вирулентными – вызывали тяжёлое поражение внутренних органов, с высокой летальностью. И в целом представляли существенную угрозу как для отдельно взятого человека, так и для человечества.

Затем появился крайне высококонтагиозный штамм "омикрон" – его заразность гораздо выше, чем у всех имевшихся ранее инфекций, но вирулентность и летальность низкие, да и переносится он относительно легко, многие совершенно бессимптомно им болеют. Сейчас угроза для жизни людей не так высока, как была в начале пандемии.

Но у коронавируса есть существенная проблема – это постковидный синдром. Даже легко протекающий «омикрон» вызывает в организме очень

серьёзные изменения, которые в дальнейшем могут плохо сказаться на состоянии всего здоровья. Основные осложнения – это ускоренное старение, нарушение работы центральной нервной системы, развитие аутоиммунных заболеваний, тромбозы, нарушение ментальных функций, в связи с которым даже стал общепринятым термин *mind fog* «туман в голове». В этом смысле COVID-19 по-прежнему представляет большую проблему.

Безусловно, за пандемию коронавируса медицина во всем мире и в России сделала определенный скачок. Во-первых, мы научились быстро создавать вакцины. Если в будущем вдруг возникнет какая-то тяжёлая инфекция, можно надеяться на то, что нужная вакцина будет сделана достаточно быстро. Это можно утверждать как ко всему человечеству в целом, так и к нашей стране в частности. Мы знаем, что НИЦЭМ им. Гамалеи первым в мире создал эффективную вакцину от COVID-19. Хотя пандемия «подсветила» и некоторые слабые стороны, например, у нас несколько недоработано законодательство и страдает система клинической апробации при разработке вакцин и лекарственных препаратов.

Мы очередной раз убедились в эффективности и правильности противоэпидемических мероприятий, прописанных в нашем санитарном законодательстве. Мы увидели, что лежащий в их основе подход работает. Три года, пока жёстко соблюдались противоэпидемические ограничения, все остальные инфекции практически сошли на нет. Не было вспышек гриппа, ОРВИ, кори, пневмонии - кроме ковидной. И это ещё раз подтвердило, что санитарно-эпидемиологические нормы работают. Пока вакцина не создана, эти эпидемические мероприятия очень хорошо защищают в целом население от распространения инфекции.

Наконец, мы говорим о мобилизации системы здравоохранения, когда принимать решения приходилось экстренно, на лету. Мы увидели, что у государства есть ресурс, который довольно быстро позволил перестроить систему здравоохранения под нужды эпидемии. Моментально были перепрофилированы отделения, больницы оснащены кислородом, что спасло очень много жизней.

(From Мосолкина Д., Дубровина Е. Вирус, который сломал жизнь планеты: сможет ли COVID-19 стать сезонной ОРВИ?)

UNIT 1 GLOSSARY

abdominal pain - a feeling of sickness with an inclination to vomit.

acute - condition that comes on suddenly and is typically severe.

appetite loss – a decrease in the desire to eat.

batter – to beat repeatedly, often used in the context of injure.

bent elbow - a position where the elbow is curved or flexed.

cancer - disease caused by an uncontrolled division of abnormal cells in a part of the body.

chills – a feeling of coldness occurring during a high fever.

current - presently occurring or existing.

dearth – a scarcity or lack of something.

definitive - conclusive and final.

dementia – a chronic disorder of the mental processes caused by brain disease or injury.

diabetes – a metabolic disease that causes high blood sugar.

diarrhea – a condition in which feces are discharged from the bowels frequently and in a liquid form.

dispose – to get rid of something.

dizziness – a sensation of spinning and a loss of balance, often associated with looking down from a great height.

endemic – a disease or condition regularly found among particular people or in a certain area.

evolutionary - relating to the gradual development of something.

exposure – the state of being exposed to contact with something.

fatigue or tiredness – a feeling of lack of energy and motivation that can be physical, mental, or both.

fever – an abnormally high body temperature, usually accompanied by shivering, headache, and in severe instances, delirium.

genus – a principal taxonomic category that ranks above species and below family, and is denoted by a capitalized Latin name.

guidance - advice or information aimed at resolving a problem or difficulty.

handle – to manage, deal with, or be responsible for.

headache - pain located in the head, as over the eyes, at the temples, or at the base of the skull.

hoarse voice – a voice quality that is characterized by a rough, throaty sound.

immediate medical attention - urgent care that is required for serious health conditions.

immunosuppression - reduction of the activation or efficacy of the immune system.

intermediary – a person who acts as a link between people in order to try to bring about an agreement.

intestinal infection – an infection in the intestines, which can cause symptoms like diarrhea and abdominal pain.

leak – an unintended hole, crack, or the like, through which liquid, gas, light, etc., enters or escapes.

lean towards – to incline physically or mentally in a particular direction.

linger – to remain or stay in a place longer than is usual or expected.

multiorgan failure – a severe condition where multiple organs in the body fail.

nausea – a feeling of sickness with an inclination to vomit.

numbness – a lack of physical sensation in a part of the body.

obesity – a condition characterized by excessive body fat.

opacity – the quality of being opaque to a degree; the degree to which something reduces the passage of light.

persist – to continue steadfastly or firmly in some state, purpose, course of action, or the like, especially in spite of opposition.

persistent cough – a cough that does not go away and is often a symptom of another disorder.

pneumonia – an inflammatory condition of the lung affecting primarily the small air sacs known as alveoli.

poultry - domestic fowl, such as chickens, turkeys, ducks, and geese.

pre-existing health problems - health issues that were present before a certain event, such as insurance coverage.

properly fitted - appropriately sized and adjusted for the intended user.

pundit – an expert in a particular subject or field who is frequently called on to give opinions about it to the public.

respiratory failure – a condition in which the respiratory system fails in one or both of its gas exchange functions.

runny or blocked nose – a condition where the nasal passage is congested or producing excess fluid.

sepsis – a life-threatening condition that arises when the body's response to infection causes injury to its own tissues and organs.

severity – the fact or condition of being severe.

shortness of breath - difficulty breathing or a feeling of not getting enough air.

skew - to turn or place at an angle.

sneezing – to emit air forcibly through the nose and mouth by spasmodic contraction of muscles of the throat and chest.

sore eyes – a condition where the eyes are painful, especially when being used.

sore throat - pain or irritation in the throat that can occur with or without swallowing.

spikes – a sudden and large increase or rise.

spillover – an instance of overflowing or spreading into another area.

thromboembolism (blood clots) - the formation in a blood vessel of a clot (thrombus) that breaks loose and is carried by the blood stream to plug another vessel.

tight chest – a feeling of pressure or discomfort in the chest area.

tingling – a sensation like that of small needles being driven into the skin.

vomiting - ejecting the contents of the stomach through the mouth.

zoonotic - pertaining to a zoonosis, which is a disease that can be transmitted from animals to humans.

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TESTS

THE EPIDEMIC OF COVID-19

Test 1 (Chapter 1)

Task 1. Complete the following phrases.

1. The most common symptoms of COVID include.....

.....

2. The name “coronavirus” refers to

.....

3. All coronaviruses have a zoonotic origin, that is, they.....

.....

4. The most common symptoms associated with long COVID include

.....

Task 2. Fill in the gaps with

the prepositions: *between, about, with, by, in, in, from, of, down, towards, towards, out, to*

the disease caused the SARS-CoV-2, spreadspeople, persistent pain or pressure the chest, those chronic health problems, unable to speak sentences, worried their condition, *lean*, *spillover*, *be ruled*, *shut**borders, endemic*, *skew*, *dearth**evidence*

Task 3. Match the definitions to the words.

1) cognitive dysfunction	a) a sudden breaking break out or occurrence, especially of something bad or unpleasant
2) perform daily activities	b) improvement of health via the prevention, diagnosis, treatment, amelioration or cure of disease, illness, injury
3) intestinal	c) anything related to how we breathe
4) poultry	d) a class, kind, or group marked by common characteristics
5) devastating	e) an infection that affects one or both lungs
6) respiratory	f) relating to or affecting the tubular part of the digestive tract that extends from the stomach to the anus
7) outbreak	g) decline in cognitive abilities such as learning, memory, perception, and problem-solving
8) genus	h) domesticated birds kept for eggs or meat
9) pneumonia	i) causing a lot of damage or destruction
10) healthcare	j) cope with tasks that individuals do on a regular basis to take care of themselves and maintain their independence

1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _ 8 _ 9 _ 10 _

COVID HISTORY

Test 2 (Chapter 2)

Task 1. Complete the following phrases.

1. Scientists **lean** towards a hypothesis that COVID epidemic was the result of.....

.....

2. On one end of the spectrum, there is evolutionary biology, which supports the idea of

.....

3. On the other end are those who believe COVID may have accidentally.....

.....

Task 2. Fill in the gaps with the prepositions: from, of, down, towards, out, to

lean, spillover, be ruled, shutborders, endemic, skew, dearthevidence

Task 3. Match the definitions to the words.

1) linger	A to beat repeatedly, often used in the context of injure.
2) batter	B relating to the gradual development of something
3) endemic	C to turn or place at an angle
4) evolutionary	D an expert in a particular subject or field who is frequently called on to give opinions about it to the public
5) handle	E a scarcity or lack of something
6) pundits	F a disease or condition regularly found among particular people or in a certain area
7) skew	G to manage, deal with, or be responsible for
8) dearth	H conclusive and final
9) definitive	I a living substance, such as bacteria, used to intentionally cause damage or death to people, animals, or crops
10) bioweapon	J to remain or stay in a place longer than is usual or expected

1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _ 8 _ 9 _ 10 _

COVID TREATMENT AND PREVENTION

Test 3 (Chapter 3)

Task 1. Complete the following phrases.

1. To prevent the spread of COVID-19:

.....
.....
.....

2. Post COVID-19 condition is usually diagnosed by a healthcare provider at least 3 months after a patient falls ill with COVID-19, because.....

.....
.....

3. The most common symptoms of post COVID-19 condition include

.....
.....
.....

Task 2.

Fill in the gaps with the prepositions: *between, of, of, with, from, from, over, with*
a variety mid and long-term effects, recover their initial illness, current
understanding The causes, be diagnosed, falls ill, persist
..... the initial illness, change time, differ people

Task 3.

Match the definitions to the words.

1) current	A condition that comes on suddenly and is typically severe
2) mid and long-term effects	B continue steadfastly or firmly in some state, purpose, course of action, or the like, especially in spite of opposition
3) healthcare provider	C process of identifying a disease, condition, or injury from its signs and symptoms
4) acute	D myalgia, are a common symptom that can be felt anywhere in the body where there is muscle tissue
5) persist	E feeling of fear, dread, and uneasiness
6) diagnosis	F a licensed person or organization that provides health care services
7) muscle aches	G presently occurring or existing
8) anxiety	H consequences or outcomes of an event, condition, or action that manifest over a moderate to extended period of time

1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _ 8 _ 9 _ 10 _

UNIT 2. THE PROBLEM OF HIV/AIDS EPIDEMIC

CHAPTER 1. WHAT IS HIV?

1 A. Read the statements below, agree or disagree with them.

- a) HIV originated in humans and later on was transferred to animals.
- b) There exist three or more types of HIV.
- c) In the 20th century, HIV was spread only in West Africa.

1 B. Read the text and confirm your answers. Were you right in all your suggestions?

HIV (Human Immunodeficiency Virus) is thought to have **originated** in **non-human primates** in sub-Saharan Africa and to have been **transferred to** humans during the 20th century.

Two species of HIV infect humans: HIV-1 and HIV-2. HIV-2 may have originated from the Sooty Mangabey (*Cercocebus atys*), an Old World monkey of Guinea-Bissau, Gabon, and Cameroon. HIV-1 is more **virulent**. It is **easily transmitted** and is the cause of the majority of HIV infections **globally**. HIV-2 is **less transmittable** and is largely **confined** to West Africa.

(From AIDS origin)

1 C. Fill in the chart below with suitable words and make up sentences with them.

verb		noun		adjective		adverb
transmit		transmissio		transmittabl		
	n		e			
originate						
transfer						
confine						

2 A. Read the text below and find the answers to the following questions:

- a) How can HIV be transmitted?
- b) How can you explain the risk of getting HIV during any sexual intercourse (vaginal, anal or oral)?
- c) When two people are having sex, they really are having sex with each of their previous partners. Why?
- d) Is blood transfusion dangerous for the person who is receiving or giving blood? Which other infections besides HIV are often transmitted through blood?
- e) Which of the following groups are more vulnerable in terms of getting HIV: males; females; old people; young people; heterosexual people; homosexual people (gays); the rich; the poor? Why?
- f) How does the text explain the fact that social interaction with HIV-positive people (even in sports activities) does not bring any danger of getting infected?

How is HIV transmitted?

* The virus is transmitted through ways, which have been clearly established.

* It is transmitted through contact with an infected person's blood; through contact with specific body **fluids**, which come from an infected person's sexual organs (**semen** and vaginal fluid); through the placenta to the **fetus**; through the mother's blood during the childbirth process; through **breastfeeding**.

* The greatest risk **in terms of** sexual behavior is anal intercourse, because it is easy to **tear the tissues** or **membranes** of the anus during the act of intercourse. **Macrophages thrive** in that part of the body; they seem to be attracted to HIV. The next risky behavior is **vaginal** intercourse, for the same reason - it is easy to tear the membranes of the **vagina**. The virus can **pass through** the tear. There also may be **sores** or cuts in the vagina; the sores may result from other sexually transmitted diseases the female may not know she has. These sores, cuts and tears provide an **entry** or **exit point** for the virus. The least, though nevertheless risky sexual behavior is oral sex. Once again, the virus can enter or exit a person's body through cuts or sores in the mouth.

* In terms of sexual contact, it is important to note that ***when two people have sex, they really are having sex with every person each has had sex with and all the people with whom those people had sex over the last ten to twelve years!*** Why? Because any one of those people could have passed the virus to any other and it might not have made the person ill yet, so he/she might not know he/she is infected. The virus

* can live in a person's body for perhaps ten or twelve years before that person has any signs of being ill. However, during that time, that person can transmit the virus to someone else.

* Any contact with an infected person's blood could **put another person at risk** of getting the virus. This might happen through sharing needles of any sort, and other objects, through contact with menstrual blood and contact with blood from an infected person who might be injured in some way. There is still a risk that a person might get HIV through a blood **transfusion** (receiving not giving blood). Blood carries Hepatitis B which is easier to get than HIV and may cause serious illness and, in some cases, death. This is another reason to avoid blood contact.

* Remember, a person gets the virus which causes AIDS (HIV) as a result of what he/she does not as a result of who he/she is. That means anyone who does any of the behaviors which might put him/her at risk of contact with the virus might get the virus. It does not matter if the person is male or female, old or young, heterosexual or homosexual (gay), rich or poor.

* A person cannot get HIV through mosquito or other insect **bites**; sitting on a toilet seat; drinking from a water fountain; touching an infected person's sweat or tears; sharing a sandwich, a drink, a towel with an infected person

(unless any of these things has fresh blood on it); if a person with HIV coughs or sneezes on you; in bodies of water. It is possible, but not probable, that a person could get HIV through kissing. There would have to be contact with blood. Sometimes people worry that they might get HIV from sports activities, if they have contact with someone's blood. At the time of this writing, there has not been a documented case of this **occurring**. The virus dies quickly outside the body and certainly dies when the blood dries. Blood can be cleaned up with a 10% bleach to water mixture (90% water, 10% bleach).

(From How is HIV transmitted?)

2 B. Fill in the correct preposition, then make sentences using the completed phrases.

from, at, of, with, through, through

transmitted ways, result, put another person risk,
contact somebody, as a resultsomething, get HIV kissing,
contact blood

2 C. Give explanations to the words in bold, make up sentences with them and write them down.

3 A. Read the extract from the article and say if the following statements reflect its ideas.

YES – if the statement reflects the ideas of the article

NO – if the statement contradicts the ideas of the article

NOT GIVEN – if the answer cannot be found in the article

- a) All the scientists believe that AIDS is caused by HIV.
- b) HIV is a basically harmless virus.
- c) The real cause of AIDS according to Dr Duisberg is not the virus.
- d) All the scientists support AZT treatment offered to HIV positive people.
- e) All the AIDS sufferers have HIV in their bodies.

Is AIDS caused by a virus known as HIV?

The early and continuing **consensus among** medical scientists is that **indeed** it is. However, a small but growing group of specialists believes that this consensus was **premature**, and that the HIV-AIDS **link** is not as **clear-cut** as first believed. These **dissenters** count among their numbers some of America's **leading scientists**. They are not **unanimous in** anything except the **belief** that the HIV-AIDS link has as yet to be **properly established**. In fact, their opinions on what causes AIDS **vary widely**. Some believe that HIV is **implicated** but does not act **on its own**; others such as Dr Peter Duisberg, the Professor of **Molecular** Biology at the University of California

— and the most well-known of the dissenters — believes that HIV is simply a **marker** of **high-risk behaviour**, that it is basically **harmless**, that it has been present in human populations for **eons**, and that AIDS is probably the result of the **frenzied sexual activity** and accompanying drug-taking which characterised the homosexual 'bathhouse scene' over the past two **decades**. He argues that anal intercourse, **rampant venereal disease** (and consequent taking of huge and continued doses of antibiotics), the use of **carcinogenic and mutagenic** drugs to improve sexual **performance**, and the **widespread abuse of** narcotics all will **lead to a suppression of** the immune system. Moreover, the powerful drug AZT (azido-thymidine), which provides to assist sufferers, is actually '**AIDS by prescription**'.

Popular press reports continue to **refer to** HIV as the AIDS-causing virus, despite the well-known fact that there are AIDS-sufferers with no HIV in their bodies.

(From 40 years of HIV discovery)

3 B. Fill in the correct preposition, then make sentences using the completed phrases.

in, on, of, among, among, on, in, for

consensus ... medical scientists, dissenters count ... their numbers, unanimous ... anything, opinions ..., act ... one's own, be present ... human populations, ... eons, widespread abuse ... narcotics

3 C. Fill in the words from the list, then make sentences using the completed phrases.

suppression, leading, high-risk, harmless, frenzied, AIDS, continued, properly, vary

America's ... scientists, established, opinions ... widely, a marker of behaviour, basically, ... sexual activity, taking of huge and ... doses of antibiotics, lead to a ... of the immune system, ' ... by prescription'.

3 D. Give explanations to the words in bold, make up sentences with them and write them down.

4 A. Read the facts from the history of HIV and find the answers to the questions.

- a) What do the first registered HIV cases have in common?
- b) When was the AIDS epidemic registered officially?
- c) Why was AIDS initially termed as GRID?
- d) What is the origin of the newly coined name of the disease?

First registered cases of HIV

In 1969, a 15-year-old African-American **male** known to medicine as Robert R. died at the St. Louis City Hospital from **aggressive Kaposi's sarcoma**. AIDS was **suspected** as early as 1984, and in 1987, **researchers** at Tulane University School of Medicine **confirmed** this, finding HIV-1 in his **preserved** blood and **tissues**. The doctors who worked on his case at the time suspected he was a prostitute, though the patient did not discuss his sexual history with them in detail.

In 1976, a Norwegian sailor named Arvid Noe, his wife, and his nine-year-old daughter died of AIDS. The sailor had first **presented symptoms** in 1969, eight years after he first spent time in ports along the West African coastline. A **gonorrhoea** infection during his first African voyage shows he was sexually active at this time. **Tissue samples** from the sailor and his wife were tested in 1988 and found to **contain** the HIV-1 virus.

The AIDS epidemic officially began on June 5, 1981, when the U.S. Centers for Disease Control and Prevention in its ***Morbidity and Mortality Weekly Report newsletter*** reported unusual **clusters** of Pneumocystis pneumonia (PCP) caused by a form of *Pneumocystis carinii* (now recognized as a **distinct species** *Pneumocystis jirovecii*) in five homosexual men in Los Angeles.

Over the next 18 months, more PCP clusters were discovered among **otherwise** healthy men in cities **throughout** the country, **along with** other **opportunistic diseases** (such as Kaposi's sarcoma and **persistent, generalized** lymphadenopathy), common in immunosuppressed patients.

In June 1982, a report of a group of cases amongst gay men in Southern California suggested that a sexually transmitted infectious agent might be the etiological agent, and the syndrome was **initially termed** "GRID", or **gay-related immune deficiency**.

Health authorities soon realized that nearly half of the people **identified with the syndrome** were not homosexual men. The same opportunistic infections were also reported among **hemophiliacs**, heterosexual **intravenous drug users**, and Haitian immigrants.

By August 1982, the disease was being **referred to** by its new **CDC-coined** name: Acquired Immune Deficiency Syndrome (AIDS).

(From AIDS origin)

4 B. Fill in the correct preposition, then make sentences using the completed phrases.

on, along, over, as, along with, in, with, by, in, throughout

as early ..., work ... the case, discuss something ... detail, ... the West African coastline, ... the next 18 months, in cities ... the country, ... other opportunistic diseases, common ... immunosuppressed patients, be identified ... the syndrome, refer to ... the new name

4 C. Give explanations to the words in bold, make up sentences with them and write them down.

5 A. Think of the possible answers to the following questions. Read the text to make sure your guesses are right.

- a) What are the symptoms of AIDS? Innumerate as many as you can.
- b) Is it possible to diagnose AIDS relying on symptoms only?
- c) What do you know about diseases coming with AIDS? How are they termed? How many of them can an AIDS sufferer have at the same time?
- d) Is having HIV the same as having AIDS?

What are the signs of AIDS?

* Being infected with HIV is not the same as having AIDS. A person can be infected with the virus for as long as ten or twelve years before he/she actually develops AIDS. However, from the time of infection, that person can pass the virus on to other people, even though he/she is not ill. A person may also have one or more of the infections/diseases which accompany **AIDS**.

* The symptoms a person might identify are:

swollen lymph glands

dry, **persistent cough**

fatigue

frequent **occurrences** of **diarrhea**

night sweats

loss of appetite

rapid loss of weight which is unplanned

persistent infections

purple **blotches** on the skin, which look a bit like strawberries or mushrooms and are raised above the surface of the skin (these are the signs of one of the opportunistic infections people with AIDS often get, called Kaposi's sarcoma)

severe numbness in the hands and feet

the loss of motor control

mental **deterioration**.

It is important to note that these symptoms also are **associated with** lots of other illnesses, even a cold and flu. People must **be aware** if the symptoms last a long time, or seem different than other colds they have had, or if they seem to be especially physically tired, without a good explanation.

It also should be explained that night sweats involve large amounts of **perspiration**, not related to the temperature in the room - large enough that one's pajamas and sheets are wet enough **to wring out**.

What are the opportunistic infections and diseases, which may come with AIDS?

* There are many. Some people may get a few, some may get close to all of

them.

- * The list includes, but is not limited to:

Kaposi's sarcoma – a form of skin cancer **that invades** the body's organs.

Pneumocystis carinii pneumonia – a form of pneumonia that causes cysts to develop in the lungs, which eventually kills many people with AIDS, because the cysts make it impossible for the lungs to function.

Cytomegalovirus – an infection that may cause blindness, may **impair** the central nervous system, can infect the liver and lungs.

Meningitis – an infection of the **outer covering** of the brain.

Encephalitis – an infection of the brain.

Oral **candidiasis** - an infection that gets in the mouth, **esophagus** and stomach (it may look like cauliflower and may make it difficult to swallow).

How can a person find out if he/she has been infected with HIV?

- * There are two tests which can be done on a person's blood to find out if the person has developed **antibodies** (what the body develops to **fight off** infections) specific to HIV. The tests only tell if a person has been infected with the virus; they do not tell if a person has AIDS. Why? Remember, that having the virus does not mean a person has AIDS. The tests are called ELISA (Enzyme Linked Immuno sorbent Assay) and the Western Blot. The second is more reliable and expensive than the first.

Is there a cure for AIDS?

- * At this time (2009), there is no cure for AIDS. There are treatments for many of the infections and diseases, which may come as a result of AIDS.

- * The most common are AZT (azido-thymidine) and ddl (dideoxyinosine) which **slow down** and **inhibit** the growth of AIDS. Though some scientists claim these medicines are “AIDS by prescription”.

- * Aerosolized Pentamidine (a drug which is inhaled) is used to fight the pneumonia.

- * There are many creams and **salves** used for rashes and infections.

- * There are medications to control pain, control diarrhea, lessen the effects of fatigue, stimulate the appetite – and on and on.

Is there a vaccine to prevent AIDS?

- * At this time, there is no **vaccine**, although there are laboratories experimenting with them.

- * Some work is being done (by Dr. Jonas Salk, who developed the polio vaccine) on a vaccine to prevent people with HIV from developing AIDS.

(From How is HIV transmitted?)

5 B. Give explanations to the words in bold, make up sentences with them and write them down.

Working with Media: Watching

A Watch the 1st part of the documentary called *The Origin of AIDS/HIV* (on the CD or at http://www.youtube.com/watch?v=n_w4MA-RtvA). Think about the following questions: 1) Who has created the message? 2) What creative techniques are used to attract your attention? 3) How might different people understand this message differently than me? 4) What values, lifestyles and points of view are represented in, or omitted from the message? 5) Why is the message being sent? Compare your answers to your group mates' points of view.

B Choose one of the rest 4 parts of the documentary. Watch it, make a plan of it, and be ready to dwell upon it in class.

CHAPTER 2. HIV/AIDS IS A GROWING CHALLENGE FOR EUROPE AND THE CIS



1 A. Read the text below and innumerate the dangers of HIV/AIDS epidemic.

HIV/AIDS threatens human development: it undermines economies, national security, family and community stability, intellectual and industrial growth, and public health. AIDS threatens the fabric of society and pushes governance and health care systems to limits they have not yet faced. Addressing the behavioural and socio-economic factors that **determine vulnerability** requires coordinated actions by many individuals and organisations, directed toward a common goal. AIDS cannot be **conquered** through the sort of 'command and control' approaches that have traditionally shaped **public policy**. HIV/AIDS is a growing **challenge** for the entire continent of Europe and the Commonwealth of Independent States. Over the past few years western CIS countries and the Baltic States have recorded some of the fastest growing **rates of** HIV infection in the world. The epidemic has reached critical levels in the Russia Federation and Ukraine, where infection rates have **topped** 1 percent of the adult population.

(From HIV/AIDS in Central and Eastern Europe and the CIS: Reversing the Epidemic. Facts and Policy Options. – United Nations Development Programme. – Bratislava, 2004)

1 B. Fill in the chart.

Noun	Verb
threat	threaten
stability	

	limit
	determine
approach	
	rate

<i>top</i>	
<i>governance</i>	
	<i>conquer</i>
<i>challenge</i>	

	<i>coordinate</i>
<i>development</i>	

1 C. Fill in the words from the list, then make sentences using the completed phrases.

stability, security, human, critical, health, economies, industrial, coordinated threaten development, undermine, national, family and community, intellectual and growth, public, require actions, reach levels

2 A. Read the text below and fill in the chart using the data from the text.

<i>Eastern Europe (CIS)</i>	<i>Ukraine</i>
<i>about 90% diagnosed in Russia and Ukraine; 66% in Russia</i>	<i>21% of newly diagnosed in CIS live in Ukraine</i>

One out of every hundred adults walking down the streets of a city in Eastern Europe or the Commonwealth of Independent States (CIS) countries carries the HIV virus that causes AIDS.

Nearly 90% of **newly reported HIV diagnoses** in this region were in two countries: the Russian Federation (66%) and Ukraine (21%). Estimated at 1.4% [0.8%–4.3%] in 2005, national adult HIV **prevalence** in Ukraine is higher than in any other country in Europe or Central Asia, and **annual** HIV diagnoses have more than **doubled** since 2001. The HIV epidemic in the Russian Federation also continues to grow but **at a slower pace** than in the late 1990s. Almost one third of **affected** individuals are in the age group of 15 to 24. **Elsewhere**, the annual numbers of newly reported HIV diagnoses are also rising in Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, the Republic of Moldova, Tajikistan and Uzbekistan (which now has the largest epidemic in Central Asia).

(From Eastern Europe and Central Asia/ 2007 AIDS Epidemic Update: Regional Summary)

2 B. Look at the map on the next page and describe the situation with AIDS in Europe, considering prevalence rates in different countries.

For example: In 2002 the prevalence rates of HIV were the highest in the Russian Federation (more than 1% of the population were people living with HIV/AIDS). In Ukraine at that time the prevalence rate was lower than in Russia, people living with HIV/AIDS made up 0,6–1 % of the Ukrainian population.

2 C. Give explanations to the words in bold, make up sentences with them and write them down.

3 A. Read the texts about the most vulnerable groups of population in terms of getting HIV/AIDS. Find the answers to the following questions.

a) Which socioeconomic events made the background for the rise in HIV in CIS countries?

b) Why was the contact with Afghanistan so important in this connection?

c) Name four reasons why sex workers form the risky group.

d) Why has the proportion of women infected with HIV considerably grown since 2000?

e) Which of the mentioned risky groups is stated to have the highest virus concentration? Why?

f) What shows that prison can create fertile breeding grounds for HIV independent of a country's general trend?

h) Why is an MSM prevalence rate seriously underreported? Do you agree that it should serve as a warning?

Drug users

The **rise in** HIV in the region is closely linked with increasing rates of injecting drug use that **developed** in the mid-1990s during the socioeconomic crisis that followed the **break-up** of the Soviet Union. At this time, **nearby** Afghanistan became the world's largest producer of opium, from which heroin is **derived**, and **drug trafficking** increased throughout the region. Initial **outbreaks** were detected in Ukraine, Russia, Belarus and Moldova.

Sex workers

Sex workers are at risk of HIV because of the **overlap** with injecting drug use as well as **unsafe sexual behaviours** including unprotected sex and **multiple** sexual partners. Nearly four-in-ten female sex workers in Russia's Samara region and St Petersburg used injecting drugs. In Ukraine, HIV prevalence among sex workers ranges from 4% in the capital, Kiev, to 24% in Donetsk and 27% in Mikolayev. Uzbekistan has a 10% infection rate among sex workers, similar to the prevalence in Azerbaijan, and likely explained by low condom use. The infection rate among sex workers in Tajikistan's capital, Dushanbe, and the second city, Khujand, leapt from 0.7% to 3.7% between 2005 and 2006. Other countries in the region have showed relatively low prevalence rates among sex workers.

HIV knowledge among Russian sex workers is low with just 36% rejecting popular **misconceptions** and correctly **identifying** how **sexual transmission** can be prevented. The same proportion answered correctly in Kazakhstan, with fewer than a quarter able to do so in Lithuania.

Sexual partners of risk groups

Partners of IDUs and sex workers are at risk of becoming infected through sexual transmission. Heterosexual contact, which **accounts for** nearly two-thirds of infections in women in Russia, accounts for an **ever-growing** proportion of new infections. In 2000, women **comprised** 20.6% of new infections; in 2003, this figure was 38.5%; and in 2007, the proportion had grown to 44% or 135,000. In Ukraine, the growth of heterosexual transmission as a proportion of total HIV incidences between 2001 and 2006 (28% to 35%) is largely **attributable** to unprotected sex with an injecting drug user. Regionally, half of HIV-positive women became infected by drug using partners, with a further 35% infected directly through needle sharing.

Fewer than 1 in 200 (0.46%) pregnant women in Russia in 2006 were HIV positive. The proportion of tested pregnant women being **diagnosed** HIV-positive, which saw a **very steep rise** between 2000 and 2001, has **levelled off** and all pregnant women are advised to take a test.

UNAIDS states that it is unlikely that the regional epidemic will spread independently of transmission among injecting drug users and sex workers. **Similarly**, another **study states** that even in countries that have **prevalence rates** of 1% or more, “the virus is still concentrated among injecting drug users and their sexual partners, and has *not* ‘**bridged**’ into the general population.”

Prisoners

As with sex workers HIV levels are prevalent in prison populations because of the **over representation** of injecting drug users. **Furthermore**, IDUs in prison are more likely to have HIV than those who inject among the general population, suggesting that risky injecting behaviour is more frequent inside prison. **Precise** information on **patterns** of HIV in prisons is **hard to obtain**, especially from **lower and middle-income** countries which **dominate** the region. Over 10% of all new HIV diagnoses in Russia during 2006-2007 were registered to prison populations. Overall prevalence in prison is estimated at around 5% with the **majority of inmates** already infected **before entering**. In Ukraine, 3.5-12% of prisoners are estimated as living with HIV. **Once again**, this is attributed to high levels of injecting drug use and men who have sex with men. Estonia, which has one of the highest imprisonment rates in the European Union, has a 14% prevalence rate among prisoners. The potential danger that prison conditions **pose to** drug users is indicated in an **HIV outbreak** in Lithuania’s Alytus prison in 2002 that infected 263 inmates, almost doubling the nation’s total epidemic. This **highlights** that although HIV rates in prison are often concentrations of the epidemic among free populations, prison can create **fertile breeding grounds** for HIV independent of a **country’s general trends**.

MSM

Men who have sex with men (MSM) are a relatively small proportion of total HIV cases in the region in comparison to Western European and North American nations, though **underreporting due to stigma** is likely. Unprotected male-to-male sex **accounted for** less than 1% of **newly registered cases** in Russia in 2006, where the **route** of transmission was known. Prevalence rates among MSM **range** from 9%

in the large city of Nizhni Novgorod to 4.6% in Yekaterinburg, 3.8% in St Petersburg and under 1% in Moscow. In a **survey** of nearly 3,700 MSM in Russia only 31% of those in a **monogamous relationship** always used condoms, with just 61% of MSM who only have **casual sexual partners** always using condoms. Just 2.7% had injected drugs – **slightly** more than the **upper estimate** of 2% in the general population - highlighting that the spread among MSM is largely, though not completely, separate from injecting drug use. An MSM prevalence rate of 11% was reported in Tashkent, Uzbekistan's capital, and 1% in Kyrgyzstan. In Ukraine, HIV prevalence among MSM ranges from 4.4% in Kiev to as high as 23% in Odessa. However, just 110 cases have been officially reported since 1987 indicating the extent to which the epidemic among MSM is largely **underground**, and possibly seriously **underestimated**. This should serve as a warning when looking at prevalence figures among MSM.

(From How is HIV transmitted?)

3 B. Fill in the correct preposition, then make sentences using the completed phrases.

through, of, off, of, among, among, for, in, on, of, to, due, in, from... to, to, with

rise ..., at risk ... HIV, because the overlap with, range ... 4% ... 24%, infection rate ... sex workers, infect ... sexual transmission, account ..., be attributable ..., level ..., prevalent ..., information ..., independent ..., in comparison ..., underreporting ... to stigma, prevalence rates ... MSM, overlap ...

3 C. Fill in the words from the list, and then make sentences using the completed phrases.

prevalence, outbreaks, steep, into, the region, rates, breeding, drug, popular

..... trafficking, misconceptions, low ... rates, initial ..., see a very rise, 'bridge' the general population, dominate..., imprisonment ..., fertilegrounds

Working with Media: Watching

A Watch the documentary called HIV=AIDS – Fact or Fraud (on the CD or at <http://www.youtube.com/watch?v=NZll-t1BIaQ&feature=related>). Think about the following questions: 1) Who has created the message? 2) What creative techniques are used to attract your attention? 3) How might different people understand this message differently than me? 4) What values, lifestyles and points of view are represented in, or omitted from the message? 5) Why is the message being sent? Compare your answers to your group mates' points of view.

B Write an essay choosing one of the topics: 1) If AIDS is not caused by HIV ... 2) Fraud in Science: Professional Ethics 3) If HIV does not cause AIDS, What is the Real Danger? Place your essay as a comment in the teacher's blog.

TRANSLATION SECTION

- 1) *What is the genre and style of the text?*
- 2) *Analyse the structural components (headings, subheadings, paragraphs) of the text paying attention to the thematic formation.*
- 3) *What do you know about the author and his/her intentions?*
- 4) *Characterize the cohesive content organization of the text.*
- 5) *Translate the text from English into Russian or from Russian into English.*

TEXT 1

A seventh case of HIV cure reported at AIDS 2024

During the 25th International AIDS Conference (AIDS 2024), being held in Munich, Germany, a new case of long HIV remission was reported and fuels optimism for an eventual HIV cure.

In 2007, Timothy Brown, the so-called first Berlin patient, was the first person to be considered cured of HIV. He underwent a stem cell transplant to treat leukaemia from a donor carrying a rare genetic mutation CCR5-delta 32, which is known to provide genetic resistance to HIV – making his reconstituted immune cells (CD4 cells) unable to be infected with HIV.

Although Timothy died due to recurrent leukaemia in 2020, the success of his treatment has led to four other people following similar treatments and being in sustained remission. One additional case reported in 2023 has been treated with a non-HIV resistant stem cell transplant (taken from a donor who does not carry this mutation) and is also in prolonged HIV remission.

The new case (1) presented at AIDS 2024 is a 60-year-old German man living with HIV who was diagnosed with acute myeloid leukaemia and underwent a blood stem cell transplant in 2015 from a donor with the CCR5-delta 32 mutation. However, the stem cell donor had a single instead of a double CCR5-delta 32 mutation, which is an important difference, as the cells were not fully immune to HIV. He stopped his antiretroviral treatment in late 2018 and since then, HIV has not been found in multiple samples, including biopsies of intestinal tissue and ultrasensitive viral techniques.

This case does not have immediate or direct clinical implications, as stem cell transplant procedures are complex, carry significant risk and have been reserved only for those patients requiring the transplant due to the presence of a malignancy. However, the results reinvigorate the call for continued research into techniques that can simulate these resistant cells in HIV patients, such as gene editing techniques.

This report confirms the existence of several routes to explore different interventions to stimulate specific stem cells to reach long-term HIV control and cure. If patients can use stem cell transplant donors with only a single mutation in the CCR5 receptor, this potential HIV cure strategy could be more widely used, as this genetic profile is more frequently found.

“The second Berlin patient confirms that we are moving in the right direction, but we have to support more research before long-term HIV remission or HIV cure

becomes a reality for people living with HIV,” said Dr Meg Doherty, Director of WHO Global HIV, Hepatitis and STI Programmes. “While we are very excited about this next case of potential HIV cure, we recognize that to achieve the goal of ending the AIDS epidemic by 2030, the global HIV response must continue to promote HIV testing, expand effective ART coverage, and focus on reaching the people most affected and at greatest risk.”

(From Gaebler C et al.)

TEXT 2

Минздрав обновил клинрекоmendации по лечению ВИЧ-инфекции у взрослых

Минздрав РФ представил обновленные клинические рекомендации по лечению ВИЧ-инфекции у взрослых, разработанные Национальной вирусологической ассоциацией и Московским онкологическим обществом. Прошлая версия документа датирована 2020 годом. В числе нововведений – расширение числа учреждений, имеющих право диагностировать ВИЧ-инфекцию, увеличение этапов диагностики, включение информации о лечении COVID-19 у пациентов с ВИЧ и другие.

Согласно Правилам поэтапного перехода медорганизаций к работе по клинрекоmendациям, применение утвержденных в документе изменений отложено до 1 января 2025 года.

В новых клинрекоmendациях обозначено, что ВИЧ-инфекция у пациента может быть установлена только после заключения, сделанного врачом Центра по профилактике и борьбе со СПИД или другой уполномоченной специализированной медорганизации в результате полного комплекса диагностики, включающего эпидемиологические и клинические данные, а также результаты лабораторных исследований. В предыдущей версии документа указывалось, что диагностировать ВИЧ-инфекцию могут только специалисты из центров СПИД.

Согласно клинрекоmendациям, диагностика ВИЧ-инфекции происходит в три этапа (прошлая вариация документа предполагала два), включающих в себя установление факта инфицирования ВИЧ путем лабораторных исследований, постановку предварительного диагноза и составление плана диспансерного наблюдения, установление развернутого клинического диагноза – определение стадии и маркеров прогрессирования ВИЧ-инфекции.

Кроме того, при постановке пациента на диспансерный учет рекомендуется провести комплекс диагностических исследований на такие заболевания, как сифилис, вирусные гепатиты С и В, токсоплазмоз, туберкулез. Женщинам также необходимо пройти обследование с целью выявления патологии шейки матки.

В регламенте зафиксированы и особенности течения COVID-19 на фоне иммунодефицита. Так, люди с ВИЧ могут столкнуться с более тяжелыми проявлениями коронавирусной инфекции из-за сочетанной патологии. Кроме того, специфическим проявлением COVID-19 при ВИЧ выступает поражение коронавирусом макрофагов (клетки, поглощающие чужеродные или вредные

для организма частицы) и лимфоцитов (основные клетки иммунной системы, помогающие вырабатывать антитела). Бессимптомное течение COVID-19, согласно документу, отмечается не менее чем у 20% заболевших в общей популяции людей, однако среди ВИЧ-инфицированных пациентов число таких случаев составляет 2,6%. Анализ клинических симптомов также продемонстрировал, что среди людей с ВИЧ, заразившихся коронавирусной инфекцией, наиболее часто встречаются такие проявления заболевания, как усталость и слабость (82,1%), потеря обоняния и вкуса (66,6%), повышенная температура (61,5%).

Помимо этого, в новых клинических рекомендациях прописаны особенности вакцинации ВИЧ-инфицированных пациентов от COVID-19, кори, краснухи, ветряной оспы, гриппа и других заболеваний, а также обозначены способы развития, течения и лечения анемии, являющейся наиболее частым гематологическим осложнением у ВИЧ-инфицированных людей (до 95% от всех пациентов).

Предыдущую версию клинических рекомендаций по лечению ВИЧ-инфекции у взрослых Минздрав принял в 2020 году. Она должна была действовать до 2022 года. В октябре 2021 года Правительство РФ поручило профессиональным НКО и Минздраву разработать и представить до 2024 года усовершенствованные клинические рекомендации по методам профилактики, диагностики и лечения ВИЧ-инфекции. Задача была включена в план мероприятий по реализации Государственной стратегии противодействия распространению ВИЧ-инфекции в России до 2030 года.

В феврале 2022 года Минздрав утвердил клинические рекомендации по терапии ВИЧ-инфекции у беременных. Ранее их не выделяли в отдельную группу: беременные пациентки с ВИЧ были включены в клинические рекомендации по терапии ВИЧ-инфекций у взрослых от 2019 года. Однако после обновления документа беременных из него исключили. Среди прочего в новой версии клинических рекомендаций расширили критерии назначения схемы антиретровирусной терапии беременным, а также пересмотрели применение ряда препаратов.

(From Минздрав обновил клинические рекомендации по лечению ВИЧ-инфекции у взрослых. Vademecum)

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UNIT 2 GLOSSARY

Chapter 1

abuse of n – 1 mistreat: treat badly; "This boss abuses his workers"; "She is always stepping on others to get ahead". **2** pervert: change the inherent purpose or function of something; "Don't abuse the system"; "The director of the factory misused the funds intended for the health care of his workers". **3** use foul or abusive language towards; "The actress abused the policeman who gave her a parking ticket"; "The angry mother shouted at the teacher". **4** a rude expression intended to offend or hurt; "when a student made a stupid mistake he spared them no abuse"; "they yelled insults at the visiting team". **5** use wrongly or improperly or excessively; "Her husband often abuses alcohol"; "while she was pregnant, she abused drugs".

along with prep – 1 in addition (usually followed by `with'); "we sent them food and some clothing went along in the package"; "along with the package came a bill"; "consider the advantages along with the disadvantages"

antibodies n – any of a large variety of proteins normally present in the body or produced in response to an antigen which it neutralizes, thus producing an immune response.

associated with p of associate v – 1 tie in, relate, link, colligate, link up, connect (make a logical or causal connection) "*I cannot connect these two pieces of evidence in my mind*"; "*colligate these facts*"; "*I cannot relate these events at all*". **2** consort, associate, affiliate, assort (keep company with; hang out with) "*He associates with strange people*"; "*She affiliates with her colleagues*".

be aware adj – 1 cognizant, cognisant ((sometimes followed by `of') having or showing knowledge or understanding or realization or perception) "*was aware of his opponent's hostility*"; "*became aware of her surroundings*"; "*aware that he had exceeded the speed limit*". **2** mindful, bearing in mind; attentive to "*ever mindful of her health*"; "*mindful of his responsibilities*"; "*mindful of these criticisms, I shall attempt to justify my action*".

belief n – 1 belief is the psychological state in which an individual holds a proposition or premise to be true. **2** mental acceptance of a claim as truth; Something believed; The quality or state of believing; Religious faith; One's religious or moral ...

blotch n – splodge, splotch (an irregularly shaped spot).

bramfatura n – almost every heavenly body possesses a number of variomaterial planes that together form a closely integrated system.

bud from v – 1 develop buds; "The hibiscus is budding!" **2** a partially opened flower. **3** start to grow or develop; "a budding friendship". **4** a swelling on a plant stem consisting of overlapping immature leaves or petals.

carcinogenic adj – causing or tending to cause cancer; "the carcinogenic action of certain chemicals".

clear-cut adj – 1 clearly or sharply defined to the mind; "clear-cut evidence of tampering"; "Claudius was the first to invade Britain with distinct... **2** having had all the trees removed at one time; "clear-cut hillsides are subject to erosion". **3** clear and distinct to the senses; easily perceptible; "as clear as a whistle"; "clear footprints in the snow"; "the letter brought back a clear image of his grandfather"; "a spire clean-cut against the sky"; "a clear-cut pattern".

cluster n – a bunch: a grouping of a number of similar things; "a bunch of trees"; "a cluster of admirers".

cluster v – **1** come together as in a cluster or flock; "The poets constellate in this town every summer". **2** bunch: gather or cause to gather into a cluster; "She bunched her fingers into a fist".

coined pp – a neologism, a word, term, or phrase that has been recently created (or "coined"), often to apply to new concepts.

confine v – **1** restrict: place limits on (extent or access); "restrict the use of this parking lot"; "limit the time you can spend with your friends". **2** limit, restrict "I limit you to two visits to the pub a day". **3** prevent from leaving or from being removed. **4** deprive of freedom; take into confinement. **4** restrain: to close within bounds, limit or hold back from movement; "This holds the local until the express passengers change trains"; "About a dozen animals were held inside the stockade"; "The illegal immigrants were held at a detention center"; "The terrorists held the journalists for ransom".

confirm v – **1** establish or strengthen as with new evidence or facts; "his story confirmed my doubts"; "The evidence supports the defendant". **2** strengthen or make more firm; "The witnesses confirmed the victim's account". **3** support a person for a position; "The Senate confirmed the President's candidate for Secretary of Defense". **4** administer the rite of confirmation to; "the children were confirmed in their mother's faith"

consensus (among) n – agreement in the judgment or opinion reached by a group as a whole; "the lack of consensus reflected differences in theoretical positions".

contain v – **1** incorporate: include or contain; have as a component; "A totally new idea is comprised in this paper"; "The record contains many old songs from ...**2** hold: contain or hold; have within; "The jar carries wine"; "The canteen holds fresh water"; "This can contains water". **3** control: lessen the intensity of; temper; hold in restraint; hold or keep within limits; "moderate your alcohol intake"; "hold your tongue"; "hold your temper"; "control your anger". **4** be divisible by; "24 contains 6". **5** be capable of holding or containing; "This box won't take all the items"; "The flask holds one gallon". **6** check: hold back, as of a danger or an enemy; check the expansion or influence of; "Arrest the downward trend"; "Check the growth of communism in South East Asia"; "Contain the rebel movement"; "Turn back the tide of communism".

cough n – coughing (a sudden noisy expulsion of air from the lungs that clears the air passages; a common symptom of upper respiratory infection or bronchitis or pneumonia or tuberculosis).

covering n – **1** natural covering, cover (a natural object that covers or envelops) "*under a covering of dust*"; "*the fox was flushed from its cover*". **2** an artifact that covers something else (usually to protect or shelter or conceal it). **3** cover, screening, masking (the act of concealing the existence of something by obstructing the view of it) "*the cover concealed their guns from enemy aircraft*". **4** the act of protecting something by covering it. **5** application, coating (the work of applying something) "*the doctor prescribed a topical application of iodine*"; "*a complete bleach requires several applications*"; "*the surface was ready for a coating of paint*".

cultured adj – **1** of a food product, like cheese, to which bacterial cultures have been added to develop flavor. **2** of cultures - If an infection is suspected, it is helpful to know the principal site and the type of bacterium, fungus or other microorganism involved so that ...**3** of cultures - Lab tests to check blood or other body fluids for bacteria and to determine which antibiotics are best for fighting the infection.

Cytomegalovirus n – CMV (any of a group of herpes viruses that enlarge epithelial cells and can cause birth defects; can affect humans with impaired immunological systems).

decade n – **1** a period of 10 years. **2** ten: the cardinal number that is the sum of nine and one; the base of the decimal system.

deficiency n – **1** lack: the state of needing something that is absent or unavailable; "there is a serious lack of insight into the problem"; "water is the critical ...**2** insufficiency: lack of an adequate quantity or number; "the inadequacy of unemployment benefits".

deterioration n – **1** impairment (a symptom of reduced quality or strength). **2** decline in quality, declension, worsening (process of changing to an inferior state).

diarrhea n – diarrhoea, looseness of the bowels, looseness (frequent and watery bowel movements; can be a symptom of infection or food poisoning or colitis or a gastrointestinal tumor).

dissenter n – the term dissenter (from the Latin dissentire, "to disagree"), labels one who dissents or disagrees in matters of opinion, belief, etc.

distinct adj – very clear; different from one another; noticeably different.

drug user n – a person who takes drugs.

easily adv – **1** with ease ('easy' is sometimes used informally for 'easily'); "she was easily excited"; "was easily confused"; "he won easily"; "this china breaks ...**2** without question; "easily the best book she's written". **3** well: indicating high probability; in all likelihood; "I might well do it"; "a mistake that could easily have ended in disaster"; "you may well need your umbrella"; "he could equally well be trying to deceive us".

encephalitis n – cephalitis, phrenitis (inflammation of the brain usually caused by a virus; symptoms include headache and neck pain and drowsiness and nausea and fever ('phrenitis' is no longer in scientific use).

enrof n – the name of our physical planet, a concept synonymous with what astronomy calls the universe. It is characterized by three dimensions of space and one time stream.

eons n pl – here the term means universal periods of time characterized by altered conditions in the Enrof of one bramfatura.

esophagus n – oesophagus, gorge, gullet (the passage between the pharynx and the stomach).

establish v – **1** set up or found; "She set up a literacy program". **2** set up or lay the groundwork for; "establish a new department". **3** install: place; "Her manager had set her up at the Ritz". **4** build: build or establish something abstract; "build a reputation". **5** use as a basis for; found on; "base a claim on some observation".

fatigue n – weariness, tiredness (temporary loss of strength and energy resulting from hard physical or mental work) "he was hospitalized for extreme fatigue"; "growing

fatigue was apparent from the decline in the execution of their athletic skills"; "weariness overcame her after twelve hours and she fell asleep".

fight off v – repel, repulse, rebuff, drive back (force or drive back) *"repel the attacker"; "fight off the onslaught"; "rebuff the attack".*

frenzied adj – 1 in a state of hurry, panic or wild activity.

gay-related adj – connected with gays.

generalized adj – systemic and spread throughout the body; *"this kind of infection generalizes throughout the immune system".*

globally adv – throughout the world; *"this is globally significant".*

gonorrhoea n – a common venereal disease caused by the bacterium *Neisseria gonorrhoeae*; symptoms are painful urination and pain around the urethra.

haemophilia n – congenital tendency to uncontrolled bleeding; usually affects males and is transmitted from mother to son.

harmless adj – not causing or capable of causing harm; *"harmless bacteria"; "rendered the bomb harmless".*

hemophiliac n – someone who has haemophilia and is subject to uncontrollable bleeding

high-risk adj – having a great risk.

identified (with) v – 1 recognize as being; establish the identity of someone or something; *"She identified the man on the 'wanted' poster".* 2 name: give the name or identifying characteristics of; refer to by name or some other identifying characteristic property; *"Many senators were named in connection with the scandal"; "The almanac identifies the auspicious months".* 3 consider (oneself) as similar to somebody else; *"He identified with the refugees".* 4 conceive of as united or associated; *"Sex activity is closely identified with the hypothalamus".*

impair v – 1 make worse or less effective *"His vision was impaired".* 2 mar, spoil, deflower, vitiate (make imperfect) *"nothing marred her beauty".*

implicate v – 1 bring into intimate and incriminating connection; *"He is implicated in the scheme to defraud the government".* 2 entail: impose, involve, or imply as a necessary accompaniment or result; *"What does this move entail?"*

indeed adv – 1 truly; in fact; actually; indicates agreement

inhibit v – 1 suppress, stamp down, subdue, conquer, curb (to put down by force or authority) *"suppress a nascent uprising"; "stamp down on littering"; "conquer one's desires".* 2 limit the range or extent of; *"Contact between the young was inhibited by strict social customs".* 3 limit, block, or decrease the action or function of *"inhibit the action of the enzyme"; "inhibit the rate of a chemical reaction".* 4 bottle up, suppress (control and refrain from showing; of emotions, desires, impulses, or behavior).

initially adv – at the beginning; *"at first he didn't notice anything strange".*

intravenous adj – method of giving medicine through a needle directly into your vein. This allows the medicine to get into your system and begin working quicker than swallowing pills or liquids.

Kaposi's sarcoma n – a sarcoma that starts with purplish spots on the feet and legs and spreads from the skin to lymph nodes and internal organs; a common manifestation of AIDS *"until 1980 Kaposi's sarcoma occurred almost exclusively with Jewish or Italian or black men."*

lead (to) v – tend to or result in; "This remark lead to further arguments among the guests".

leading adj – greatest in importance or degree or significance or achievement; "our greatest statesmen"; "the country's leading poet"; "a pre-eminent archaeologist".

link n – the means of connection between things linked in series.

loss of n – **1** something that is lost "*the car was a total loss*"; "*loss of livestock left the rancher bankrupt*". **2** gradual decline in amount or activity "*weight loss*"; "*a serious loss of business*". **3** the act of losing someone or something "*everyone expected him to win so his loss was a shock*". **4** the experience of losing a loved one "*he sympathized on the loss of their grandfather*". **5** passing, departure, exit, expiration, going, release (euphemistic expressions for death) "*thousands mourned his passing*".

lymph glands n – lymph node, lymph gland, node (the source of lymph and lymphocytes).

lymphocyte n – **1** cell, originating from stem cells, that plays a role in immunity. **2** a white blood cell present in the blood, lymph and lymphoid tissue.

male n – **1** an animal that produces gametes (spermatozoa) that can fertilize female gametes (ova). **2** a person who belongs to the sex that cannot have babies. **3** characteristic of a man; "a deep male voice"; "manly sports". **4** for or pertaining to or composed of men or boys; "the male lead"; "the male population".

marker n – **1** some conspicuous object used to distinguish or mark something; "the buoys were markers for the channel". **2** a distinguishing symbol; "the owner's mark was on all the sheep". **3** a writing implement for making a mark.

meningitis n – infectious disease characterized by inflammation of the meninges (the tissues that surround the brain or spinal cord) usually caused by a bacterial infection; symptoms include headache and stiff neck and fever and nausea.

micrograph n – an image such as a photograph that presents the microscopic at a macroscopic scale.

molecular adj – **1** relating to or produced by or consisting of molecules; "molecular structure"; "molecular oxygen"; "molecular weight is the sum of all the atoms in ...**2** relating to simple or elementary organization; "proceed by more and more detailed analysis to the molecular facts of perception".

morbidity n – **1** the relative incidence of a particular disease. **2** an abnormally gloomy or unhealthy state of mind; "his fear of being alone verges on morbidity". **3** unwholesomeness: the quality of being unhealthful and generally bad for you. **4** in medicine, epidemiology and actuarial science, the term morbidity can refer to * the state of poor health (from Latin morbidus: sick, unhealthy), * the degree or severity of a health condition, * the prevalence of a health condition: the total number of cases in a particular population at a ...

mortality n – **1** the quality or state of being mortal. **2** deathrate: the ratio of deaths in an area to the population of that area; expressed per 1000 per year.

motor control n – control of muscles.

mutagenic adj – capable of inducing mutation (used mainly of extracellular factors such as X-rays or chemical pollution).

newsletter n – report or open letter giving informal or confidential news of interest to a special group.

numbness n – 1 partial or total lack of sensation in a part of the body; a symptom of nerve damage or dysfunction. 2 apathy, indifference, spiritlessness (the trait of lacking enthusiasm for or interest in things generally).

occurrence n – 1 happening, occurrence, occurrent, natural event (an event that happens). 2 occurrence (an instance of something occurring) "*a disease of frequent occurrence*"; "*the occurrence (or presence) of life on other planets*".

on one's own pron – 1 to indicate that something belongs to a particular person or thing. 2 **adj** to indicate that something is used by, or is characteristic of, only one person, thing, or group "This young lady has a sense of style that is very much her own".

opportunistic disease n – an infection caused by pathogens that usually do not cause disease in a healthy immune system.

otherwise adv – 1 in other respects or ways; "he is otherwise normal"; "the funds are not otherwise available"; "an otherwise hopeless situation". 2 differently: in another and different manner; "very soon you will know differently"; "she thought otherwise"; "there is no way out other than the fire escape". 3 other than as supposed or expected; "the outcome was otherwise".

outer adj – 1 being on the outside or further from a center "*spent hours adorning the outer man*"; "*the outer suburbs*". 2 located outside "*outer reality*". 3 being on or toward the outside of the body) "*the outer ear*".

performance n – 1 a dramatic or musical entertainment; "they listened to ten different performances"; "the play ran for 100 performances"; "the frequent ... 2 the act of presenting a play or a piece of music or other entertainment; "we congratulated him on his performance at the rehearsal"; "an inspired performance of Mozart's C minor concerto". 3 the act of performing; of doing something successfully; using knowledge as distinguished from merely possessing it; "they criticised his performance as mayor"; "experience generally improves performance"

persistent adj – 1 never-ceasing; "the relentless beat of the drums". 2 haunting: continually recurring to the mind; "haunting memories"; "the cathedral organ and the distant voices have a haunting beauty"- Claudia Cassidy. 3 dogged: stubbornly unyielding; "dogged persistence". 4 obstinately refusing to give up or let go; Insistently repetitive; Indefinitely continuous; Lasting past maturity without falling off; About ...

persistent adj – 1 relentless, unrelenting (never-ceasing) "*the relentless beat of the drums*". 2 haunting, **persistent** (continually recurring to the mind) "*haunting memories*"; "*the cathedral organ and the distant voices have a haunting beauty*"- Claudia Cassidy. 3 dogged, dour, pertinacious, tenacious, unyielding (stubbornly unyielding) "*dogged persistence*"; "*dour determination*"; "*the most vocal and pertinacious of all the critics*"; "*a mind not gifted to discover truth but tenacious to hold it*"- T.S.Eliot; "*men tenacious of opinion*".

perspiration n – 1 sweat, sudor (salty fluid secreted by sweat glands) "*sweat poured off his brow*". 2 sweating, diaphoresis, sudation, hidrosis (the process of the sweat glands of the skin secreting a salty fluid) "*perspiration is a homeostatic process*".

pneumocystis carinii pneumonia – interstitial plasma cell pneumonia (pneumonia occurring in infants or in persons with impaired immune systems (as AIDS victims))

premature adj – **1** born after a gestation period of less than the normal time; "a premature infant". **2** previous(p): too soon or too hasty; "our condemnation of him was a bit previous"; "a premature judgment". **3** uncommonly early or before the expected time; "illness led to his premature death"; "alcohol brought him to an untimely end".

prescription n – **1** directions prescribed beforehand; the action of prescribing authoritative rules or directions; "I tried to follow her prescription for success". **2** prescription drug: a drug that is available only with written instructions from a doctor or dentist to a pharmacist; "he told the doctor that he had been taking his prescription regularly". **3** written instructions for an optician on the lenses for a given person. **4** written instructions from a physician or dentist to a druggist concerning the form and dosage of a drug to be issued to a given patient.

presented pp – having a specified presentation, or a presentation with specified properties.

preserve v – **1** continue: keep or maintain in unaltered condition; cause to remain or last; "preserve the peace in the family"; "continue the family tradition ...**2** conserve: keep in safety and protect from harm, decay, loss, or destruction; "We preserve these archeological findings"; "The old lady could not keep up the building"; "children must be taught to conserve our national heritage"; "The museum curator conserved the ancient manuscripts". **3** save: to keep up and reserve for personal or special use; "She saved the old family photographs in a drawer". **4** a reservation where animals are protected.

properly adv – in the right manner; "please do your job properly!"; "can't you carry me decent?"

rampant adj – **1** unrestrained and violent; "rampant aggression". **2** rearing on left hind leg with forelegs elevated and head usually in profile; "a lion rampant". **3** (of a plant) having a lush and unchecked growth; "a rampant growth of weeds".

refer v – **1** mention: make reference to; "His name was mentioned in connection with the invention". **2** be relevant to; "There were lots of questions referring to her talk"; "My remark pertained to your earlier comments". **3** think of, regard, or classify under a subsuming principle or with a general group or in relation to another; "This plant can be referred to a known species". **4** send or direct for treatment, information, or a decision; "refer a patient to a specialist"; "refer a bill to a committee". **5** consult: seek information from; "You should consult the dictionary"; "refer to your notes".

refer to v – think of, regard, or classify under a subsuming principle or with a general group or in relation to another; "This plant can be referred to a known species".

researcher n – a research worker: a scientist who devotes himself to doing research.

salve n – **1** ointment, unction, unguent, balm (semisolid preparation (usually containing a medicine) applied externally as a remedy or for soothing an irritation). **2** anything that remedies or heals or soothes "*he needed a salve for his conscience*".

severe adj – **1** stern, strict: *severe looks; be severe with one's children*. **2** strong, extreme (of the weather, attacks of disease. **3** making great demands on skill, ability, patience or other qualities; *The pace was too severe to be kept up long*.

sexual activity – activities associated with sexual intercourse; "they had sex in the back seat".

slow down v – 1 decelerate, slow, slow up, retard (lose velocity; move more slowly) *"The car decelerated"*. 2 slow, slow up (cause to proceed more slowly) *"The illness slowed him down"*. 3 decelerate, reduce the speed of *"He slowed down the car"*. 4 relax, loosen up, unbend, unwind, decompress (become less tense, rest, or take one's ease) *"He relaxed in the hot tub"*; *"Let's all relax after a hard day's work"*.

species n pl – 1 (biology) taxonomic group whose members can interbreed. 2 a specific kind of something; *"a species of molecule"*; *"a species of villainy"*.

suppression (of) n – 1 the failure to develop some part or organ. 2 the act of withholding or withdrawing some book or writing from publication or circulation; *"a suppression of the newspaper"* forceful prevention; putting down by power or authority; *"the suppression of heresy"*; *"the quelling of the rebellion"*; *"the stifling of all dissent"* inhibition: (psychology) the conscious exclusion of unacceptable thoughts or desires.

suspect v – 1 imagine to be the case or true or probable; *"I suspect he is a fugitive"*; *"I surmised that the butler did it"*. 2 distrust: regard as untrustworthy; regard with suspicion; have no faith or confidence in

swollen adj of swell v – 1 increase in size, magnitude, number, or intensity *"The music swelled to a crescendo"*. 2 swell, puff up, become filled with pride, arrogance, or anger; *"The mother was swelling with importance when she spoke of her son"*. 3 swell, swell up, intumescence, tumefy, tumesce, expand abnormally; *"The bellies of the starving children are swelling"*. 4 well up, swell, come up (as of feelings and thoughts, or other ephemeral things); *"Strong emotions welled up"*; *"Smoke swelled from it"*. 5 well, swell (come up, as of a liquid) *"Tears well in her eyes"*; *"the currents well up"*.

symptom n – any sensation or change in bodily function that is experienced by a patient and is associated with a particular disease.

term v – name, apply a term to; *"He has no right to term himself a professor"*.

throughout adv – 1 from first to last; *"the play was excellent end-to-end"*. 2 in every part; everywhere; during an entire period of time; in every part of; all through.

tissue n – 1 part of an organism consisting of an aggregate of cells having a similar structure and function. 2 tissue - a soft thin (usually translucent) paper.

tissue sample – a part of an organism used for medical or research testing, for example, a small piece of a tumor, or diseased artery, or a group of cells taken ...

transmittable adj – catching: (of disease) capable of being transmitted by infection.

transmitted adj – 1 conveyed, transferred to another; *"communicate a disease"* impart: transmit or serve as the medium for transmission; *"Sound carries well over water"*; *"The airwaves carry the sound"*; *"Many metals conduct heat"*. 2 aired, broadcast over the airwaves, as in radio or television; *"We cannot air this X-rated song"*. 3 sent from one person or place to another; *"transmit a message"*.

unanimous (in) adj – 1 consentaneous: in complete agreement; *"a unanimous decision"*. 2 solid: acting together as a single undiversified whole; *"a solid voting bloc"*.

vaccine n – vaccinum (immunogen consisting of a suspension of weakened or dead pathogenic cells injected in order to stimulate the production of antibodies).

vary v – 1 change: become different in some particular way, without permanently losing one's or its former characteristics or essence; "her mood changes in ...2 deviate: be at variance with; be out of line with. 3 be subject to change in accordance with a variable; "Prices vary"; "His moods vary depending on the weather". 4 make something more diverse and varied; "Vary the menu".

venereal disease – a sexually transmitted disease (STD) or venereal disease (VD).

virulent adj – of a disease or disease-causing agent, highly infectious, malignant, or deadly.

widely adv – 1 to a great degree; "her work is widely known". 2 wide: to or over a great extent or range; far; "wandered wide through many lands"; "he travelled widely". 3 so as to leave much space or distance between; "widely separated".

widespread adj – 1 widely circulated or diffused; "a widespread doctrine"; "widespread fear of nuclear war". 2 far-flung: distributed over a considerable extent; "far-flung trading operations"; "the West's far-flung mountain ranges"; "widespread nuclear fallout". 3 affecting a large area (e.g. the entire land or body); broad in extent.

wring out v – squeeze out (extract (liquid) by squeezing or pressing) "wring out the washcloth".

Chapter 2

account v – 1 calculate, keep an account of. 2 report, describe, to give an account or representation of in words "*Discreet Italian police described it in a manner typically continental*". 3 answer for (furnish a justifying analysis or explanation) "*I can't account for the missing money*".

acquire (HIV) v – get, come into the possession of something concrete or abstract; "She got a lot of paintings from her uncle"; "They acquired a new pet"; "Get your ...

affected pp - influenced or changed by something; simulated in order to impress.

annual adj – 1 (in botany) a plant that completes its entire life cycle within the space of a year. 2 a reference book that is published regularly once every year. 3 occurring or payable every year; "an annual trip to Paris"; "yearly medical examinations"; "annual (or yearly) income".

approximately adv – about; imprecise but close to in quantity or amount.

attributable adj – capable of being attributed "*the collapse of the movement was attributable to a lack of morale*"; "*an idea attributable to a Russian*".

attribute v – impute, credit to; "We attributed this quotation to Shakespeare"; "People impute great cleverness to cats".

behaviour n – behaviour, conduct, doings (manner of acting or controlling yourself).

break-up n – end of a marriage, coalition, etc.

break-up v – 1 **to come apart; "the group broke up"**. 2 **split up, disperse**.

breeding ground for something – 1 used to speak about something bad such as crime, which can easily develop in that situation or place. 2 **breeding ground for** a particular type of creature is the place where this creature breeds easily.

bridge (into the general population) v – 1 bridge over (connect or reduce the distance between). 2 make a bridge across "*bridge a river*". 3 cross over on a bridge.

casual adj – a **casual** event or situation happens by chance or without planning.

challenge n – a demanding or stimulating situation; "they reacted irrationally to the challenge of Russian power".

comprise v – constitute, represent, make up, be (form or compose) "*This money is my only income*"; "*The stone wall was the backdrop for the performance*"; "*These constitute my entire belonging*"; "*The children made up the chorus*"; "*This sum represents my entire income for a year*"; "*These few men comprise his entire army*".

contraception n - contraceptive method (birth control by the use of devices (diaphragm or intrauterine device or condom) or drugs or surgery).

convict n – a person serving a sentence in a jail or prison.

derived adj – formed or developed from something else; not original "*the belief that classes and organizations are secondary and derived*"- John Dewey.

develop v – **1** cause to grow and differentiate in ways conforming to its natural development; "The perfect climate here develops the grain"; "He developed a new kind of apple". **2** develop - generate gradually; "We must develop more potential customers"; "develop a market for the new mobile phone".

diagnose v – name, determine or distinguish the nature of a problem or an illness through a diagnostic analysis. **2** subject to a medical analysis.

dominate v – **1** predominate, be larger in number, quantity, power, status or importance; "Money reigns supreme here"; "Hispanics predominate in this neighborhood". **2** be in control; "Her husband completely dominates her". **3** have dominance or the power to defeat over; "Her pain completely mastered her"; "The methods can master the problems".

double adj – twice as great or many; "ate a double portion"; "the dose is doubled"; "a twofold increase"

drug trafficking n – drug traffic, narcotraffic, traffic in illegal drugs

due to prep – because of; caused by; as a result of.

elsewhere adv – in or to another place; "he went elsewhere"; "look elsewhere for the answer".

entering (the prison) n – entrance: a movement into or inward.

ever-growing adj – growing continuously.

extent n – the point or degree to which something extends; "the extent of the damage"; "the full extent of the law"; "to a certain extent she was right".

feature n – a prominent attribute or aspect of something; "the map showed roads and other features"; "generosity is one of his best characteristics".

feature v – have, have as a feature; "This restaurant features the most famous chefs in France".

fertile adj – breeding the production of animals or plants by inbreeding or hybridization.

furthermore adv – in addition; besides; what's more; used to denote additional information.

hard adj – very difficult to do or deal with. "It's hard to tell what effect this latest move will have."

heterosexual intercourse – sexual intercourse, in its biological sense, it is the act in which the male reproductive organ (in humans and other higher animals) enters the female reproductive tract, called copulation or coitus in other reference.

highlight v – 1 emphasize the problem or make you think about it. 2 mark a piece of text in a different colour, either with a special type of pen or on a computer screen. “Highlight the chosen area by clicking and holding down the left mouse button.”

identify v – 1 place, recognize as being; establish the identity of someone or something *"She identified the man on the 'wanted' poster"*. 2 (oneself) as similar to somebody else) *"He identified with the refugees"*. 3 consider to be equal or the same *"He identified his brother as one of the fugitives"*.

inmate n – one of several resident of a dwelling (especially someone confined to a prison or hospital).

inpatient n – a patient who is residing in the hospital where he is being treated.

level off v – become level or even; *"The ground levelled off"*.

lower income adj – persons and families whose gross incomes do not exceed the qualifying limits for lower income families.

majority of n – more than half of people or things.

middle-income adj – the middle class, in colloquial usage, consists of those who have some economic independence but not a great deal of social influence or power.

misconception n – an incorrect conception.

monogamous adj – having a sexual relationship with only one partner. “Do you believe that men are not naturally monogamous?”

multiple adj – having or involving or consisting of more than one part or entity or individual *"multiple birth"*; *"multiple ownership"*; *"made multiple copies of the speech"*; *"his multiple achievements in public life"*; *"her multiple personalities"*; *"a pineapple is a multiple fruit"*.

nearby adj – close at hand *"the nearby towns"*; *"concentrated his study on the nearby planet Venus"*.

nearby adv – not far away in relative terms *"she works nearby"*; *"the planets orbiting nearby are Venus and Mars"*.

newly (registered) – registered very recently; *"they are newly married"*; *"newly raised objections"*; *"a newly arranged hairdo"*; *"grass new washed by the rain"*; *"a freshly cleaned ..."*

once again adv – again, anew; *"she tried again"*; *"they rehearsed the scene again"*.

outbreak n – outbreak, eruption, irruption, a sudden violent spontaneous occurrence (usually of some undesirable condition) *"the outbreak of hostilities"*.

outbreak of – (something) usually unpleasant, such as violence or a disease - sudden beginning; “The four-day festival ended a day early after an outbreak of violence involving hundreds of youths” “...the outbreak of war in the Middle East” In Peru, a cholera outbreak continues to spread”.

over representation n – of a racial/ethnic group that has a number of its members in some condition in greater numbers than would be expected based on their representation.

overall adj – 1 involving only main features; *"the overall pattern of his life"*. 2 including everything; *"the overall cost"*.

overall n – a loose protective coverall or smock worn over ordinary clothing for dirty work.

overlap n – 1 convergence, intersection, a representation of common ground between theories or phenomena *"there was no overlap between their proposals"*. 2 the property of partial coincidence in time

pace n – 1 the rate of moving (especially walking or running). 2 footstep: the distance covered by a step; "he stepped off ten paces from the old tree and began to dig". 3 walk with slow or fast paces; "He paced up and down the hall".

paraphernalia n – gear, appurtenance, equipment consisting of miscellaneous articles needed for a particular operation or sport etc.

pattern n – graphical representation.

pose to v – (about a problem or a danger), cause the problem or danger; "This could pose a threat to jobs in the coal industry."

precise adj – 1 sharply exact or accurate or delimited; "a precise mind"; "specified a precise amount"; "arrived at the precise moment". 2 accurate: (of ideas, images, representations, expressions) characterized by perfect conformity to fact or truth ; strictly correct; "a precise image"; "a precise measurement".

prevalence n – the proportion of individuals in a population having a disease.

range from to v – **range between** two points or **range from** one point **to** another, vary within these points on a scale of measurement or quality. "They range in price from \$3 to \$15."

rate n – a quantity or amount or measure considered as a proportion of another quantity or amount or measure; "the literacy rate"; "the retention rate"; "the dropout rate".

reported pp – made known or told about; especially presented in a formal account; "his reported opinion"; "the reported findings".

respective (sexual partners) adj – 1 considered individually; "the respective club members"; "specialists in their several fields"; "the various reports all agreed". 2 involving two or more people or things, in reference to them as individuals.

rise n – a growth in strength or number or importance.

route n – a way from one place to another.

sex workers n – a person who works in the sex industry.

sexual transmission n – infection, contagion, an incident in which an infectious disease is transmitted.

similarly adv – in like or similar manner; "He was similarly affected"; "some people have little power to do good, and have likewise little strength to resist .

slenderly adv – in a slim or slender manner; "a slenderly built woman"; "slightly built".

slightly adv – to a small degree or extent; "his arguments were somewhat self-contradictory"; "the children argued because one slice of cake was slightly larger ...

state v – say or write it in a formal or definite way.

steep adj – 1 having a sharp inclination; "the steep attic stairs"; "steep cliffs". 2 let sit in a liquid to extract a flavor or to cleanse; "steep the blossoms in oil"; "steep the fruit in alcohol". 3 a steep place (as on a hill).

stigma n – if something has a **stigma** attached to it, people think it is something to be ashamed of. "There is a strong argument for remaining an unmarried mother. There's no stigma attached any more."

survey n – **1** the systematic examination of the ground surface in search of archaeological sites. **2** the collection of information from a common group through interviews or the application of questionnaires to a representative sample of that group.

top v – (tops; topping; topped) to become bigger than a particular amount, larger than that amount.

traffic v – **1** deal illegally *"traffic drugs"*. **2** trade or deal a commodity *"They trafficked with us for gold"*.

trend n – **1** tendency, a general direction in which something tends to move; "the shoreward tendency of the current"; "the trend of the stock market". **2** course, general line of orientation; "the river takes a southern course"; "the northeastern trend of the coast".

underestimate v – undervalue, assign too low a value to; "Don't underestimate the value of this heirloom-you may sell it at a good price".

underground adv – **1** in or into hiding or secret operation; "the organization was driven underground". **2** belowground, under the level of the ground; "belowground storage areas"; "underground caverns".

underreport v – report a number falsely, making it smaller than it ought to be, especially to do so intentionally.

unprotected adj – lacking protection or defence.

unsafe adj – **1** insecure, lacking in security or safety *"his fortune was increasingly insecure"*; *"an insecure future"*. **2** dangerous, involving or causing danger or risk; liable to hurt or harm *"a dangerous criminal"*; *"a dangerous bridge"*; *"unemployment reached dangerous proportions"*.

TESTS

HIV/AIDS

Test 1 (Chapter 1) Task 1. Complete the following phrases.

1. HIV is thought to have originated in

.....

2. HIV is transmitted through

.....

3. A person cannot get HIV through

.....

4. The symptoms of AIDS include

.....

Task 2. Fill in the gaps with a) the words given: frenzied, vary, AIDS, high-risk, leading

..... scientists, opinions widely, a marker of behaviour, sexual activity, '..... by prescription'

b) the prepositions: in, in, in, on, on, through, of, at, among, over

transmitted ways, put another person risk, consensus medical scientists, unanimous anything, act one's own, be present human populations, abuse narcotics, work the case, the next 18 months, common immunosuppressed patients

Task 3. Match the definitions to the words.

1) transfusion	A establish the truth or correctness of smth previously believed or suspected to be the case
2) consensus	B an irregularly shaped spot
3) frenzied	C an act of transfusing donated blood, blood products, or other fluid into the circulatory system of a person or animal
4) suspect	D an organ in the human or animal body which secretes particular chemical substances for the use in the body or for discharge into the surroundings
5) confirm	E wildly excited or uncontrolled
6) fatigue	F have an idea or impression of the existence, presence, or truth of smth without certain proof
7) deterioration	G partial or total lack of sensation in a part of the body
8) blotch	H general agreement, unanimity
9) numbness	I decline in quality, worsening (process of changing to an inferior state)
10) gland	J weariness, tiredness

1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _ 8 _ 9 _ 10 _

HIV/AIDS

Test 2 (Chapter 2) Task 1. Complete the following phrases.

1. HIV/AIDS threatens human development because

.....
.....
.....

2. The most affected areas of Ukraine are

.....
.....
.....

3. The most common ways of acquiring HIV/AIDS nowadays are

.....
.....
.....

4. The socioeconomic reasons for the spread of HIV/AIDS epidemic are

.....
.....
.....

Task 2.

Fill in the gaps with a) the words given: public, 'bridge', national, critical, rates, growth, outbreaks, fertile

..... security, intellectual and industrial, health, reach levels, low prevalence....., initial, into the general population, breeding grounds

b) the prepositions: on, through, across, in, in, for, off, of, to, to, to

..... a lesser extent, ascribed, acquire HIV, the region, rise, account, level, prevalent, information, independent, in comparison

Task 3. Match the definitions to the words.

1) threaten	A to influence, impress
2) undermine	B to act or speak for
3) security	C a resident of a dwelling (especially someone confined to a prison or hospital)
4) affect	D to seem likely to occur or come
5) vulnerable	E that happens by chance or without planning
6) represent	F to weaken gradually
7) inmate	G safety, freedom from danger
8) underreport	H to calculate value, cost or size
9) casual	I not protected against attack
10) estimate	J to report a number falsely

1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _ 8 _ 9 _ 10 _

HIV/AIDS

Test 3 (Chapter 3) Task 1. Complete the following phrases.

1. HIV prevention programmes in Ukraine are aimed at

.....
.....
.....

2. Blood transfusions have become safer in Ukraine due to

.....
.....
.....

3. To prevent HIV transmission everybody should

.....
.....
.....

Task 2. Fill in the gaps with

a) the words given: relax, wide-scale, tackled, nationwide, comprehensive, introduction, harassment, overwhelming

the majority, be effectively , the criteria, police
....., availability, the belated, a programme,
..... harm-reduction programme

b) the prepositions: into, between, of, up, up, to, among

the availability, relative, share, infection trends, set, be
scaled, be integrated

Task 3. Match the definitions to the words.

1) access	A the act of decreasing or reducing something
2) availability	B testing objects or persons in order to identify those with particular characteristics
3) harassment	C free of pathological microorganisms
4) reduction	D the right to enter or to obtain
5) screening	E ability to use or obtain
6) sterile	F the act of tormenting by continued persistent attacks and criticism
7) reverse	G the art preparing medicines; drugstore
8) regarding	H the act of giving something or making it available to people who need or want it
9) pharmacy	I change to the contrary
10) provision	J concerning, respecting

1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _ 8 _ 9 _ 10 _

UNIT 3. THE PROBLEM OF TUBERCULOSIS EPIDEMIC

CHAPTER 1. WHAT IS TUBERCULOSIS?

1 A. Read the text below and innumerate the reasons of tuberculosis reemergence in Ukraine and worldwide.

Tuberculosis reemerges

Tuberculosis (abbreviated as **TB** for *tubercle bacillus* or **Tuberculosis**) was once considered to **be on track for** global **eradication**, along with **smallpox**. By the late 1980s, however, a disturbing **upswing** in the number of new cases was detected worldwide. A report by the World Health Organization **released** in March 2005 shows the number of new TB cases stabilizing or even declining in most regions of the world, but not in Africa or Eastern Europe.

TODAY: Every second, a person is newly infected with TB. Around 1/3 of the world's population – nearly 2 billion people – have TB. An active, untreated TB case can infect up to 15 more people each year.

Many factors **fuel** the TB epidemic. The number of **TB strains** that are resistant to **multiple drugs** is higher in parts of Eastern Europe than almost anywhere else, making treatment difficult. The rising rates of HIV infection also are beginning to influence the number of new TB cases (TB is the most common **opportunistic infection** and the leading cause of death among AIDS patients).

1 B. Fill in the correct preposition, then make sentences using the completed phrases.

on, in, to, to, among, with, for, for

be on track global eradication, upswingthe number, resistant multiple drugs, pass the disease ... others, the leading cause of death AIDS patients, TB *tubercle bacillus*, based an outdated screening technique, along smallpox

1 C. Fill in the words from the list, then make sentences using the completed phrases.

setback, fuel, eradication, detection, individuals, miniature, opportunistic, abbreviated

..... as TB for Tuberculosis, on track for global, the TB epidemic, the most common infection, suffer a, TB chest x-rays, infected

1 E. Match the words with their definitions

TB strain	a group of organisms within a species that differ in trivial ways from similar groups
x-ray	the Latin <i>varius</i> , meaning spotted, or <i>varus</i> , meaning "pimple"
opportunistic infection	a radiogram made by exposing photographic film to X rays; used in medical diagnosis
smallpox	disease caused by an opportunistic organism, opportunistic infections that kill AIDS patients

2 A. Read the texts and find answers to the following questions:

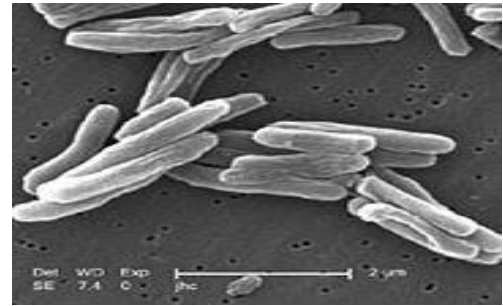
a) Which bacteria cause tuberculosis in humans/animals?

b) How does pulmonary TB differ from extra pulmonary TB? Which of them is contagious?

c) Innumerate names of organs making up the circulatory system/ the genitourinary system/ the gastrointestinal system?

d) What are the symptoms of TB? Which of them do you have when you have a common cold?

e) How can tuberculosis be diagnosed?



Tuberculosis is caused by **mycobacteria**, in humans mainly *Mycobacterium tuberculosis*. Tuberculosis usually attacks the lungs (as pulmonary TB) but can also affect the central nervous system, the lymphatic system, the **circulatory system**, the **genitourinary** system, the **gastrointestinal** system, bones, joints, and even the skin. Other mycobacteria such as *Mycobacterium bovis*, *Mycobacterium africanum*, *Mycobacterium canetti*, and *Mycobacterium microti* also cause tuberculosis, but these species are less common in humans.

Symptoms

Main symptoms of variants and stages of tuberculosis, with many symptoms **overlapping** with other variants, while others are more (but not **entirely**) specific for certain variants. Multiple variants may be present **simultaneously**.

When the disease becomes active, 75% of the cases are pulmonary TB. Symptoms include chest pain, coughing up blood, and a **productive, prolonged** cough for more than three weeks. Systemic symptoms include fever, chills, night sweats, appetite loss, weight loss, **pallor**, and often a tendency to **fatigue** very easily.

In the other 25% of active cases, the infection moves from the lungs, causing other kinds of TB, collectively denoted **extrapulmonary** tuberculosis. This occurs more commonly in immunosuppressed persons and young children. Extrapulmonary **infection sites** include the **pleura** in tuberculosis **pleurisy**, the central nervous system in meningitis, the lymphatic system in scrofula of the neck, the genitourinary system in urogenital tuberculosis, and bones and joints in Pott's disease of the **spine**. An especially serious form is **disseminated** TB, more commonly known as **miliary tuberculosis**. Although extrapulmonary TB is not **contagious**, it may co-exist with pulmonary TB, which is contagious.

The diagnosis **relies on** radiology (commonly chest X-rays), a tuberculin skin test, blood tests, as well as microscopic examination and **microbiological culture** of bodily fluids. Tuberculosis treatment is difficult and **requires** long courses of multiple antibiotics. Contacts are also **screened** and treated if necessary. Antibiotic

resistance is a growing problem in (**extensively**) multi-drug-resistant tuberculosis. Prevention relies on screening programs and vaccination, usually with Bacillus Calmette-Guérin (BCG vaccine).

(From Tobin E., Tristram D.)

2 B. Fill in the correct preposition, then make sentences using the completed phrases.

with, to, in, for, by, up

common humans, caused mycobacteria, specific certain variants, coughing blood, a tendency fatigue, co-exist

2 C. Fill in the words from the list, then make sentences using the completed phrases.

loss, collectively, attack, prolonged, chest, sweats, sites, weight, multiple, immunosuppressed

..... the lungs, variants, pain, cough, night, appetite, loss, denoted, persons, infection

3 A. Read the text and consider the following:

- a) *How can TB be transmitted?*
- b) *Which groups of people are more vulnerable in terms of getting TB?*
- c) *What does the probability of TB transmission depend on?*
- d) *What measures are needed to break the chain of TB transmission? How much effective are they?*
- e) *Which regions of the world are the hardest hit by TB? Why?*

Ways of transmission

When people suffering from active pulmonary TB cough, sneeze, speak, or spit, they **expel** infectious aerosol **droplets** 0.5 to 5 µm in diameter. A single sneeze can **release** up to 40,000 droplets. Each one of these droplets may transmit the disease, since the infectious dose of tuberculosis is very low and the inhalation of just a single bacterium can cause a new infection.

People with prolonged, frequent, or **intense** contact are at particularly high risk of becoming infected, with an estimated 22% infection rate. A person with active but untreated tuberculosis can infect 10–15 other people per year. Others at risk include people in areas where TB is common, people who inject drugs using **unsanitary** needles, residents and employees of high-risk **congregate settings**, medically **under-served** and **low-income** populations, high-risk racial or ethnic minority populations, children exposed to adults in high-risk categories, patients **immunocompromised** by

conditions such as HIV/AIDS, people who take immunosuppressant drugs, and health care workers serving these high-risk clients.

Transmission can only occur from people with active – not latent – TB. The probability of transmission from one person to another depends upon the number of infectious droplets expelled by a **carrier**, the effectiveness of ventilation, the duration of **exposure**, and the **virulence** of the M. tuberculosis strain. The chain of transmission can, therefore, be broken by isolating patients with active disease and starting effective anti-tuberculous therapy. After two weeks of such treatment, people with non-resistant active TB generally **cease** to be contagious. If someone does become infected, then it will take at least 21 days, or three to four weeks, before the newly infected person can transmit the disease to others. TB can also be transmitted by eating meat infected with TB. **Mycobacterium bovis** causes TB in cattle.

The proportion of people in the **general population** who become sick with tuberculosis each year is stable or falling worldwide but, because of population growth, the absolute number of new cases is still increasing. In 2004, mortality and morbidity statistics included 14.6 million chronic active cases, 8.9 million new cases, and 1.6 million deaths, mostly in developing countries. In addition, a rising number of people in the developed world are **contracting** tuberculosis because their immune systems are **compromised** by **immunosuppressive** drugs, **substance abuse**, or AIDS. The **distribution** of tuberculosis is not **uniform across the globe** with about 80% of the population in many Asian and African countries testing positive in tuberculin tests, while only 5-10% of the US population test positive. It is estimated that the US has 25,000 new cases of tuberculosis each year, 40% of which occur in immigrants from countries where tuberculosis is endemic.

(From Tobin E., Tristram D.)

3 B. Fill in the correct preposition, then make sentences using the completed phrases.

across, in, in, up to, by, per, from, to, at, at

suffer cough, diameter, 40,000 droplets, particularly high risk, year, exposed, expelled, least, the globe, immigrants

3 C. Fill in the words from the list, then make sentences using the completed phrases.

congregate, statistics, untreated, chain, infectious, under-served, contagious, unsanitary

the dose, active but tuberculosis, needles, high-risk settings, and low-income populations, the of transmission, cease to be, mortality and morbidity

4 A. Agree or disagree with the statements below:

- a) Domestic animals such as cats and dogs often carry TB.
- b) Wild animals are much healthier as they are free of tuberculosis.
- c) Bovine tuberculosis is a serious problem for farmers in New Zealand and the United Kingdom.
- d) Without doubt, the only way to settle the problem is the eradication of certain species carrying bovine TB.
- e) The UK government entirely supports the culling policy.

4 B. Read the text and prove your answers. Were you right in all your suggestions?

Infection of other animals

Tuberculosis can be carried by mammals; **domesticated** species, such as cats and dogs, are generally **free of** tuberculosis, but wild animals may be carriers.

Mycobacterium bovis causes TB in cattle. An effort to eradicate bovine tuberculosis from the cattle and deer **herds** of New Zealand **is underway**. It has been found that herd infection is more likely in areas where infected natural reservoir such as Australian **brush-tailed possums** come into contact with domestic **livestock** at farm/bush borders. Controlling the **vectors** through possum **eradication** and monitoring the level of disease in livestock herds through regular **surveillance** are seen as a "two-pronged" approach to ridding New Zealand of the disease.

In the Republic of Ireland and the United Kingdom, **badgers** have been identified as one vector species for the transmission of bovine tuberculosis. As a result, governments have come **under pressure** from some quarters, primarily dairy farmers, to **mount** an active campaign of eradication of badgers in certain areas with the purpose of reducing the incidence of bovine TB. The effectiveness of **culling on** the incidence of TB in cattle is a **contentious issue**, with **proponents** and **opponents citing their own studies** to support their position. For instance, a study by an Independent Study Group on badger culling reported on 18 June 2007 that it was unlikely to be effective and would only make a "modest difference" to the spread of TB and that "badger culling cannot meaningfully contribute to the future control of cattle TB"; in contrast, another report concluded that this policy would have a significant impact. On July 4 2008, the UK government **decided against** a proposed random culling policy.

(From Bovine-tuberculosis)

4 C. Fill in the words from the list, then make sentences using the completed phrases.

eradicate, livestock, impact, species, campaign, reducing

domesticated....., an effort to, domestic, to mount an active, the purpose of the incidence, have a significant

4 D. Fill in the correct preposition, then make sentences using the completed phrases.

through, against, under, of, in, in

free TB; cause TBcattle; the level of disease herds;
regular surveillance; come pressure from; decide a proposed policy

4 E. Read the article again and take notes under the headings starting with:

1) "Some animals may be carriers..." 2) "In New Zealand an effort to eradicate bovine TB is underway..." 3) "The effectiveness of culling on the incidence of TB in cattle is a contentious issue..."

A. Look at the picture below and comment on the non-verbal / verbal information presented. What do the words "hear, act, learn, treat" imply?

5 B. Read the text and describe the two widely accepted approaches to TB prevention and control. How can you explain the development of a Global Plan to Stop Tuberculosis? Which factors make people more susceptible to TB? Make a list of them. Consider your personal risks taking into account all the known factors contributing to TB infection.



Prevention

TB prevention and control takes two parallel **approaches**. In the first, people with TB and their contacts **are identified** and then treated. **Identification** of infections often involves testing high-risk groups for TB. In the second approach, children are **vaccinated** to protect them from TB. Unfortunately, no vaccine is available that provides reliable protection for adults. However, in tropical areas where the levels of other species of mycobacteria are high, exposure to nontuberculous mycobacteria gives some protection against TB.

The World Health Organization (W.H.O.) **declared** TB a global health emergency in 1993, and the Stop TB Partnership developed a Global Plan to Stop Tuberculosis that aims to save 14 million lives between 2006 and 2015. Since humans are the only host of *Mycobacterium tuberculosis*, eradication would be possible: a goal that would be helped greatly by an effective vaccine.

There are a number of known factors that make people more **susceptible** to TB infection: worldwide the most important of these is HIV. Co-infection with HIV is a particular problem in Sub-Saharan Africa, due to the high incidence of HIV in these countries. Smoking more than 20 cigarettes a day also increases the risk of TB by two to four times. Diabetes mellitus is also an important risk factor that is growing in importance in developing countries. Other disease states that increase the risk of

developing tuberculosis are Hodgkin lymphoma, end-stage **renal disease**, chronic lung disease, **malnutrition**, and alcoholism.

Diet may also **modulate** risk. For example, among immigrants in London from the Indian **subcontinent**, vegetarian Hindu Asians were found to have an 8.5 **fold** increased risk of tuberculosis, compared to Muslims who ate meat and fish daily. Although a **causal** link is not proved by this data, this increased risk could be caused by **micronutrient deficiencies**: possibly iron, vitamin B12 or vitamin D. Further studies have provided more evidence of a link between vitamin D deficiency and an increased risk of contracting tuberculosis. Globally, the severe malnutrition common in parts of the developing world causes a large increase in the risk of developing active tuberculosis, due to its damaging effects on the immune system. **Along with overcrowding**, poor nutrition may contribute to the strong link observed between tuberculosis and poverty.

(From WHO guidelines on tuberculosis infection prevention and control 2019 update)

5 C Match the definitions to the words:

<i>identification</i>	the state of needing something that is absent or unavailable
<i>approach</i>	a state of poor nutrition
<i>declare</i>	yielding readily to or capable of
<i>susceptible</i>	announce, announce publicly or officially
<i>malnutrition</i>	containing too many occupants for an area of its size
<i>deficiency</i>	the process of recognizing something or someone by remembering
<i>overcrowding</i>	ideas or actions intended to deal with a problem or situation

5 D. Fill in the words from the list, then make sentences using the completed phrases.

species, high-risk, approaches, reliable, subcontinent, disease, emergency

take parallel, provide protection, end-stage renal, Indian, declare TB a global health, test groups, other of mycobacteria

5 E. Fill in the correct preposition, then make sentences using the completed phrases.

on, in, for, to, by

reliable protectionadults, susceptibleTB infection, increase the risk two to five times, a large increase the risk, due its damaging effect, effect the immune system.

6 A. Read the text and say why BCG vaccine is commonly used in children. Explain why BCG is not given to the entire population in some countries. How can

you explain the existence of an urgent need for a new vaccine nowadays? In what ways are further discoveries encouraged? Give examples to prove your answers.

Vaccines

Many countries use Bacillus Calmette-Guérin (BCG) vaccine as part of their TB control programs, especially for infants. According to the W.H.O., this is the most often used vaccine worldwide, with 85% of infants in 172 countries immunized in 1993. This was the first vaccine for TB and developed at the Pasteur Institute in France between 1905 and 1921. However, mass vaccination with BCG did not start until after World War II. The protective **efficacy** of BCG for preventing serious forms of TB (e.g. meningitis) in children is greater than 80%; its protective efficacy for preventing pulmonary TB in adolescents and adults is **variable**, ranging from 0 to 80%.

In South Africa, the country with **the highest prevalence of TB**, BCG is given to all children under age three. However, BCG is less effective in areas where mycobacteria are less **prevalent**; therefore BCG is not given to the **entire** population in these countries. In the USA, for example, BCG vaccine is not recommended except for people who **meet specific criteria**:

- Infants or children with negative skin test results who are **continually** exposed to untreated or ineffectively treated patients or will be continually exposed to multidrug-resistant TB.
- Healthcare workers considered on an individual basis in **settings** in which a high percentage of MDR-TB patients has been found, transmission of MDR-TB is likely, and TB control **precautions** have been **implemented** and were not successful.

BCG **provides** some protection against **severe** forms of pediatric TB, but has been shown to be **unreliable against** adult pulmonary TB, which **accounts for** most of the **disease burden** worldwide. Currently, there are more cases of TB on the planet than at any other time in history and most agree there is **an urgent need** for a newer, more effective vaccine that would prevent all forms of TB – including drug resistant strains – in all age groups and among people with HIV.

Several new vaccines to prevent TB infection are being developed. The first **recombinant** tuberculosis vaccine rBCG30, **entered clinical trials** in the United States in 2004, sponsored by the National Institute of Allergy and Infectious Diseases (NIAID). A 2005 study showed that a DNA TB vaccine given with **conventional** chemotherapy can accelerate the disappearance of bacteria as well as protect against re-infection in mice; it may take four to five years to be available in humans. A very promising TB vaccine, MVA85A, is currently in **phase II trials** in South Africa by a group led by Oxford University, and is based on a genetically modified vaccinia virus. Many other strategies are also being used to develop **novel** vaccines, including both **subunit vaccines** (fusion molecules composed of two recombinant proteins delivered in an **adjuvant**) such as Hybrid-1, HyVac4 or M72, and recombinant adenoviruses such as Ad35. Some of these vaccines can be effectively **administered** without needles, making them **preferable** for areas where HIV is very common. All of these vaccines have been successfully tested in humans and are now in extended

testing in **TB-endemic** regions. In order to encourage further discovery, researchers and policymakers are promoting new economic models of vaccine development including prizes, tax incentives and advance **market commitments**.

The Bill and Melinda Gates Foundation has been a strong supporter of new TB vaccine development. Most recently, it announced a \$200 million grant to the Aeras Global TB Vaccine Foundation for clinical trials on up to six different TB vaccine candidates currently in the **pipeline**.

(From Okafor C.; Rewane A.; Momodu I.)

6 B. Read the text and find eight sentences that have verbs in the passive voice. Translate them into Russian. Compare the translated structures to their English equivalents.

6 C. Match the definitions to the words:

<i>prevalence</i>	constituting the full quantity or extent; complete
<i>administer</i>	be the reason or explanation for
<i>continually</i>	the context and environment in which something is set
<i>settings</i>	safeguard, guard
<i>precautions</i>	the ratio (for a given time period) of the number of occurrences of a disease or event to the number of units at risk in the population
<i>account for</i>	give or apply (medications)

6 D. Fill in the words from the list, then make sentences using the completed phrases.

severe, administer, efficacy, criteria, precautions, worldwide, trials

the protective, meet specific, TB control, protection against forms of disease, the disease burden, enter clinical,vaccines without needles

6 E. Fill in the correct preposition, then make sentences using the completed phrases.

for, from...to, to, on, of, for, for,

accordingthe WHO, the highest prevalence TB, account disease burden, an urgent need, clinical trialscandidates, range 0 80%, preferable this area

7 A. Match the definitions to the words:

<i>treatment</i>	extinguish, get rid of, do away with
<i>eliminate</i>	ignored, unheeded (disregarded)
<i>reduce</i>	unequal (lacking the requisite qualities or resources to meet a task

<i>progress</i>	come on, come along, advance, get on, get along, shape up
<i>risk-free</i>	(medicine) a systematic plan for therapy (often including diet)
<i>regimen</i>	thought to be devoid of risk
<i>neglected</i>	care provided to improve a situation (especially medical procedures)
<i>inadequate</i>	cut down, cut back, trim, trim down, trim back, cut, bring down, make a reduction in

7 B. Read the text and give answers to the following questions:

- What is different in the treatment of latent and active forms of TB? Why?*
- Why is the treatment of TB with combined antibiotics dangerous?*
- What are the reasons for drug resistant TB development?*
- What are the aims of DOTS?*

Treatment

Treatment for TB uses antibiotics to kill the bacteria. The two antibiotics most commonly used are **rifampicin and isoniazid**. However, instead of the short course of antibiotics typically used to cure other bacterial infections, TB requires much longer periods of treatment (around 6 to 12 months) to **entirely eliminate** mycobacteria from the body. **Latent** TB treatment usually uses a single antibiotic, while active TB disease is best treated with combinations of several antibiotics, **to reduce the risk** of the bacteria developing **antibiotic resistance**. People with latent infections are treated to prevent them from **progressing** to active TB disease later in life. However, treatment using Rifampicin and Pyrazinamide is not **risk-free**. The Centers for Disease Control and Prevention (CDC) **notified** healthcare professionals of **revised** recommendations against the use of rifampicin plus pyrazinamide for treatment of latent tuberculosis infection, due to high rates of hospitalization and death from **liver injury associated with** the combined use of these drugs.

Drug resistant tuberculosis is transmitted in the same way as regular TB. **Primary resistance occurs** in persons who are infected with a **resistant strain** of TB. A patient with fully **susceptible** TB develops **secondary resistance** (acquired resistance) during TB therapy because of **inadequate** treatment, not taking the **prescribed regimen** appropriately, or using low quality medication. Drug-resistant TB is a public health **issue** in many developing countries, as treatment is longer and requires more expensive drugs. Multi-drug-resistant tuberculosis (MDR-TB) is defined as resistance to the two most effective first-line TB drugs: rifampicin and isoniazid. **Extensively** drug-resistant TB (XDR-TB) is also resistant to three or more of the six classes of **second-line drugs**. The DOTS (Directly Observed Treatment Short-course) strategy of tuberculosis treatment based on **clinical trials** done in the 1970s by Tuberculosis Research Centre, Chennai, India, focusing on a **neglected** area of infectious disease control is now showing **promising results** in effectively treating all TB cases in the community.

(From Padma I., Muralidhara K.)

7 C. Fill in the words from the list, then make sentences using the completed phrases.

promising, commonly, eliminate, regimen, use, resistance, rates

most used, entirely mycobacteria, due to high of hospitalization, combined of drugs, develop secondary, take the prescribed appropriately, show results

7 E. Give explanations to the words in bold, make up sentences with them and write them down.

8 A. Consider the following questions:

a) What do you know about three primary diseases of poverty?

b) In what way do you think globalization increases opportunities for disease spread?

8B. Read the text below and confirm your answers.

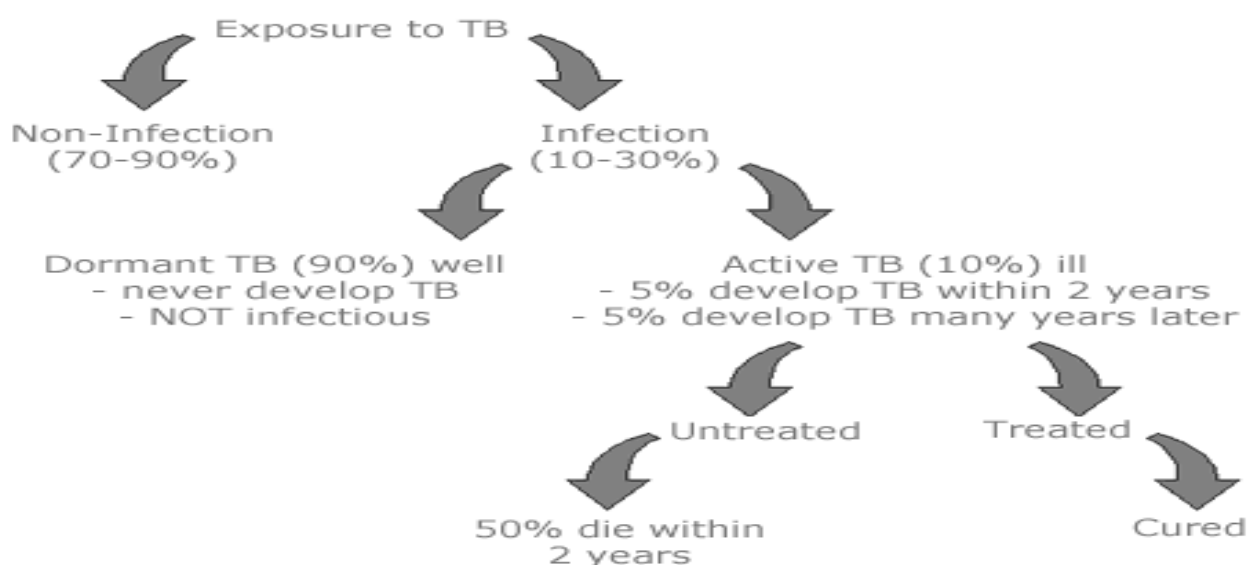
Tuberculosis is one of the three **primary diseases** of poverty along with AIDS and malaria. The Global Fund to Fight AIDS, Tuberculosis and Malaria was started in 2002 to raise finances to address these infectious diseases. Globalization has led to increased opportunities for **disease spread**. In 2007 a **tuberculosis scare** occurred when Andrew Speaker flew on a transatlantic flight well infected with multi-drug-resistant tuberculosis.

9 A. Read the text and study the table. Describe the natural history of TB infection using the language of the unit and the following phrases: be exposed, get infected, develop the disease, become infectious, get treatment, get cured

Progression from TB infection to TB disease occurs when the TB bacilli **overcome** the immune system defenses and begin to multiply. In primary TB disease—1–5% of cases—this occurs soon after infection. However, in the majority of cases, a latent infection occurs that has no **obvious symptoms**. These **dormant bacilli** can produce tuberculosis in 2–23% of these latent cases, often many years after infection. The risk of reactivation increases with **immunosuppression**, such as that caused by infection with HIV. In patients co-infected with M. tuberculosis and HIV, the risk of reactivation increases to 10% per year.

(From Padma I., Muralidhara K.)

The Natural History of TB Infection



9 B. Fill in the chart.

noun	Verb	past participle
exposure		exposed
	Infect	
		cured

9 C. Give explanations to the words in bold, make up sentences with them and write them down.

Working with Media: Presenting Survey Results

Conduct a survey of the faculty students. Make up your own list of questions or use the one below:

What do you know about tuberculosis (TB)?

Underline the correct answer.

1) Around the world the number of people with TB is a) 1 million; 2) 50 million; c) 2 billion.

2) Underline TB symptoms: a) coughing, b) fever, c) chills, d) weight loss, e) night sweats, f) pallor (pale face), g) fatigue (feeling tired).

3) TB is transmitted a) through air from people with active TB; b) unsanitary needles; c) from cats and dogs; d) through air from people with active and non-active TB.

4) Factors that fuel TB epidemic are a) HIV; b) heavy smoking; c) diabetes; d) malnutrition; e) alcoholism; f) vegetarian diets; g) vitamins deficiency.

5) The most TB-affected areas are: a) African countries; b) South America; c) North America; d) Western Europe; e) Eastern Europe.

Present the results of the survey in a Power Point presentation.

CHAPTER 2. HISTORY

1 A. Read the text and find the answers to the questions:

- Can tuberculosis be considered as a comparatively new disease along with AIDS?
- Have scientists managed to establish the origin of tuberculosis?
- What shows that tuberculosis has always been a widespread disease?

Tuberculosis has been present in humans since **antiquity**. The earliest **unambiguous detection** of *Mycobacterium tuberculosis* is in the **remains of bison** dated 18,000 years before the present. Whether tuberculosis **originated** in cattle and then transferred to humans, or **diverged from** a common ancestor infecting a different species, is **currently** unclear. However, it is clear that *M. tuberculosis* is not directly **descended** from *M. bovis*, which seems to have **evolved** relatively recently.

Skeletal remains show prehistoric humans (7000 BC) had TB, and tubercular decay has been found in the spines of mummies from 3000–2400 BC. **Phthisis** is a Greek term for tuberculosis; around 460 BC, Hippocrates identified phthisis as the most **widespread** disease of the times **involving** coughing up blood and fever, which was almost always fatal. In South America, the earliest evidence of tuberculosis is associated with the **Paracas-Caverna culture (circa 750 BC to circa 100 AD)**.

(From <https://www.bionity.com/en/encyclopedia/Tuberculosis.html>)

1 B. Fill in the words from the list, then make sentences using the completed phrases.

unambiguous, with, in, descended, since, term

1 be present antiquity; 2 the earliest detection; 3 originate cattle; 4 be directlyfrom *M. bovis*; 5 a Greek for tuberculosis; 6 be associated the Paracas-Caverna culture

2 A. Read the text about different names used earlier for tuberculosis. Fill in the chart using the information from the text. Say which of the names are medical terms. How can you explain the existence of other names?

Name	Origin

Other names



Dr. Robert Koch discovered the tuberculosis bacilli.

In the past, tuberculosis has been called **consumption**, because it seemed to **consume** people **from within**, with a bloody cough, fever, **pallor**, and long **relentless wasting**. Other names included phthisis (Greek for consumption) and phthisis pulmonalis; scrofula (in adults), affecting the lymphatic system and resulting in **swollen neck glands**; tabes mesenterica, TB of the **abdomen** and **lupus vulgaris**, TB of the skin; wasting disease; white plague, because sufferers appear markedly pale; king's evil, because it was

believed that a king's touch would heal scrofula; and Pott's disease, or gibbus of the spine and joints. *Miliary tuberculosis* - now commonly known as **disseminated** TB - occurs when the infection invades the circulatory system resulting in **lesions** which have the appearance of **millet seeds** on X-ray. TB is also called Koch's disease after the scientist Robert Koch.

(From Tuberculosis at Wikipedia)

3 A. Read the text and dwell upon the change in the attitude towards TB victims from times before the Industrial Revolution to the early 20th century. Does stigma exist nowadays? What is your opinion of that?

Folklore

Before **the Industrial Revolution**, tuberculosis may sometimes have been **regarded** as vampirism. When one member of a family died from it, the other members that were infected would lose their health slowly.

People believed that this was caused by the **original victim draining** the life from the other family members. **Furthermore**, people who had TB **exhibited** symptoms similar to what people considered to be vampire **traits**. People with TB often have symptoms such as red, swollen eyes (which also creates a sensitivity to bright light), pale skin, extremely low body heat, a weak heart and coughing blood, **suggesting the idea** that the only way for the **afflicted** to **replenish** this loss of blood was by **sucking** blood. Another folk belief **attributed** it to being forced, nightly, to **attend fairy revels**, so that the victim **wasted away** owing to lack of rest; this belief was most common when a strong connection was seen between the fairies and the dead. **Similarly**, but less commonly, it was attributed to the victims being "**hagridden**" – being transformed into horses by witches (hags) to travel to their nightly meetings, again resulting in a lack of rest.

TB was romanticized in the nineteenth century. Many people believed TB produced feelings of euphoria referred to as "Spes phthisica" or "hope of the consumptive". It was believed that TB sufferers who were artists had **bursts of creativity** as the disease progressed. It was also believed that TB sufferers acquired a final burst of energy just before they died which made women more beautiful and

men more creative. In the early 20th century, some believed TB to be caused by masturbation.

(From Tuberculosis at bionity.com)

3 B. Give explanations to the words in bold and make up sentences with them.

4 A. Read the text about the methods of TB treatment that were used at different times. Fill in the table providing necessary information.

Year	Doctor	Method	Advantages	Disadvantages
1020s	Ibn Sina (Avicenna)	quarantine and diets	limited the spread of TB	not effective

Study and treatment

The study of tuberculosis, sometimes known as phthisiatry, **dates back to** *The Canon of Medicine* written by Ibn Sina (Avicenna) in the 1020s. He was the first physician to identify **pulmonary** tuberculosis as a contagious disease, the first to **recognise** the **association with diabetes**, and the first to suggest that it could spread through contact with soil and water. He developed the method of **quarantine** in order to limit the spread of tuberculosis. In ancient times, treatments focused on sufferers' diets. Pliny the Elder described several methods in his *Natural History*: "wolf's liver taken in **thin wine**, the **lard of a sow** that has been fed upon grass, or the flesh of a she-ass taken in **broth**".

Although it was established that the pulmonary form was associated with "tubercles" by Dr Richard Morton in 1689, **due to** the variety of its symptoms, TB was not identified as a single disease until the 1820s and was not named "tuberculosis" until 1839 by J. L. Schönlein. During the years 1838 – 1845, Dr. John Croghan, the owner of **Mammoth Cave**, brought a number of tuberculosis sufferers into the cave in the hope of curing the disease with the constant temperature and **purity** of the cave air; they died within a year. The first TB **sanatorium** opened in 1854 in Görbersdorf, Germany (today Sokołowsko, Poland) by Hermann Brehmer.

The bacillus causing tuberculosis, *Mycobacterium tuberculosis*, was identified and described on 24 March 1882 by Robert Koch. He received the Nobel Prize in physiology or medicine in 1905 for this discovery. Koch did not believe that bovine (cattle) and human tuberculosis were similar, which **delayed** the recognition of infected milk as a source of infection. Later, this source was **eliminated** by the pasteurization process. Koch announced **a glycerine extract** of the tubercle bacilli as **a remedy for** tuberculosis in 1890, calling it "tuberculin". It was not effective, but was later **adapted** as a test for pre-symptomatic tuberculosis.

The first **genuine** success in **immunizing against** tuberculosis was developed from **attenuated** bovine-strain tuberculosis by Albert Calmette and Camille Guérin in 1906. It was called "BCG" (Bacillus of Calmette and Guérin). The BCG vaccine

was first used on humans in 1921 in France, but it was not until after World War II that BCG **received widespread acceptance** in the USA, Great Britain, and Germany.

Tuberculosis, or "consumption" as it was commonly known, caused the most widespread **public concern** in the 19th and early 20th centuries as an **endemic** disease of **the urban poor**. In 1815, one in four deaths in England was of consumption; by 1918 one in six deaths in France were still caused by TB. In the 20th century, tuberculosis killed an **estimated** 100 million people. After the **establishment** in the 1880s that the disease was contagious, TB was made a **notifiable disease** in Britain; there were campaigns to stop spitting in public places, and the infected poor were **pressured to** enter sanatoria that resembled prisons; the sanatoria for the middle and upper classes **offered** excellent care and constant medical attention. Whatever the **purported benefits** of the fresh air and labor in the sanatoria, even under the best conditions, 50% of those who entered were dead within five years (1916).

(From Tuberculosis at bionity.com)

4 B. Fill in the correct preposition, then make sentences using the completed phrases.

through, against, on, to, of, for, with

date back, the association diabetes, spread, focused, due, in the hope, a remedy, immunizing

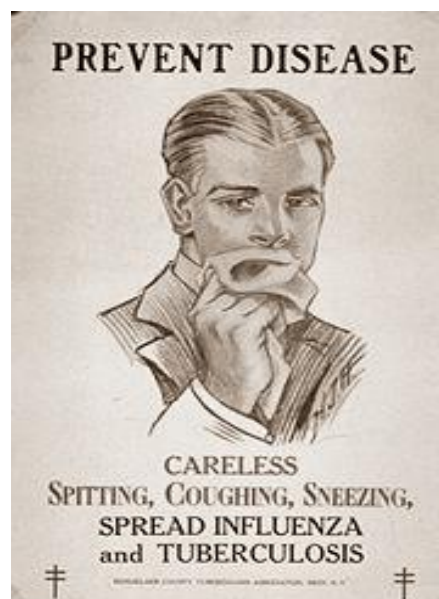
4 C. Fill in the words from the list, then make sentences using the completed phrases.

purity, method, poor, notifiable, sufferers', public, purported, pasteurization, widespread, extract

developed the of quarantine, focus on diets, of the cave air, the process, a glycerine, received acceptance, concern, disease, the benefits, the urban

5 A. Look at the poster. What do you think its message is? Compare it to the message of the poster in exercise 5 B in Unit 1. How much effective do you think public health campaigns are? Are they popular during pandemics?

5 B. Read the text about public health campaigns some other countries had in the past and say whether their experience could be valuable in Ukraine nowadays.



Public health campaigns tried to halt the spread of TB

The **promotion** of **Christmas Seals** began in Denmark during 1904 as a way to raise money for tuberculosis programs. It **expanded** to the United States and Canada in 1907 – 1908 to help the National Tuberculosis Association (later called the American Lung Association).

In the United States, concern about the spread of tuberculosis played a role in the movement to prohibit public spitting except into **spittoons**.

In Europe, deaths from TB fell from 500 out of 100,000 in 1850 to 50 out of 100,000 by 1950. Improvements in public health were reducing tuberculosis even before the arrival of antibiotics, although the disease remained a significant threat to public health, such that when the Medical Research Council was formed in Britain in 1913 its **initial focus** was tuberculosis research.

(From Zunz O.)

5 C. Give explanations to the words in bold and make up sentences with them.

6 A. Read the text and give answers to the following questions:

- a) Which methods of TB treatment were used in the 20th century?*
- b) Is there still any hope that the disease will be completely eliminated in the 21st century?*
- c) Why is the situation aggravating?*
- d) What can help solve the problem?*

Searching for effective treatment

It was not until 1946 with the development of the antibiotic streptomycin that effective treatment and cure became possible. **Prior to** the introduction of this drug, the only treatment besides sanatoria were **surgical interventions**, including the pneumothorax or **plombage technique** – **collapsing** an infected lung to "rest" it and allow lesions to **heal** – a technique that was of little benefit and was largely **discontinued** by the 1950s. The **emergence** of multidrug-resistant TB has again introduced **surgery** as part of the treatment for these infections. Here, **surgical removal** of chest **cavities** will reduce the number of bacteria in the lungs, as well as increasing the exposure of the remaining bacteria to drugs in the bloodstream, and is therefore thought to increase the effectiveness of the **chemotherapy**.

Hopes that the disease could be completely eliminated have been **dashed** since the rise of drug-resistant strains in the 1980s. For example, tuberculosis cases in Britain, numbering around 117,000 in 1913, had fallen to around 5,000 in 1987, but cases rose again, reaching 6,300 in 2000 and 7,600 cases in 2005. Due to the elimination of public health **facilities** in New York and the emergence of HIV, there was a **resurgence** in the late 1980s. The number of those failing to complete their course of drugs is high. New York had to **cope with** more than 20,000 TB patients

with multidrug-resistant strains (resistant to, at least, both Rifampin and Isoniazid). The resurgence of tuberculosis resulted in the declaration of a global health emergency by the World Health Organization in 1993. Every year, nearly half a million new cases of multidrug-resistant tuberculosis (MDR-TB) are estimated to occur worldwide.

Tuberculosis has **co-evolved** with humans for many thousands of years, and perhaps as much as several million years, but the oldest human remains **showing signs** of tuberculosis infection are 9,000 years old. During this evolution, *M. tuberculosis* has lost numerous **coding** and **non-coding regions** in its **genome**, losses that can be used to distinguish between strains of the bacteria. The **implication** is that *M. tuberculosis* strains differ geographically, so their genetic differences can be used to **track the origins** and movement of each strain.

(From Leeming-Latham C.)

6 B. Fill in the table using suitable words.

Noun	Verb
development	
	include
treatment	
	remove

introduction	
	reduce
exposure	
	estimate

6 C. Fill in the correct preposition, then make sentences using the completed phrases.

of, of, to, between, with, for

prior, the elimination, the treatment, to cope, to distinguish, the resurgence tuberculosis

6 D. Fill in the words from the list, then make sentences using the completed phrases.

little, discontinued, course, facilities, removal, emergency, track, treatment

effective, be of benefit, surgical, be largely....., public health, a global health, to the origins, to complete one'sof drugs

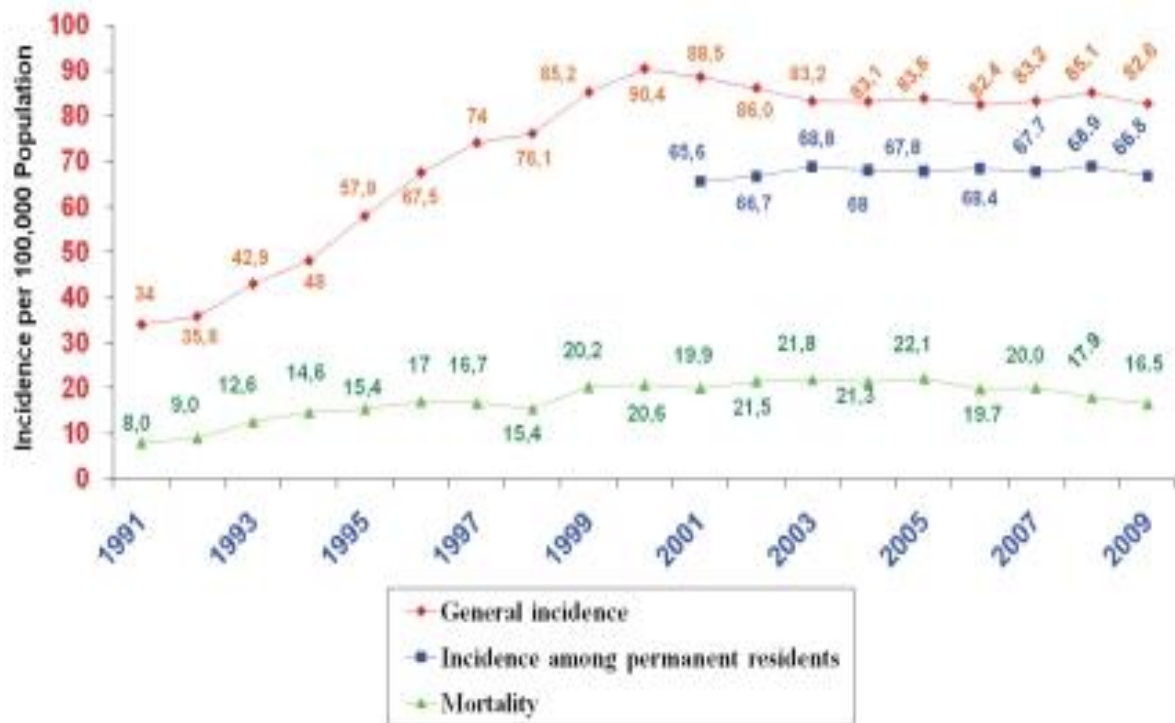
CHAPTER 3. TUBERCULOSIS PANDEMIC IN RUSSIA

1 A. Study the diagram and describe the dynamics of TB incidence and mortality rates in Russia from 2000 till 2009.

1 B. Read the text below and say what it adds to your understanding of the issue.

Facts About Tuberculosis in Russia

With COVID-19 emerging as a global pandemic, attention has centered on **alleviating its effects**. However, this has posed challenges **to combating other respiratory illnesses**, like tuberculosis, due to the lack of control efforts. Russia has been particularly hit by this, where it has **a higher sensitivity to respiratory issues**. To better understand this and the solutions that might be used to fight both COVID-19 and tuberculosis, here are eight facts about tuberculosis in Russia.



Tuberculosis (TB) is endemic, or regularly found, in Russia. In fact, Russia has the world's 11th highest burden of TB. Compounding its status as a major public health problem is a rising incidence of multidrug-resistant TB (MDR-TB). This means that TB does not respond to many of the antibiotics that are most commonly used to treat the disease. Russia has the third highest number of MDR-TB in the world.

The severity of Russia's TB epidemic stems from historical, social and economic factors. When the Soviet Union collapsed, health infrastructure and the economy declined dramatically. Poverty and crime rates increased, leading **to higher incarceration rates**. As TB is airborne, it spreads best in cramped and crowded conditions, just like those in prisons. These factors contributed to the rapid spread of both TB and MDR-TB. The Fall of the Iron Curtain also led to unstable living conditions, increased mass migration and exacerbated the TB epidemic with a 7.5 percent annual increase in new cases from 1991 to 1999.

There is a close synergy between the TB and HIV/AIDS epidemics in Russia. The TB notification rate of individuals living with HIV infection is approximately 1,700 per 100,000 HIV-infected. Because HIV attacks the immune system, HIV

infection leaves patients more vulnerable to infection with all sorts of pathogens, including TB.

In the early to mid-2000s, the Russian government increased its **budget allocation** for tuberculosis control. Russia also received a \$150 million World Bank loan, two thirds of which was designated for tuberculosis. Additionally, it received a \$91 million grant from the Global Fund to Fight AIDS, Tuberculosis and Malaria.

In recent years, there have been some improvements in TB infection rates in Russia. Cases of TB in Russia decreased by 9.4 percent to a rate of 48.3 per 100,000 people in 2017. In the same vein, Russia has recently **experienced a steady decline** in TB morbidity and mortality. Since 2012, morbidity or disability due to TB has decreased by more than 30 percent, and mortality has decreased by more than 48 percent.

The COVID-19 pandemic is interfering with TB diagnosis, prevention, treatment and control efforts worldwide. **It is grimly clear that** Russia will not be exempt. A recent report based on analyses of several countries, including neighboring Ukraine, predicts an additional 6.3 million cases of tuberculosis by 2025 as a result of COVID-19's **disruption of TB control efforts**. Progress in the fight against TB could be set back by five to eight years. Russia is facing its TB epidemic in a world where TB kills 1.5 million people a year, more than any other infectious disease. Five years ago, world leaders pledged to end the TB epidemic by 2030. In addition, in 2018, they pledged to double TB funding by 2022. However, the COVID-19 pandemic's diversion of attention, funding, and resources **makes the realization of these TB goals unlikely**.

Partners in Health, a nongovernmental organization, treats TB and uses a comprehensive model of ambulatory care. They treat every patient free of charge and provide care as it is most convenient to patients, bringing medication to each patient individually twice a day. Their close relationship with patients in this community based model gives their patients **up to a 90 percent cure rate**. Particularly, Partners in Health established The Sputnik Initiative, where it provided social and clinical support for poor MDR-TB patients in Tomsk, Russia. This initiative allowed Partners in Health to treat 70 percent of its total 129 participants who would otherwise not receive adequate medical care.

Partners in Health has success in curbing TB by integrating TB treatment with the provision of other medical care. They have established TB clinics within HIV treatment centers, which is strategic as the HIV and TB co-infection rate among the patients they treat is five percent. Additionally, they have incorporated mental health and drug addiction services into their TB treatment program in Russia. A similar integrative model could conceivably be deployed for COVID-19 once a treatment becomes available.

Tuberculosis and COVID-19 pandemics present unique challenges both individually and as they co-occur. However, existing community based treatment models for tuberculosis in Russia may contain useful lessons.

(From Breier I.)

1 C. Give explanations to the word combinations in bold and make up sentences with them.

2 A. Study the diagram depicting the decline of TB incidence and mortality rates over the period 2010-2021. Read the text below and innumerate the measures that helped to control the disease.

2 B. Give explanations to the word combinations in bold and make up sentences with them.



Tuberculosis incidence and morbidity per 100,000 population in the Russian Federation from 2010 to 2020.

Until 2020, the Russian Federation was among the top 10 **countries with a high burden of tuberculosis**, accounting for 70% of the global burden of the disease; additionally, there was **a constant increase in** drug-resistant tuberculosis and HIV infection. According to the WHO, **the incidence of the disease** in the Russian Federation in 2015 accounted for 35.6% of all cases reported in the WHO European Region, where the reduction of TB is a priority. In recent years, with the support of the government, new molecular genetic methods for diagnosing *M. tuberculosis* deoxyribonucleic acid (DNA), as well as bacteriological methods (BACTEC MGIT), have been introduced in the Russian Federation. Additionally, new protocols have been developed for the treatment of drug-resistant tuberculosis with the use of bedaquiline, linezolid, and thioureidoiminomethylpyridinium perchlorate, all of which have been approved for use. New methods of immunodiagnosics have been introduced (such as testing with a recombinant tuberculosis allergen (Diaskintest®)), ELISPOT, QuantiFERON-TB Gold), and computed tomography has been introduced into the diagnostic protocol.

Taking into account the international situation, there was an increase in the proportion of the **population receiving preventive examinations for** TB; moreover, medical care programs were created to support TB patients, including those infected

with HIV, which led to a decrease in the number of **severe forms of TB** among newly diagnosed patients, as well as **a decrease in morbidity and mortality** from the disease.

The measures against tuberculosis taken in recent years in the Russian Federation were highly effective, and made it possible **to systematically reduce the incidence rate** from 77.2 to 32.4 per 100,000 population from 2017 to 2020, and the mortality rate from 15.4 to 5.1 per 100,000 population.

This progress was also reflected in the reduction in TB incidence among children and adolescents; in 2020, according to the Federal Monitoring Center, this amounted to 6.2 and 12.7 cases per 100,000 people, respectively.

(From Starshinova A, Dovgalyk I.)

3 A. Read the definition of stigma and comment on the poster below. Use the following questions to explain your ideas.

1 How does stigma influence the prevention of HIV and TB?

2 What are the means of reducing stigma and discrimination?

3 What should be done to help people living with HIV and TB?

Social stigma is severe social disapproval of personal characteristics or beliefs that are perceived to be against cultural norms. Stigma is often based on **ignorance**, irrational or unfounded fears, mass hysteria, lack of education, or a lack of information **pertaining** to a particular person or group. Social stigma often leads to **marginalization**. Examples of existing or historical social stigmas include mental illness, physical disabilities and diseases, as well as **illegitimacy**, skin tone or affiliation with a specific nationality, religion (or lack of religion) or being **deemed** to be or proclaiming oneself to be of a certain ethnicity, in any of a myriad of geopolitical and corresponding sociopolitical contexts in various parts of the world.

UN Secretary-General Ban Ki Moon on the occasion of World Tuberculosis Day (24 March 2009) said:

"Stigma remains the single most important barrier to public action. It is a main reason why too many people are afraid to see a doctor to determine whether they have the disease, or to seek treatment if so. It helps make AIDS the silent killer, because people fear the social **disgrace** of speaking about it or taking easily **available** precautions. Stigma is a chief reason why the AIDS epidemic continues to **devastate** societies around the world."

(From Secretary-General's message on World TB Day)

3 B. Fill in the correct preposition, then make sentences using the completed phrases.

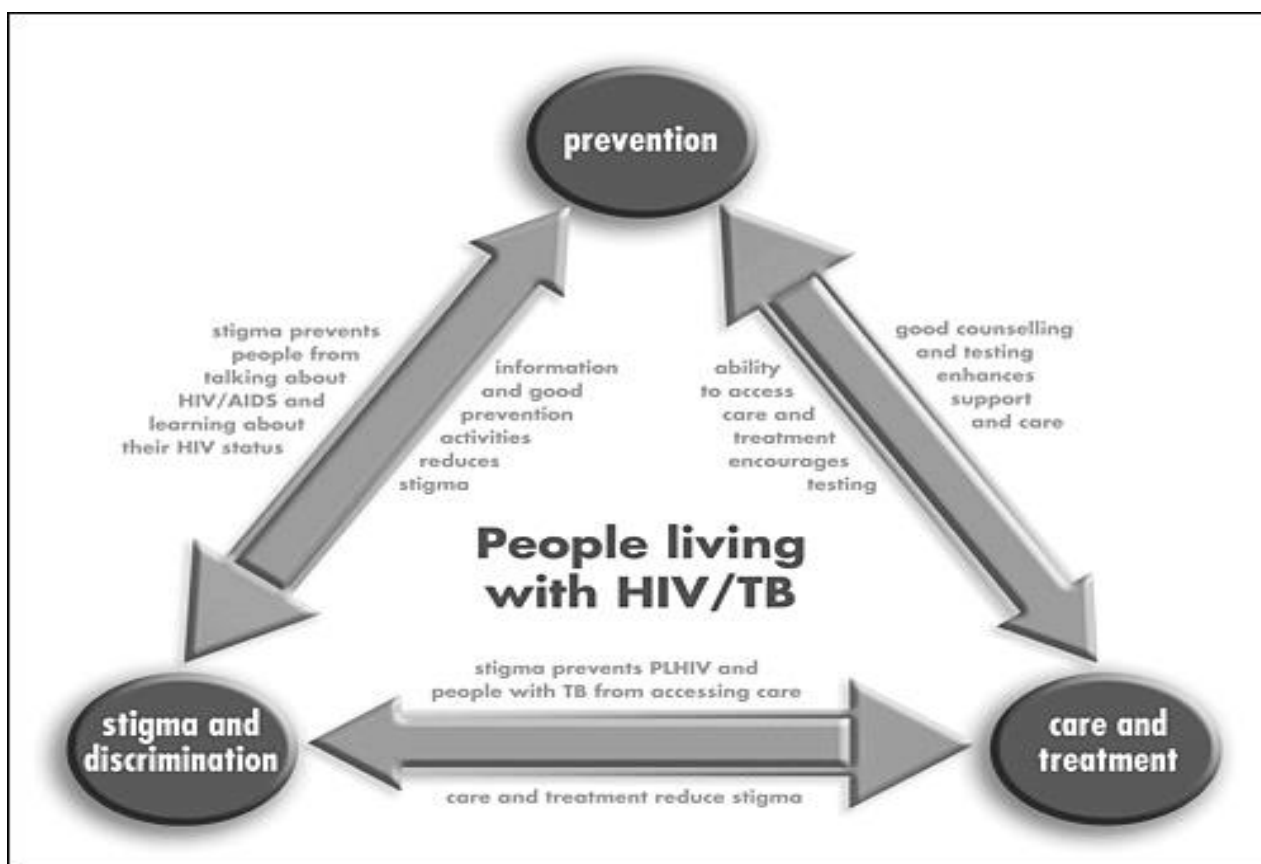
to, to, of, of, against, on, with

disapproval, be cultural norms, be based ignorance, lack education, pertaining a particular person, barrier public action, affiliation a specific nationality

3 C. Fill in the words from the list, then make sentences using the completed phrases.

social, precautions, unfounded, disapproval, mass, action, disabilities, contexts

severe social, irrational or fears, hysteria, physical and diseases, socio-political, public, the disgrace, take



(From WHO consolidated guidelines on tuberculosis)

TRANSLATION SECTION

- 1) Analyse the structural components (headings, subheadings, paragraphs) of the text paying attention to the thematic formation.
- 2) What do you know about the author and his/her intentions?
- 3) Characterize the cohesive content organization of the text.
- 4) Translate the text from English into Russian or from Russian into English.

TEXT 1

Stealth killer

‘World’s most deadly infection’ can be transmitted simply by breathing, scientists warn – as cases rise. Plus, all the signs and symptoms you need to know as UK health officials raise the alarm.

AS tuberculosis makes a comeback in England, a new study has revealed that catching the disease might be easier than we once thought.

Dutch scientists now believe that even people who show no signs of the disease can pass on the killer bug.

Until now, healthcare experts thought TB germs were transmitted via coughing, laughing or speaking, singing or sneezing.

But a new study has found that four in five people testing positive for the killer bug don't suffer from a cough - previously thought to be a key symptom of TB.

However, even those who don't have a cough carry the infectious disease in their spit, which can be spewed into the air when someone talks or breathes, they found.

This means people can pick up the infection just by breathing near someone who has the bug but isn't showing any obvious signs, they said

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This means people can pick up the infection just by breathing near someone who has the bug but isn't showing any obvious signs, they said quarter of those without cough have high loads of dangerous bacteria in their spit and are probably highly infectious.

Professor Frank is now calling for medics to consider new ways of diagnosing the disease so cases are not missed.

"When we take all of these factors into account, it becomes clear that we need to really rethink large aspects of how we identify people with TB," he said.

"It's clear that current practice, especially in the most resource-poor settings, will miss large numbers of patients with TB."

Cases on the rise

Cases of the Victorian disease increased by over 10 per cent last year, according to the UK Health Security Agency - up from 4,380 in 2022 to 4,850 in 2023.

Health chiefs are scrambling to "investigate the reasons" behind this sudden infection rise.

Anyone with a persistent cough and fever, particularly those in groups at a higher risk of catching TB, is being urged not to dismiss their symptoms as a cold.

Globally, 7.5million people were diagnosed with TB in 2022 - the highest number ever recorded.

The World Health Organisation (WHO) previously said this was because many people were unable to get a diagnosis or receive treatment during Covid lockdowns.

(From Shaw I.)

TEXT 2

Новый штамм туберкулеза, который, по сообщениям СМИ, обнаружен в Великобритании, не представляет прямой угрозы для России. Об этом в разговоре с «Известиями» 15 марта заявил директор НИЦ по профилактике и лечению вирусных инфекций, руководитель герпес-центра МНОЦ МГУ, врач иммунолог-аллерголог, инфекционист, к.м.н. Георгий Викулов.

12 марта британская газета The Sun опубликовала статью, в которой говорилось, что в Великобритании зафиксирован стремительный рост заболеваемости туберкулезом. При этом у многих заболевание протекает бессимптомно.

Он отметил, что речь идет о появлении новых штаммов, которые устойчивы к различным современным препаратам.

«То есть это проблема антибиотикорезистентности туберкулеза, которая не является новой, это давняя проблема. Соответственно, сейчас в Великобритании ситуация стала напряженной именно из-за распространения туберкулезной инфекции и увеличения числа новых случаев. Ну и плюс работы европейских коллег, которые показали, что инфекция может передаваться латентно и долгое время не выявляться. То есть, у нее существует определенный скрытый период», — сказал Викулов.

При этом он отметил, что в настоящее время нет никаких предпосылок к тому, что инфекция представляет угрозу для России.

«В России есть санитарный щит, у нас есть инфекционная служба. Наши врачи очень хорошо знакомы с туберкулезной инфекцией, у нас есть отдельное направления — фтизиатрия — которое направленно именно на туберкулезную инфекцию. Есть специалисты-фтизиатры, пульмонологи-фтизиатры, которые занимаются диагностикой, лечением и профилактикой туберкулеза у детей и взрослых. Плюс — у нас проводится иммунопрофилактика туберкулеза», — заявил специалист.

Кроме того, по его словам, Роспотребнадзор и другие профильные ведомства в непрерывном режиме отслеживают появление новых штаммов.

(From Инфекционист оценил угрозу для РФ нового штамма туберкулеза)

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UNIT 3 GLOSSARY

Chapter 1

track n – 1 path, track, course (a line or route along which something travels or moves); "the hurricane demolished houses in its path"; "the track of an animal". 2 lead, track, trail (evidence pointing to a possible solution); "the police are following a promising lead"; "the trail led straight to the perpetrator".

circulatory adj – 1 circulative, circulatory (of or relating to circulation). 2 circulatory (relating to circulatory system or to circulation of the blood).

x-ray n – X ray, X-ray, X-radiation, roentgen ray (electromagnetic radiation of short wavelength produced when high-speed electrons strike a solid target). 2 roentgenogram, X ray, X-ray, X-ray picture, X-ray photograph (a radiogram made by exposing photographic film to X rays; used in medical diagnosis).

x-ray v – examine by taking x-rays.

contagious adj – 1 easily diffused or spread as from one person to another; "a contagious grin". 2 catching, communicable, contractable, transmissible, transmittable ((of disease) capable of being transmitted by infection).

disseminate v – 1 circulate, circularize, circularise, distribute, propagate, broadcast, spread, diffuse, disperse, pass around (cause to become widely known); "spread information"; "circulate a rumor"; "broadcast the news".

entirely adv – 1 wholly, entirely, completely, totally, all, altogether, whole; "he was wholly convinced"; "entirely satisfied with the meal". 2 entirely, exclusively, solely, alone, only (without any others being included or involved) "was entirely to blame"; "a school devoted entirely to the needs of problem children".

eradication n – 1 obliteration (the complete destruction of every trace of something).

extensively adv – in a widespread way; "oxidation ponds are extensively used for sewage treatment in the Midwest".

extrapulmonary adj – not pneumonic, pulmonary, pulmonic (relating to or affecting other organs than lungs).

fatigue n – 1 weariness, tiredness (temporary loss of strength and energy resulting from hard physical or mental work) "he was hospitalized for extreme fatigue". 2 boredom resulting from overexposure to something (always used with a modifier); "he was suffering from museum fatigue"; "after watching TV with her husband she had a bad case of football fatigue"; "the American public is experiencing scandal fatigue"; "political fatigue".

fuel v – 1 provide with a combustible substance that provides energy; "fuel aircraft, ships, and cars". 2 take in fuel, as of a ship; "The tanker fueled in Bahrain". 3 stimulate; "fuel the debate on creationism".

gastrointestinal adj – GI (of or relating to the stomach and intestines) "a gastrointestinal disorder".

genitourinary adj – GU (of or related to the genital and urinary organs or their functions); "genitourinary infections".

site n – 1 land site (the piece of land on which something is located (or is to be located)) "a good site for the school". 2 situation (physical position in relation to the surroundings) "the sites are determined by highly specific sequences of nucleotides".

3 web site, website, internet site, site (a computer connected to the internet that maintains a series of web pages on the World Wide Web) "the Israeli web site was damaged by hostile hackers".

miliary tuberculosis – acute tuberculosis characterized by the appearance of tiny tubercles on one or more organs of the body.

microbiological culture – microbial culture (a method of multiplying microbial organisms by letting them reproduce in predetermined culture).

miniature adj – miniature (being on a very small scale) "a miniature camera".

mycobacteria n – mycobacterium (rod-shaped bacteria some saprophytic or causing diseases).

opportunistic – **1** of, relating to, or being a microorganism that is usually harmless but can become pathogenic when the host's resistance to disease is impaired.

2 of, relating to, or being an infection or disease caused by an opportunistic organism opportunistic infections that kill AIDS patients.

outdated adj – **1** out-of-date, superannuated (old; no longer valid or fashionable); "outdated equipment"; "superannuated laws"; "out-of-date ideas".

overlap v – **1** coincide partially or wholly; "Our vacations overlap". **2** extend over and cover a part of; "The roofs of the houses overlap in this crowded city".

pallor n – lividness, lividity, luridness, paleness, pallidness, wanness, achromasia (unnatural lack of color in the skin (as from bruising or sickness or emotional distress)).

pleura n – the thin serous membrane around the lungs and inner walls of the chest.

pleurisy n – inflammation of two sacs in the chest called the pleura that could produce a hacking cough or sometimes a sharp pain.

productive adj – **1** producing or capable of producing mucus or sputum. **2** forming new tissue, as of an inflammation.

prolonged adj – **1** relatively long in duration; tediously protracted; "a drawn-out argument"; "an extended discussion".

reemerge v – to emerge again, to come into view after having hidden; To come out of a situation, object or a liquid after having entered it.

release v – let go of, let go, relinquish (as from one's grip) "Let go of the door handle, please!"; "relinquish your grip on the rope--you won't fall". **2** free, liberate, unloose, unloosen, loose (grant freedom to; free from confinement). **3** publish, bring out, put out, issue, (prepare and issue for public distribution or sale) "publish a magazine or newspaper". **4** exhaust, discharge, expel, eject, release (eliminate (a substance)) "combustion products are exhausted in the engine"; "the plant releases a gas".

rely on v – **1** trust, swear, bank (have confidence or faith in) "We can trust in God"; "Rely on your friends"; "bank on your good education".

require v – necessitate, ask, postulate, need, take, involve, call for, demand (require as useful, just, or proper) "It takes nerve to do what she did"; "success usually requires hard work". **2** ask, expect (consider obligatory; request and expect); "We require our secretary to be on time"; "Aren't we asking too much of these children?". **3** command, require (make someone do something). **4** want, need, require (have need of) "This piano wants the attention of a competent tuner".

screen – test or examine for the presence of disease or infection; "screen the blood for the HIV virus".

simultaneously **adv** – **1** at the same time (at the same instant); "they spoke simultaneously".

smallpox **n** – an infectious disease unique to humans, caused by either of two virus variants, Variola major and Variola minor; the disease is also known by the Latin names Variola or Variola vera, which is a derivative of the Latin varius, meaning spotted, or varus, meaning "pimple".

spine **n** – **1** spinal column, vertebral column, backbone, back, rachis (the series of vertebrae forming the axis of the skeleton and protecting the spinal cord) "the fall broke his back". **2** backbone (the part of a book's cover that encloses the inner side of the book's pages and that faces outward when the book is shelved) "the title and author were printed on the spine of the book".

setback **v** – reverse: an unfortunate happening that hinders or impedes; something that is thwarting or frustrating.

strain **n** – form, variant, (biology) a group of organisms within a species that differ in trivial ways from similar groups; "a new strain of microorganisms".

upswing **n** – an upward swing; an upward trend or an increase in activity.

Ways Of Transmission

across **adv** – **1** to the opposite side; "the football field was 300 feet across". **2** crosswise, crossways (transversely); "the marble slabs were cut across".

carrier **n** – immune carrier ((medicine) a person (or animal) who has some pathogen to which he is immune but who can pass it on to others).

cease **v** – **1** discontinue, stop, give up, quit, lay off (put an end to a state or an activity); "Quit teasing your little brother". **2** end, stop, finish, terminate, (have an end, in a temporal, spatial, or quantitative sense; either spatial or metaphorical); "My property ends by the bushes"; "The symphony ends in a pianissimo".

compromise **v** – **1** make a compromise; arrive at a compromise; "nobody will get everything he wants; we all must compromise". **2** expose or make liable to danger, suspicion, or disrepute; "The nuclear secrets of the state were compromised by the spy".

congregate **v** – **1** collect into an assembly or assemblage; to assemble; **2** to bring into one place, or into a united body; to gather together; to mass; to compact.

congregate **adj** – collected; compact; close.

setting **n** – the state of the environment in which a situation exists; "you can't do that in a university setting".

contracting **n** – catching, becoming infected; "catching cold is sometimes unavoidable"; "the contracting of a serious illness can be financially catastrophic".

distribution **n** – **1** dispersion (the spatial or geographic property of being scattered about over a range, area, or volume) "worldwide in distribution"; "the distribution of nerve fibers"; "in complementary distribution". **2** the act of distributing or spreading or apportioning.

droplet **n** – a tiny drop.

expel v – throw out, kick out, force to leave or move out); "He was expelled from his native country". **2** oust, throw out, drum out, boot out, kick out, expel (remove from a position or office) "The chairman was ousted after he misappropriated funds". **3** exhaust, discharge, eject, release (eliminate (a substance)) "combustion products are exhausted in the engine"; "the plant releases a gas".

exposure n – **1** the fact or condition of being exposed; the condition of being unprotected especially from severe weather exposure after becoming lost during the snowstorm; the condition of being subject to some detrimental effect or harmful condition exposure to bronchial irritants; exposure to the flu. **2** the act or an instance of exposing.

immunocompromised adj – unable to develop a normal immune response usually because of malnutrition or immunodeficiency or immunosuppressive therapy.

immunosuppressive drug n – immunosuppressant, immunosuppressor, immunosuppressive drug, immunosuppressive, immune suppressant drug (a drug that lowers the body's normal immune response).

intense adj – acute: extremely sharp; "acute pain"; "felt acute annoyance"; "intense itching and burning".

low-income – poverty (the shortage of common things such as food, clothing, shelter and safe drinking water, all of which determine the quality of life).

Mycobacterium bovis – a slow-growing (16 to 20 hour generation time) aerobic bacterium and the causative agent of tuberculosis in cattle.

abuse n – improper use or handling, as of a drug; misuse.

under-served – underresourced, not having sufficient service; In regard to health services, refers to populations which are disadvantaged.

uniform adj – **1** unvarying (always the same; showing a single form or character in all occurrences) "a street of uniform tall white buildings". **2** consistent (the same throughout in structure or composition); "bituminous coal is often treated as a consistent and homogeneous product". **3** undifferentiated (not differentiated). **4** evenly spaced; "at regular (or uniform) intervals".

unsanitary adj – insanitary, unhealthful (not sanitary or healthful); "unsanitary open sewers"; "grim and unsanitary conditions".

virulence n – **1** virulency (extreme harmfulness (as the capacity of a microorganism to cause disease)) "the virulence of the plague". **2** virulency (extreme hostility) "the virulence of the malicious old man".

Infection Of Other Animals

badger n – **1** Wisconsinite, Badger (a native or resident of Wisconsin). **2** sturdy carnivorous burrowing mammal with strong claws; widely distributed in the northern hemisphere.

possum n – **1** opossum (nocturnal arboreal marsupial having a naked prehensile tail found from southern North America to northern South America).

cite v – **1** mention: make reference to; "His name was mentioned in connection with the invention". **2** mention: commend; "he was cited for his outstanding achievements". **3** reference refer to; "he referenced his colleagues' work".

contentious adj – 1 combative, disputatious, disputative, litigious (inclined or showing an inclination to dispute or disagree, even to engage in law suits) "a style described as abrasive and contentious"; "a disputatious lawyer"; "a litigious and acrimonious spirit". 2 contentious (involving or likely to cause controversy); "a central and contentious element of the book."

cull v – 1 remove something that has been rejected; "cull the sick members of the herd". 2 pick: look for and gather; "pick mushrooms"; "pick flowers".

domesticated adj – 1 domestic, (converted or adapted to domestic use); "domestic animals"; "domesticated plants like maize". 2 accustomed to home life; "some men think it unmanly to be domesticated; others find gratification in it".

eradication n – 1 obliteration (the complete destruction of every trace of something).

herd n – 1 a group of cattle or sheep or other domestic mammals all of the same kind that are herded by humans. 2 a group of wild mammals of one species that remain together: antelope or elephants or seals or whales or zebra.

livestock n – stock, farm animal (any animals kept for use or profit).

mount v – put on (prepare and supply with the necessary equipment for execution or performance) "mount a theater production"; "mount an attack"; "mount a play".

opponent n – 1 opposition: a contestant that you are matched against. 2 adversary: someone who offers opposition.

proponent n – advocate, advocator, exponent (a person who pleads for a cause or propounds an idea).

surveillance n – close observation of a person or group (usually by the police).

underway adj – afoot, (currently in progress) "there is mischief afoot"; "plans are afoot"; "preparations for the trial are underway".

vector n – 1 transmitter (any agent (person or animal or microorganism) that carries and transmits a disease); "mosquitos are vectors of malaria and yellow fever"; "when medical scientists talk about vectors they are usually talking about insects". 2 (genetics) a virus or other agent that is used to deliver DNA to a cell.

Prevention

along with – together with, in association with; "For his second birthday we sent him a fireman's hat, along with some books", or "The audience was invited to sing along with the star".

approach n – 1 attack, plan of attack (ideas or actions intended to deal with a problem or situation); "his approach to every problem is to draw up a list of pros and cons"; "an attack on inflation"; "his plan of attack was misguided". 2 approaching, coming (the act of drawing spatially closer to something); "the hunter's approach scattered the geese". 3 access (a way of entering or leaving); "he took a wrong turn on the access to the bridge"

causal adj – involving or constituting a cause; causing; "a causal relationship between scarcity and higher prices".

declare v – 1 state emphatically and authoritatively; "He declared that he needed more money to carry out the task he was charged with". 2 announce, announce publicly or officially; "The President declared war".

deficiency n – 1 lack, want (the state of needing something that is absent or unavailable) "there is a serious lack of insight into the problem"; "water is the critical deficiency in desert regions". 2 insufficiency, inadequacy (lack of an adequate quantity or number); "the inadequacy of unemployment benefits".

identification n – 1 designation (the act of designating or identifying something). 2 evidence of identity; something that identifies a person or thing. 3 the condition of having the identity (of a person or object) established; "the thief's identification was followed quickly by his arrest". 4 recognition (the process of recognizing something or someone by remembering); "a politician whose recall of names was as remarkable as his recognition of faces". 5 the attribution to yourself (consciously or unconsciously) of the characteristics of another person (or group of persons).

malnutrition n – a state of poor nutrition; can result from insufficient or excessive or unbalanced diet or from inability to absorb foods.

micronutrient – a mineral, vitamin or other substance that is essential, even in very small quantities, for growth or metabolism.

modulate v – regulate, fix or adjust the time, amount, degree, or rate of; "regulate the temperature".

overcrowding adj – overcrowded, containing too many occupants for an area of its size.

renal disease – any disease or disorder that affects the kidneys.

subcontinent n – a large and distinctive landmass (as India or Greenland) that is a distinct part of some continent.

susceptible adj – 1 (often followed by `of' or `to') yielding readily to or capable of; "susceptible to colds". 2 easily impressed emotionally.

vaccinate v – immunize: perform vaccinations or produce immunity in by inoculation; "We vaccinate against scarlet fever"; "The nurse vaccinated the children in ..."

Vaccines

account for – be the reason or explanation for; "The recession accounts for the slow retail business".

adjuvant adj – 1 accessory, adjunct, ancillary, appurtenant, auxiliary (furnishing added support) "an ancillary pump"; "an adjuvant discipline to forms of mysticism"; "The mind and emotions are auxiliary to each other". 2 enhancing the action of a medical treatment; "the adjuvant action of certain bacteria".

administer v – dispense (give or apply (medications)).

efficacy – ability to produce a desired amount of a desired effect.

entire adj –full, total (constituting the full quantity or extent; complete); "an entire town devastated by an earthquake"; "gave full attention".

Chest photofluorography – photofluorography (sometimes called just fluorography) is photography of X-ray images from fluorescent screen; it is commonly used in some countries for chest X-ray screening, e.g. to diagnose tuberculosis or lung cancer.

continually adv – seemingly without interruption; "complained continually that there wasn't enough money".

conventional adj – following accepted customs and proprieties; "conventional wisdom"; "conventional forms of address".

disease burden – the impact of a health problem in an area measured by financial cost, mortality, morbidity, or other indicators.

endemic – of or relating to a disease (or anything resembling a disease) constantly present to greater or lesser extent in a particular locality. **2** native to or confined to a certain region; "the islands have a number of interesting endemic species".

implement v – **1** apply in a manner consistent with its purpose or design; "implement a procedure". **2** enforce, implement (ensure observance of laws and rules; "Apply the rules to everyone".

Mantoux tuberculin skin test – is a diagnostic tool for tuberculosis; it is one of the two major tuberculin skin tests used in the world, largely replacing multiple-puncture tests such as the Tine test. Until 2005, the Heaf test was used in the United Kingdom, but the Mantoux test is now used. The Mantoux test is also used in Australia, Canada, Hungary, Poland, The Netherlands, Spain, Portugal, South Africa and the United States and is endorsed by the American Thoracic Society and Centers for Disease Control and Prevention (CDC). It was also used in the USSR and is now prevalent in most of the former Soviet states.

skin test – any test to determine immunity or sensitivity to a disease by introducing small amounts on or into the skin.

commitment n – **1** committedness: the trait of sincere and steadfast fixity of purpose; "a man of energy and commitment". **2** the act of binding yourself (intellectually or emotionally) to a course of action; "his long commitment to public service"; "they felt no loyalty to a losing team". **3** an engagement by contract involving financial obligation; "his business commitments took him to London".

criterion n – standard: a basis for comparison; a reference point against which other things can be evaluated; "the schools comply with federal standards".

phase n – stage (any distinct time period in a sequence of events) "we are in a transitional stage in which many former ideas must be revised or rejected".

trial n – test, run (the act of testing something) "in the experimental trials the amount of carbon was measured separately".

pipeline n – grapevine, pipeline, word of mouth (gossip spread by spoken communication) "the news of their affair was spread by word of mouth".

precaution n – safeguard, guard (a precautionary measure warding off impending danger or damage or injury etc.) "he put an ice pack on the injury as a precaution"; "an insurance policy is a good safeguard"; "we let our guard down".

preferable adj – preferred (more desirable than another) "coffee is preferable to tea"; "Danny's preferred name is `Dan'".

prevalence – (epidemiology) the ratio (for a given time period) of the number of occurrences of a disease or event to the number of units at risk in the population.

prevalent adj – prevailing, predominant, dominant, rife (most frequent or common) "prevailing winds".

efficacy n – efficaciousness (capacity or power to produce a desired effect) "concern about the safety and efficacy of the vaccine".

provide v – give what is desired or needed, especially support, food or sustenance; "The hostess provided lunch for all the guests".

recombinant n – 1 a cell or organism in which genetic recombination has occurred. 2 of or relating to recombinant DNA.

setting n – the context and environment in which something is set; "the perfect setting for a ghost story".

severe adj – 1 dangerous, grave, grievous, serious, life-threatening (causing fear or anxiety by threatening great harm); "a dangerous operation"; "a grave situation"; "a grave illness"; "grievous bodily harm"; "a serious wound"; "a serious turn of events"; "a severe case of pneumonia"; "a life-threatening disease". 2 severe (very bad in degree or extent); "a severe worldwide depression"; "the house suffered severe damage".

subunit vaccines – vaccines that contain only a part of the target microorganism.

unreliable adj – not worthy of reliance or trust; "in the early 1950s computers were large and expensive and unreliable"; "an undependable assistant".

urgent adj – pressing: compelling immediate action; "too pressing to permit of longer delay"; "the urgent words 'Hurry! Hurry! ...

variable adj – 1 liable to or capable of change; "rainfall in the tropics is notoriously variable"; "variable winds". 2 varying, marked by diversity or difference; "the varying angles of roof slope"; "nature is infinitely variable". 3 (used of a device) designed so that a property (as e.g. light) can be varied; "variable filters in front of the mercury xenon lights".

Treatment

antibiotic resistance – the ability of a microorganism to withstand the effects of antibiotics. It is a specific type of drug resistance.

eliminate v – 1 extinguish, get rid of, do away with (terminate, end, or take out); "Let's eliminate the course on Akkadian hieroglyphics"; "Socialism extinguished these archaic customs"; "eliminate my debts". 2 annihilate, extinguish, eradicate, wipe out, decimate, carry off (kill in large numbers); "the plague wiped out an entire population".

entirely adv – wholly, completely, totally, all, altogether, whole (to a complete degree or to the full or entire extent ('whole' is often used informally for 'wholly')); "he was wholly convinced"; "entirely satisfied with the meal".

extensively adv – in an extensive manner; having great range; having wide breadth and depth.

inadequate adj – 1 unequal (lacking the requisite qualities or resources to meet a task); "inadequate training"; "the staff was inadequate". 2 poor, short (not sufficient to meet a need); "an inadequate income"; "a poor salary"; "money is short".

isoniazid n – INH, Nydrazid (antibacterial drug (trade name Nydrazid) used to treat tuberculosis).

issue n – 1 an important question that is in dispute and must be settled; "politicians never discuss the real issues". 2 number (one of a series published periodically); "she found an old issue of the magazine in her dentist's waiting room". 3 topic, subject, matter (some situation or event that is thought about); "he kept drifting off the topic".

injury n – **1** any physical damage to the body caused by violence or accident or fracture etc. **2** wound: a casualty to military personnel resulting from combat. **3** an act that causes someone or something to receive physical damage.

neglected adj – **1** ignored, unheeded (disregarded); "his cries were unheeded"; "her ignored advice". **2** unattended (lacking a caretaker) "a neglected child".

notified v – advise, give notice, send word, apprise, apprize (inform (somebody) of something); "I advised him that the rent was due".

occur v – happen, hap, go on, pass off, pass, fall out, come about, take place (come to pass); "What is happening?"; "Nothing occurred that seemed important". **2** come (come to one's mind; suggest itself); "It occurred to me that we should hire another secretary"; "A great idea then came to her". **3** to be found to exist; "sexism occurs in many workplaces".

prescribed adj – **1** set down as a rule or guide. **2** appointed: fixed or established especially by order or command; "at the time appointed (or the appointed time)". **3** official: conforming to set usage, procedure, or discipline; "in prescribed order".

regimen – (medicine) a systematic plan for therapy (often including diet).

progress v – **1** come on, come along, advance, get on, get along, shape up (develop in a positive way); "He progressed well in school"; "My plants are coming along"; "Plans are shaping up". **2** advance, pass on, move on, march on, go on (move forward, also in the metaphorical sense); "Time marches on". **3** build up, work up, build (form or accumulate steadily); "Resistance to the manager's plan built up quickly"; "Pressure is building up at the Indian-Pakistani border".

promising adj – showing possibility of achievement or excellence; "a promising young man".

reduce v – **1** cut down, cut back, trim, trim down, trim back, cut, bring down (cut down on; make a reduction in); "reduce your daily fat intake"; "The employer wants to cut back health benefits". **2** make less complex; "reduce a problem to a single question". **3** bring to humbler or weaker state or condition; "He reduced the population to slavery".

revised adj – **1** improved or brought up to date; "a revised edition". **2** altered or revised by rephrasing or by adding or deleting material; "the amended bill passed easily".

rifampicin – Rifampicin (INN) or rifampin (USAN) is a bactericidal antibiotic drug of the rifamycin group.

risk-free – thought to be devoid of risk.

treatment n – **1** treatment, intervention (care provided to improve a situation (especially medical procedures or applications that are intended to relieve illness or injury)). **2** handling (the management of someone or something); "the handling of prisoners"; "the treatment of water sewage"; "the right to equal treatment in the criminal justice system".

Prognosis

dormant adj – **1** hibernating, torpid (in a condition of biological rest or suspended animation); "dormant buds"; "a hibernating bear"; "torpid frogs". **2** inactive ((of e.g. volcanos) not erupting and not extinct); "a dormant volcano". **3** sleeping (lying with

head on paws as if sleeping). **4** abeyant (inactive but capable of becoming active); "her feelings of affection are dormant but easily awakened".

immunosuppression n – lowering the body's normal immune response to invasion by foreign substances; can be deliberate (as in lowering the immune response to prevent rejection of a transplanted organ) or incidental (as a side effect of radiotherapy or chemotherapy for cancer).

incidence n – **1** the relative frequency of occurrence of something.

obvious adj – easily perceived by the senses or grasped by the mind; "obvious errors".

overcome v – **1** get the better of, defeat (win a victory over); "You must overcome all difficulties"; "defeat your enemies". **2** get over, subdue, surmount, master (get on top of; deal with successfully); "He overcame his shyness".

primary disease – disease of poverty.

progression n – **1** patterned advance (a series with a definite pattern of advance). **2** progress, advance (a movement forward); "he listened for the progress of the troops". **3** progress, procession, advance, advancement, forward motion, onward motion (the act of moving forward (as toward a goal).

spread n – **1** spreading (process or result of distributing or extending over a wide expanse of space). **2** spread (a conspicuous disparity or difference as between two figures); "gap between income and outgo"; "the spread between lending and borrowing costs".

Chapter 2

History

abdomen n – **1** venter, stomach, belly (the region of the body of a vertebrate between the thorax and the pelvis). **2** abdominal cavity (the cavity containing the major viscera; in mammals it is separated from the thorax by the diaphragm).

antiquity n – **1** the historic period preceding the Middle Ages in Europe. **2** ancientness (extreme oldness). **3** an artifact surviving from the past.

bison n - any of several large humped bovids having shaggy manes and large heads and short horns.

circa prep – about (with dates); born circa 150 BC.

consume v – **1** devour, down, go through (eat immoderately); "Some people can down a pound of meat in the course of one meal". **2** ingest, take in, take, have (serve oneself to, or consume regularly); "Have another bowl of chicken soup!"; "I don't take sugar in my coffee". **3** squander, waste, waste (spend extravagantly) "waste not, want not". **4** destroy completely; "The fire consumed the building". **5** eat up, use up, eat, deplete, exhaust, run through, wipe out (use up (resources or materials); "this car consumes a lot of gas"; "We exhausted our savings".

consumption n – **1** ingestion, intake, uptake (the process of taking food into the body through the mouth (as by eating)). **2** pulmonary tuberculosis, phthisis, wasting disease, white plague (involving the lungs with progressive wasting of the body). **3** economic consumption, use, use, use of goods and services ((economics) the utilization of economic goods to satisfy needs or in manufacturing); "the

consumption of energy has increased steadily". **4** using up, expenditure (the act of consuming something).

currently adv - presently, at this time or period; now "he is presently our ambassador to the United Nations"; "currently they live in Connecticut".

decay n – **1** the process of gradually becoming inferior. **2** decline (a gradual decrease; as of stored charge or current). **3** decomposition (the organic phenomenon of rotting). **4** an inferior state resulting from the process of decaying; "the corpse was in an advanced state of decay".

descend v – **1** fall, go down, come down (move downward and lower, but not necessarily all the way); "The temperature is going down"; "The barometer is falling"; "The curtain fell on the diva"; "Her hand went up and then fell again". **2** derive, come, come from; be connected by a relationship of blood, for example; "She was descended from an old Italian noble family"; "he comes from humble origins".

detection – the perception that something has occurred or some state exists; "early detection can often lead to a cure".

disseminated – spread around; widespread; spread over a wide area of the body or of an organ

diverge v – **1** move or draw apart; "The two paths diverge here". **2** have no limits as a mathematical series. **3** extend in a different direction; "The lines start to diverge here"; "Their interests diverged". **4** deviate, vary, depart (be at variance with; be out of line with).

evolve v – **1** germinate, develop (work out); "We have developed a new theory of evolution". **2** undergo development or evolution; "Modern man evolved a long time ago". **3** develop, acquire, (gain through experience); "I acquired a strong aversion to television".

within adv – inside (on the inside); "inside, the car is a mess".

involve v – **1** affect, regard (connect closely and often incriminatingly) "This new ruling affects your business". **2** engage as a participant; "Don't involve me in your family affairs!" **3** imply (have as a necessary feature); "This decision involves many changes".

lesion n – **1** wound: an injury to living tissue (especially an injury involving a cut or break in the skin). **2** any abnormal tissue found on or in an organism, usually damaged by disease or trauma.

lupus vulgaris – tuberculosis of the skin; appears first on the face and heals slowly leaving deep scars.

millet – any of various small-grained annual cereal and forage grasses of the genera Panicum, Echinochloa, Setaria, Sorghum, and Eleusine

mummy n – **1** ma, mama, mamma, mom, momma, mommy, mammy, mum, mummy (informal terms for a mother). **2** mummy (a body embalmed and dried and wrapped for burial (as in ancient Egypt)).

gland n – an organ in an animal's body that synthesizes a substance for release such as hormones or breast milk, often into the bloodstream.

originate v – **1** arise, rise, develop, uprise, spring up, grow (come into existence; take on form or shape) "A new religious movement originated in that country". **2** initiate,

start (bring into being) "He initiated a new program"; "Start a foundation". **3** begin a trip at a certain point, as of a plane, train, bus, etc. "The flight originates in Calcutta".
the Paracas-Caverna culture – an important Andean society between approximately 600 BCE and 175 BCE, with an extensive knowledge of irrigation and water management. It developed in the Paracas Peninsula, located in what today is the Paracas District of the Pisco Province in the Ica Region. Most of our information about the lives of the Paracas people comes from excavations at the large seaside Paracas necropolis, first investigated by the Peruvian archaeologist Julio Tello in the 1920s.

pallor n – lividness, lividity, luridness, paleness, pallidness, wanness, achromasia (unnatural lack of color in the skin (as from bruising or sickness or emotional distress)).

phthisis n – pulmonary tuberculosis, consumption, wasting disease, white plague (involving the lungs with progressive wasting of the body).

relentless – persistent: never-ceasing; "the relentless beat of the drums".

wasting n – **1** cachexia: any general reduction in vitality and strength of body and mind resulting from a debilitating chronic disease. **2** atrophy: a decrease in size of an organ caused by disease or disuse. **3** In medicine, wasting refers to the process by which a debilitating disease causes muscle and fat tissue to "waste" away.

remains n – **1** any object that is left unused or still extant; "I threw out the remains of my dinner". **2** cadaver, corpse, stiff, clay, remains (the dead body of a human being); "the cadaver was intended for dissection"; "the end of the police search was the discovery of a corpse".

swollen adj – conceited, egotistic, egotistical, self-conceited, swollen-headed, vain (characteristic of false pride; having an exaggerated sense of self-importance) "a conceited fool"; "an attitude of self-conceited arrogance".

unambiguous adj – **1** having or exhibiting a single clearly defined meaning; "As a horror, apartheid...is absolutely unambiguous"- Mario Vargas Llosa. **2** unequivocal, univocal (admitting of no doubt or misunderstanding; having only one meaning or interpretation and leading to only one conclusion) "unequivocal evidence".

widespread adj – **1** widely circulated or diffused; "a widespread doctrine"; "widespread fear of nuclear war". **2** far-flung, distributed over a considerable extent; "far-flung trading operations"; "the West's far-flung mountain ranges".

Folklore

attend v – **1** go to, be present at (meetings, church services, university); "She attends class regularly". **2** take care, look, see (take charge of or deal with); "Could you see about lunch?"; "I must attend to this matter"; "She took care of this business". **3** to accompany as a circumstance or follow as a result; "Menuhin's playing was attended by a 15-minute standing ovation".

attribute v – **1** impute, ascribe, assign, credit to; "We attributed this quotation to Shakespeare"; "People impute great cleverness to cats". **2** assign, decide as to where something belongs in a scheme; "The biologist assigned the mushroom to the proper class".

creativity n - creativeness, creative thinking (the ability to create).

drain v – **1** run out (flow off gradually); "The rain water drains into this big vat". **2** deplete of resources) "The exercise class drains me of energy". **3** empty of liquid; drain the liquid from) "We drained the oil tank". **4** enfeeble, debilitate, make weak; "Life in the camp drained him".

exhibit v – **1** show an attribute, property, knowledge, or skill; "he exhibits a great talent". **2** expose: to show, make visible or apparent; "The Metropolitan Museum is exhibiting Goya's works this month". **3** show: give an exhibition of to an interested audience; "She shows her dogs frequently".

fairy n – **1** faery, faerie, fay, sprite (a small being, human in form, playful and having magical powers). **2** fagot, faggot, fag, fairy, nance, pansy, queen, queer, poof, poove, pouf (offensive term for an openly homosexual man).

furthermore adv – moreover, what is more (in addition) "computer chess games are getting cheaper all the time; furthermore, their quality is improving"; "the cellar was dark; moreover, mice nested there"; "what is more, there's no sign of a change".

hag n – an ugly evil-looking disease old woman.

hagridden adj – tormented (tormented or harassed by nightmares or unreasonable fears); "hagridden...by visions of an imminent heaven or hell upon earth" – C.S.Lewis

original adj – preceding all others in time or being as first made or performed; "the original inhabitants of the Americas".

regard v – **1** see, consider, reckon, view, deem to be; "She views this quite differently from me"; "I consider her to be shallow". **2** consider (look at attentively).

revel n – revelry (unrestrained merrymaking).

similarly adv – **1** like or similar manner; "He was similarly affected"; "some people have little power to do good. **2** in a like style or manner.

suck v – **1** draw into the mouth by creating a practical vacuum in the mouth; "suck the poison from the place where the snake bit"; "suck on a straw"; "the baby sucked on the mother's breast". **2** draw something in by or as if by a vacuum; "Mud was sucking at her feet". **3** suck in (attract by using an inexorable force, inducement, etc.); "The current boom in the economy sucked many workers in from abroad". **4** be inadequate or objectionable; "this sucks!"

afflicted adj – **1** stricken (grievously affected especially by disease). **2** impaired (mentally or physically unfit).

replenish v – fill something that had previously been emptied; "refill my glass, please".

the Industrial Revolution – a period in the late 18th and early 19th centuries when major changes in agriculture, manufacturing, mining, and transport had a profound effect on the socioeconomic and cultural conditions in Great Britain. The changes subsequently spread throughout Europe, North America, and eventually the world. The onset of the Industrial Revolution marked a major turning point in human society; almost every aspect of daily life was eventually influenced in some way.

trait n – a distinguishing feature of your personal nature.

waste v – **1** spend thoughtlessly; throw away; "He wasted his inheritance on his insincere friends". **2** use inefficiently or inappropriately; "waste heat". **3** get rid of; "We waste the dirty water by channeling it into the sewer".

Study And Treatment

association n – **1** a formal organization of people or groups of people; "he joined the Modern Language Association". **2** the act of consorting with or joining with others; "you cannot be convicted of criminal guilt by association". **3** the state of being connected together as in memory or imagination; "his association of his father with being beaten was too strong to break".

attenuated bovine-strain tuberculosis – attenuation in microbiology is reducing the virulence of a pathogen, whilst keeping it viable (or 'live'), for the purpose of creating a vaccine. It is the counterpart of the vaccines produced by 'killing' the virus (inactivated vaccine).

broth n – **1** liquid in which meat and vegetables are simmered; used as a basis for e.g. soups or sauces; "she made gravy with a base of beef stock". **2** a thin soup of meat or fish or vegetable stock.

cavity n – **1** pit: a sizeable hole (usually in the ground); "they dug a pit to bury the body". **2** space that is surrounded by something. **3** soft decayed area in a tooth; progressive decay can lead to the death of a tooth.

chemotherapy n – **1** the use of chemical agents to treat or control disease (or mental illness). **2** Chemotherapy, in its most general sense, refers to treatment of disease by chemicals that kill cells, both good and bad, but specifically those of micro-organisms or cancer.

Christmas Seals – labels placed on mail during the Christmas season to raise funds and awareness for charitable programs.

collapse an infected lung – **1** break down, literally or metaphorically; "The wall collapsed"; "The business collapsed". **2** break down: collapse due to fatigue, an illness, or a sudden attack. **3** fold or close up; "fold up your umbrella"; "collapse the music stand".

cope with v – meet: satisfy or fulfill; "meet a need"; "this job doesn't match my dreams".

dash v – **1** dart: run or move very quickly or hastily; "She dashed into the yard". **2** distinctive and stylish elegance; "he wooed her with the confident dash of a cavalry officer". **3** smash: break into pieces, as by striking or knocking over; "Smash a plate".

date back v – go back: belong to an earlier time; "This story dates back 200 years".

delay v – **1** cause to be slowed down or delayed; "Traffic was delayed by the bad weather"; "she delayed the work that she didn't want to perform". **2** act later than planned, scheduled, or required; "Don't delay your application to graduate school or else it won't be considered".

diabetes n – a polygenic disease characterized by abnormally high glucose levels in the blood; any of several metabolic disorders marked by excessive urination.

discontinue v – **1** put an end to a state or an activity; "Quit teasing your little brother". **2** come to or be at an end; "the support from our sponsoring agency will discontinue after March 31". **3** break: prevent completion; "stop the project"; "break off the negotiations".

due to prep – caused by; resulting from.

eliminate v – extinguish, get rid of, do away with (terminate, end, or take out); "Let's eliminate the course on Akkadian hieroglyphics"; "Socialism extinguished these archaic customs"; "eliminate my debts".

endemic n – **1** endemic disease (a disease that is constantly present to a greater or lesser degree in people of a certain class or in people living in a particular location).

establishment – **establish** - prove: establish the validity of something, as by an example, explanation or experiment; "The experiment demonstrated the instability of the compound"; "The mathematician showed the validity of the conjecture".

estimate n – **1** an approximate calculation of quantity or degree or worth; "an estimate of what it would cost"; "a rough idea how long it would take". **2** a judgment of the qualities of something or somebody; "many factors are involved in any estimate of human life"; "in my estimation the boy is innocent". **3** appraisal: a document appraising the value of something (as for insurance or taxation).

expand v – **1** extend in one or more directions; "The dough expands". **2** become larger in size or volume or quantity; "his business expanded rapidly". **3** make bigger or wider in size, volume, or quantity; "expand the house by adding another wing".

genuine adj – **1** not fake or counterfeit; "a genuine Picasso"; "genuine leather". **2** not pretended; sincerely felt or expressed; "genuine emotion"; "her interest in people was unfeigned"; "true grief".

glycerine n – glycerol is a chemical compound also commonly called glycerin or glycerine; it is a colorless, odorless, viscous liquid that is widely used.

extract n – **1** that which has been extracted; "beef extract". **2** passage extracted; "extracts from a long poem".

extract v – **1** remove, usually with some force or effort; also used in an abstract sense; "pull weeds"; "extract a bad tooth". **2** get despite difficulties or obstacles; "I extracted a promise from the Dean for two new positions". **3** educe: deduce (a principle) or construe (a meaning); "We drew out some interesting linguistic data from the native informant".

halt v – **1** hold, arrest (cause to stop); "Halt the engines"; "Arrest the progress"; "halt the presses". **2** stop (come to a halt, stop moving); "the car stopped"; "She stopped in front of a store window". **3** stop, block, kibosh (stop from happening or developing) "Block his election"; "Halt the process".

heal v – **1** mend, recover; "My broken leg is mending". **2** get healthy again; "The wound is healing slowly". **3** bring around, cure (provide a cure for, make healthy again); "The treatment cured the boy's acne"; "The quack pretended to heal patients but never managed to".

facility n – **1** installation (a building or place that provides a particular service or is used for a particular industry) "the assembly plant is an enormous facility". **2** adeptness, adroitness, deftness, facility, quickness (skillful performance or ability without difficulty) "his quick adeptness was a product of good design"; "he was famous for his facility as an archer".

focus n – the concentration of attention or energy on something; "the focus of activity shifted to molecular biology"; "he had no direction in his life".

gauze n – **1** (medicine) bleached cotton cloth of plain weave used for bandages and dressings. **2** a net of transparent fabric with a loose open weave.

lard n – soft white semisolid fat obtained by rendering the fatty tissue of the hog.

sow n – an adult female hog.

Mammoth Cave

notifiable adj – requiring that official notification be given; "a notifiable disease".

offer v – make available or accessible, provide or furnish; "The conference center offers a health spa"; "The hotel offers private meeting rooms".

pasteurization n – partial sterilization of foods at a temperature that destroys harmful microorganisms without major changes in the chemistry of the food.

plombage technique – a surgical method used prior to the introduction of anti-tuberculosis drug therapy to treat cavitory tuberculosis of the upper lobe of the lung. The term derives from the Latin word "plumbum" (lead) and refers to the insertion of an inert substance in the pleural space. The underlying theory of plombage treatment was the belief that if the diseased lobe of the lung was physically forced to collapse, it would heal quickly. There were positive results in tuberculosis therapy following plombage in the decades of the 1930s, 40s and early-50s. However, with the introduction of drugs which were effective in destroying the tuberculosis bacterium (*Mycobacterium tuberculosis*), plombage treatment fell into disfavor. In addition, complications of plombage began to appear in patients who had been so treated. The technique involved surgically creating a cavity underneath the ribs in the upper part of the chest wall and filling this space with some inert material. A variety of substances were typically used and included air, olive or mineral oil, gauze, paraffin wax, rubber sheeting or bags and Lucite balls. The inserted material would force the upper lobe of the lung to collapse.

pneumothorax n – a condition in which air or other gas is present in the pleural cavity and which occurs spontaneously as a result of disease or injury of lung tissue, rupture of air-filled pulmonary cysts, or puncture of the chest wall or is induced as a therapeutic measure to collapse the lung.

pressure n – **1** pressure level, force per unit area (the force applied to a unit area of surface; measured in pascals (SI unit) or in dynes (cgs unit)); "the compressed gas exerts an increased pressure". **2** a force that compels; "the public brought pressure to bear on the government". **3** pressure, pressing (the act of pressing; the exertion of pressure); "he gave the button a press"; "he used pressure to stop the bleeding"; "at the pressing of a button".

prior to prep – before.

promotion n – **1** a message issued in behalf of some product or cause or idea or person or institution; "the packaging of new ideas". **2** act of raising in rank or position. **3** encouragement of the progress or growth or acceptance of something.

concern n – **1** something that interests you because it is important or affects you; "the safety of the ship is the captain's concern". **2** an anxious feeling; "care had aged him"; "they hushed it up out of fear of public reaction". **3** a feeling of sympathy for someone or something; "She felt strong concern for those less fortunate".

purity n – **1** pureness (being undiluted or unmixed with extraneous material). **2** pureness, sinlessness, innocence, whiteness (the state of being unsullied by sin or moral wrong; lacking a knowledge of evil). honor, honour, pureness (a woman's virtue or chastity).

purported adj – supposed, or assumed to be; normally assumed to be.

quarantine n – **1** enforced isolation of patients suffering from a contagious disease in order to prevent the spread of disease. **2** isolation to prevent the spread of infectious disease.

acceptance n – **1** credence: the mental attitude that something is believable and should be accepted as true; "he gave credence to the gossip". **2** adoption: the act of accepting with approval; favorable reception; "its adoption by society"; "the proposal found wide acceptance". **3** the state of being acceptable and accepted; "torn jeans received no acceptance at the country.

recognise v – **1** recognize: show approval or appreciation of; "My work is not recognized by anybody!"; "The best student was recognized by the Dean". **2** accredit: grant credentials to; "The Regents officially recognized the new educational institution"; "recognize an academic degree". **3** spot: detect with the senses; "The fleeing convicts were picked out of the darkness by the watchful prison guards"; "I can't make out the faces in this photograph".

remedy n – **1** redress, remedy, remediation (act of correcting an error or a fault or an evil). **2** curative, cure, therapeutic (a medicine or therapy that cures disease or relieve pain).

resurgence n – revival: bringing again into activity and prominence; "the revival of trade"; "a revival of a neglected play by Moliere".

sanatorium n – **1** sanatorium, sanitarium (a hospital for recuperation or for the treatment of chronic diseases). **2** Bedlam, booby hatch, crazy house, cuckoo's nest, funny farm, funny house, loony bin, madhouse, nut house, nuthouse, snake pit (pejorative terms for an insane asylum).

spittoon n – a receptacle for spit (usually in a public place).

surgery n – **1** the branch of medical science that treats disease or injury by operative procedures "he is professor of surgery at the Harvard Medical School". **2** a room where a doctor or dentist can be consulted) "he read the warning in the doctor's surgery".

surgical – of or relating to or involving or used in surgery; "surgical instruments"; "surgical intervention".

intervention n – **1** the act of intervening (as to mediate a dispute, etc.); "it occurs without human. **2** a policy of intervening in the affairs of other countries. **3** interposition: the act or fact of interposing one thing between or among others.

The Canon of Medicine – **canon n** – a rule or especially body of rules or principles generally established as valid and fundamental in a field or art or philosophy; "the neoclassical canon"; "canons of polite society".

the urban poor – poor people living in cities.

thin wine – bad wine.

Evolution

coding region n – **1** coding region, depending on context, can refer to an organism or a gene. **2** portions of a DNA molecule that encode a protein or functional RNA. **3** the

portion of a genomic sequence bounded by start and stop codons that identifies the sequence of the protein being coded for by a particular gene.

codon n – a specific sequence of three adjacent nucleotides on a strand of DNA or RNA that specifies the genetic code information for synthesizing a particular amino acid.

co-evolve v – in a broad sense, biological coevolution is "the change of a biological object triggered by the change of a related object".

genome n – the ordering of genes in a haploid set of chromosomes of a particular organism; the full DNA sequence of an organism; "the human genome contains ...

implication n – deduction: something that is inferred (deduced or entailed or implied); "his resignation had political implications".

track v – follow the track of; "track down a bear".

Chapter 3

Tuberculosis Pandemic in Russia

access n – **1** entree, accession, admission, admittance (the right to enter). **2** the right to obtain or make use of or take advantage of something (as services or membership). **3** approach (a way of entering or leaving) "he took a wrong turn on the access to the bridge". **4** access code (a code (a series of characters or digits) that must be entered in some way (typed or dialed or spoken) to get the use of something (a telephone line or a computer or a local area network etc.)).

adopt v – **1** choose and follow; as of theories, ideas, policies, strategies or plans; "She followed the feminist movement". **2** take up and practice as one's own.

assess v – **1** measure, evaluate, value, appraise, value (evaluate or estimate the nature, quality, ability, extent, or significance of); "I will have the family jewels appraised by a professional"; "access all the factors when taking a risk". **2** charge (a person or a property) with a payment, such as a tax or a fine). **3** tax, set or determine the amount of (a payment such as a fine). **4** estimate the value of (property) for taxation; "Our house hasn't been assessed in years".

feasibility n – **1** the quality of being doable. **2** the state of being feasible or possible.

feasible – capable of being done with means at hand and circumstances as they are.

attributable adj – capable of being attributed; "the collapse of the movement was attributable to a lack of morale"; "an idea attributable to a Russian".

benefit n – **1** financial assistance in time of need. **2** profit: derive a benefit from; "She profited from his vast experience". **3** something that aids or promotes well-being; "for the benefit of all".

challenge n – **1** a demanding or stimulating situation; "they reacted irrationally to the challenge of Russian power". **2** a call to engage in a contest or fight. **3** questioning a statement and demanding an explanation.

civil sector – applying to ordinary citizens as contrasted with the military; "civil authorities".

consequence n – **1** effect, outcome, result, event, issue, upshot (a phenomenon that follows and is caused by some previous phenomenon) "the magnetic effect was greater when the rod was lengthwise". **2** aftermath (the outcome of an event

especially as relative to an individual). **3** import, moment (having important effects or influence) "decisions of great consequence are made by the president himself".

contain v – **1** incorporate, include, have as a component; "A totally new idea is comprised in this paper". **3** hold, have within; "The jar carries wine"; "This can contains water".

coverage n – **1** the total amount and type of insurance carried. **2** the extent to which something is covered; "the dictionary's coverage of standard English is excellent". **3** the news as presented by reporters for newspapers or radio or television; "they accused the paper of biased coverage of race relations".

current adj – occurring in or belonging to the present time; "current events"; "the current topic"; "current negotiations"; "current psychoanalytic theories"; "the ship's current position".

effort n – attempt (earnest and conscientious activity intended to do or accomplish something); "made an effort to cover all the reading material". **2** use of physical or mental energy; hard work; "he got an A for effort"; "they managed only with great exertion". **3** feat (a notable achievement); "he performed a great feat"; "the book was her finest effort".

exacerbate v – **1** worsen, aggravate, exasperate (make worse); "This drug aggravates the pain". **2** exasperate, aggravate, irritate.

incentive n – **1** inducement, motivator (a positive motivational influence). **2** bonus (an additional payment (or other remuneration) to employees as a means of increasing output).

outdated adj – out-of-date, superannuated (old; no longer valid or fashionable); "obsolete words"; "an obsolete locomotive"; "outdated equipment"; "superannuated laws".

perverse adj – **1** marked by a disposition to oppose and contradict; "took perverse satisfaction in foiling her plans". **2** contrary: resistant to guidance or discipline; "Mary Mary quite contrary"; "an obstinate child with a violent temper"; "a perverse mood"; "wayward behavior". **3** depraved: deviating from what is considered moral or right or proper or good; "depraved criminals"; "a perverted sense of loyalty"; "the reprobate conduct of a gambling aristocrat".

practice n – **1** pattern (a customary way of operation or behavior); "it is their practice to give annual raises"; "they changed their dietary pattern". **2** exercise, drill, practice session, recitation (systematic training by multiple repetitions) "practice makes perfect". **3** praxis (translating an idea into action) "a hard theory to put into practice"; "differences between theory and praxis of communism". **4** the exercise of a profession; "the practice of the law"; "I took over his practice when he retired". **5** knowledge.

rapid adj – **1** occurring in a brief period of time; "a rapid rise through the ranks". **2** a part of a river where the current is very fast. **3** characterized by speed; moving with or capable of moving with high speed; "a rapid movement"; "a speedy car".

redouble v – **1** double in magnitude, extent, or intensity; "The enemy redoubled their screaming on the radio". **2** double again; "The noise doubled and redoubled". **3** double, especially to double again; to increase considerably; To double an opponent's doubling bid; To become twice as big.

require v – **1** necessitate, require as useful, just, or proper; "It takes nerve to do what she did"; "success usually requires hard work". **2** ask, consider obligatory, expect; "We require our secretary to be on time"; "Aren't we asking too much of these children?"; "I expect my students to arrive in time for their lessons". **3** command, make someone do something.

response n – **1** a result; "this situation developed in response to events in Africa". **2** reaction, a bodily process occurring due to the effect of some antecedent stimulus or agent; "a bad reaction to the medicine". **3** answer, a statement (either spoken or written) that is made to reply to a question or request or criticism or accusation; "I waited several days for his answer".

scale up v – **1** increase proportionally; "scale up the model".

severe adj – **1** intensely or extremely bad or unpleasant in degree or quality; "severe pain"; "a severe case of flu". **2** hard: very strong or vigorous.

significant adj – **1** important (in effect or meaning); "a significant change in tax laws"; "a significant change in the Constitution"; "a significant contribution"; "significant details". **3** substantial (fairly large); "won by a substantial margin". **4** too closely correlated to be attributed to chance and therefore indicating a systematic relation; "the interaction effect is significant at the .01 level"; "no significant difference was found". **5** meaning, pregnant (rich in significance or implication) "a meaning look".

smear n – cytologic smear, cytosmear (a thin tissue or blood sample spread on a glass slide and stained for cytologic examination and diagnosis under a microscope).

top-priority – relatively highest importance; item of highest importance; of the highest level of importance; to be done before doing anything else.

transition n – **1** passage, the act of passing from one state or place to the next. **2** conversion, an event that results in a transformation. **3** a change from one place or state or subject or stage to another.

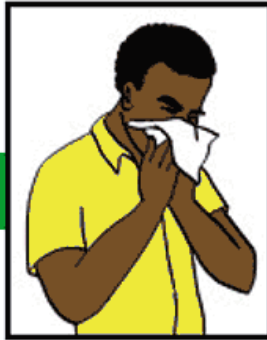
Protect Others. Protect Yourself.

Cover your cough or sneeze.



Cough or sneeze into
your arm.

or



Use a tissue and then
throw away...



...then wash your
hands.

Stop the spread of TB, colds, and influenza.



TESTS

TUBERCULOSIS

THE PROBLEM OF TUBERCULOSIS EPIDEMIC

Test 1 (Chapter 1) Task 1. Complete the following phrases.

1. TB

is.....

2. The factors that fuel the TB epidemic in Ukraine include

.....

3. The symptoms of pulmonary TB include

.....

4. TB transmission is possible

.....

5. To prevent TB people should take into consideration.....

6. An urgent need for a new vaccine can be explained by

.....

Task 2. Fill in the gaps with

a) the words given: opportunistic, infection, congregate, eradication, eradicate, livestock, contagious, variants

on track for global, the most common infection, sites, multiple, high-risk settings, cease to be , domestic, an effort to

b) the prepositions: with, with, through, across, to, in, in, in, in, up

cause TB cattle, regular surveillance, the globe, immigrants, upswingthe number, along smallpox, common humans, cough blood, a tendency fatigue, co-exist

Task 3. Match the definitions to the words.

1) eradication	A condition of being very tired
2) latent	B destruction, elimination
3) fatigue	C make smaller in size, number, degree
4) spine	D remove, put away, destroy
5) exposure	E present but not active
6) declare	F not given enough care
7) regimen	G backbone
8) neglected	H announce
9) eliminate	I set of rules for improving one's health
10) reduce	J being exposed

1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _ 8 _ 9 _ 10 _

TUBERCULOSIS

Test 2 (Chapter 2) Task 1. Complete the following phrases.

1. Tuberculosis has been present in humans since (or for).....

2. The use of the word consumption for tuberculosis can be explained by the fact that.....

3. Robert Koch received the Nobel Prize in physiology and medicine in 1905 for (innumerate Koch's achievements that contribute to TB research and treatment).....

4. Over hundreds of years there have been numerous attempts to treat TB by (innumerate as many of them as you can, but not less than three different methods).....

5. To halt the spread of TB there have been used methods of.....

Task 2. Fill in the gaps with: a) the words given: morbidity, efficacy, eradication, fuel, regimen, results, particularly, trials, reliable, species

take the prescribed appropriately, be on track for global, domesticated, the TB epidemic, mortality and statistics, at high risk, provide protection, the protective, show promising, clinical on candidates

b) the prepositions: of, of, in, for, for, to, per, on, across, through

common humans, resistant multiple drugs, year, the globe, free TB, regular surveillance, the effect the immune system, an urgent need, preferable this area, free TB

Task 3. Match the definitions to the words.

1) deficiency	A a state of poor nutrition
2) eliminate	B ignored, unheeded (disregarded)
3) malnutrition	C the state of needing something that is absent or unavailable
4) regimen	D be the reason or explanation for
5) overcrowding	E unequal, lacking the requisite qualities or resources to meet a task
6) neglected	F extinguish, get rid of, do away with
7) administer	G safeguard, guard
8) inadequate	H containing too many occupants for an area of its size
9) precaution	I (medicine) a systematic plan for therapy (often including diet)
10) account for	J give or apply (medications)

1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _ 8 _ 9 _ 10 _

TUBERCULOSIS

Test 3 (Chapter 3) Task 1. Complete the following phrases.

1. The basis for the Ukrainian national TB control policy is
.....
.....
.....
2. The five elements that compose DOTS strategy are.....
.....
.....
3. The implementation of DOTS in Ukraine can be problematic as
.....
.....
.....
4. Social stigma is
.....
.....
.....
5. Stigma remains the single most important barrier to public action because
.....
.....
.....

Task 2. Fill in the gaps with a) the words given: response, disapproval, action, disgrace, require, precautions, issue, fears

..... an order, develop an effective to, significant improvement, severe social, irrational or unfounded, take, the social, accelerate

b) the prepositions: of, of, from, up, for, out, across, to

implement Ukraine, disapproval, lack education, pertaining a particular person, benefit treatment, be missing, call, scale-....

Task 3. Match the definitions to the words.

1) top-priority	A loss of respect, good reputation
2) coverage	B state of being illegitimate, contrary to the law
3) general practitioner	C ruin, make desolate clinic
4) dispensary	D doctor who consults and treats his patients in his surgery or their homes
5) perverse	E where medicine and medical supplies are dispensed
6) current	F occurring in or belonging to the present time
7) illegitimacy	G that may be used or obtained
8) disgrace	H item of highest importance
9) devastate	I deviating from what is considered moral or right or proper
10) available	J the extent to which something is covered

1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _ 8 _ 9 _ 10 _

KEYS TO TESTS

THE EPIDEMIC OF COVID-19

Test 1. Task 2: by, between, in, with, in, about, to, from, out, down, to, towards, of

Task 3: 1 G, 2 J, 3 F, 4 H, 5 I, 6 C, 7 A, 8 D, 9 E, 10 B

Test 2. Task 2: towards, from, out, down, to, towards, of

Task 3: 1 J, 2 A, 3 F, 4 B, 5 G, 6 D, 7 C, 8 E, 9 H, 10 I

Test 3. Task 2: of, from, of, with, with, from, over, between

Task 3: 1 G, 2 H, 3 F, 4 A, 5 B, 6 C, 7 D, 8 E

HIV/AIDS EPIDEMIC

Test 1. Task 2: a) leading, vary, frenzied, high-risk, AIDS; b) through, at, among, in, on, in, of, on, over, in

Task 3: 1 C, 2 H, 3 E, 4 F, 5 A, 6 J, 7 I, 8 B, 9 G, 10 D

Test 2. Task 2: a) national, growth, public, critical, rates, outbreaks, 'bridge', fertile; b) to, to, through, across, in, for, off, in, on, of, to

Task 3: 1 D, 2 F, 3 G, 4 A, 5 I, 6 B, 7 C, 8 J, 9 E, 10 H

Test 3. Task 2: a) overwhelming, tackled, relax, harassment, nationwide, introduction, comprehensive, wide-scale; b) of, among, between, of, up, up, into

Task 3: 1 D, 2 E, 3 F, 4 A, 5 B, 6 C, 7 I, 8 J, 9 G, 10 H

TUBERCULOSIS

Test 1. Task 2: a) eradication, opportunistic, infection, variants, congregate, contagious, livestock, eradicate; b) in, with, across, in, in, with, in, up, to, with

Task 3: 1 B, 2 E, 3 A, 4 G, 5 J, 6 H, 7 I, 8 F, 9 D, 10 C

Test 2. Task 2: a) regimen, eradication, species, fuel, morbidity, particularly, reliable, efficacy, results, trials; b) in, to, per, across, of, through, on, for, for, of

Task 3: 1 C, 2 F, 3 A, 4 I, 5 H, 6 B, 7 J, 8 E, 9 G, 10 D

Test 3. Task 2: a) issue, response, require, disapproval, fears, precautions, disgrace, action; b) across, of, of, to, from, out, for, up

Task 3: 1 H, 2 J, 3 D, 4 E, 5 I, 6 F, 7 B, 8 A, 9 C, 10 G

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