

M1 SCIENCES DU MÉDICAMENT
ET DES PRODUITS DE SANTÉ

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UEM 908 ANGLAIS

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Nota Bene

- Chaque élève doit être en possession de ce recueil de textes à tous les cours d'anglais.
- La lecture de ces documents ne peut, en aucun cas, remplacer la présence aux cours.
- La sélection des textes a été effectuée selon des critères linguistiques ; leur contenu scientifique ne doit pas être pris comme une référence.

Table of Contents

Course objectives and guidelines.....	5
1. Presentation skills.....	8
<i>Activity 1.A. Discuss in pairs.....</i>	8
<i>Activity 1.B. Watch and analyse.....</i>	8
<i>Activity 1.C. The hook.....</i>	8
<i>Activity 1.D. Signposting *.....</i>	9
2. Applying for a position: writing a CV.....	12
<i>Activity 2.A. Discuss in pairs.....</i>	12
<i>Doc 2.1. The Pandemic changed everything about work, except the humble resumé.....</i>	12
<i>Doc 2.2. How to Write a Résumé That Stands Out.....</i>	13
<i>Activity 2.B. Expert tips for a killer CV.....</i>	15
<i>Activity 2.C. Grammar for CV writing.....</i>	15
<i>Activity 2.D. Writing a CV.....</i>	17
3. Applying for a position: writing a cover letter.....	18
<i>Activity 3.A. Discuss in pairs.....</i>	18
<i>Doc 3.1. Guardian Jobs advice on how to write a cover letter.....</i>	18
<i>Activity 3.B. Expert tips for a great cover letter.....</i>	20
<i>Activity 3.C. Cover letter language.....</i>	20
<i>Activity 3.D. Writing a cover letter *.....</i>	22
4. Applying for a position: interview techniques.....	23
<i>Activity 4.A. Discuss in pairs.....</i>	23
<i>Activity 4.B. Two truths, one lie.....</i>	23
<i>Activity 4.C. The STAR method.....</i>	23
<i>Activity 4.D. The elevator pitch.....</i>	24
<i>Doc 4.1. Worst-ever job interviews: 'We had to crawl and moo'.....</i>	25
5. Drugs: administration and instructions.....	27
<i>Activity 5.A. Discuss in pairs.....</i>	27
<i>Doc 5.1. Routes of Drug Administration.....</i>	27
<i>Activity 5.B. Which route is which?.....</i>	28
<i>Activity 5.C. Which dosage form?.....</i>	29
<i>Activity 5.D. Internal organs.....</i>	30
<i>Activity 5.E. Expressing symptoms.....</i>	31
<i>Activity 5.F. Patient-pharmacist dialogues.....</i>	32
6. Vaccination.....	35
<i>Activity 6.A. Discuss in pairs.....</i>	35
<i>Activity 6.B. Video analysis.....</i>	35
<i>Activity 6.C. Giving a speech.....</i>	36
<i>Activity 6.D. Smallpox and measles.....</i>	36
<i>Activity 6.E. Malaria.....</i>	36

7. Case study of a pandemic: AIDS.....	39
<i>Activity 7.A. Discuss in pairs.....</i>	39
<i>Activity 7.B. Web quest.....</i>	39
<i>Activity 7.C. Video quest and production.....</i>	41
8. Healthcare systems: the USA and the UK.....	45
<i>Activity 8.A. Discuss in pairs.....</i>	45
<i>Activity 8.B. Video summary (USA) *.....</i>	46
<i>Activity 8.C. Compound adjectives.....</i>	47
<i>Activity 8.D. Video summary (UK).....</i>	48
<i>Activity 8.E. The NHS: an Americanized future?.....</i>	48
9. Clinical trials – the landscape today.....	50
<i>Doc 9.1. Clinical trials by year, country, WHO region and income group.....</i>	50
<i>Activity 9.A. Present data *.....</i>	51
<i>Activity 9.B. Step by step.....</i>	53
<i>Doc 9.2. Patients losing out amid slump in NHS clinical trials, warn top clinicians.....</i>	53
<i>Doc 9.3. The rise of Spain: A key player in global clinical trials.....</i>	54
<i>Doc 9.4. South Korea and Australia on the rise as clinical research hubs.....</i>	56
<i>Activity 9.C. Vocabulary search.....</i>	57
<i>Activity 9.D. Consultants.....</i>	58
10. New horizons: biopharmaceuticals.....	59
<i>Activity 10.A. Pair work.....</i>	59
<i>Doc 10.1. FDA approves first gene-editing treatment for human illness.....</i>	60
<i>Doc 10.2. Toddler born deaf can hear after gene therapy trial breakthrough her parents call "mind-blowing".....</i>	60
<i>Doc 10.3. A new type of medicine, custom-made with tiny proteins.....</i>	61
<i>Activity 10.B. Summarise and present.....</i>	61
11. New horizons: AI, 3D printing, creatures big and small.....	62
<i>Activity 11.A. AI, 3D printing, big creatures.....</i>	62
<i>Activity 11.B. Small creatures.....</i>	62
<i>Activity 11.C. Poster.....</i>	63
12. Counterfeit drugs.....	64
<i>Activity 12.A. Discuss in pairs.....</i>	64
<i>Doc 12.1. Fake medicines worth EUR 64 million off EU markets.....</i>	64
<i>Doc 12.2. Killed by a pill bought on social media: the counterfeit drugs poisoning US teens.....</i>	65
<i>Doc 12.3. EU's counterfeit medicine plague calls for cross-sector innovation to restore public trust.....</i>	67
<i>Doc 12.4. Could cyber-physical watermarks be the key to pill-level traceability?.....</i>	68
<i>Activity 12.B. Vocabulary search.....</i>	69
<i>Activity 12.C. Debate *.....</i>	70

13. Ethical issues today	72
<i>Activity 13.A. Discuss in pairs</i>	72
<i>Doc 13.1. The Carbon Cost of Healthcare</i>	72
<i>Activity 13.B. Finding new ways forward</i>	72
<i>Doc 13.2. How racism makes us sick</i>	73

*NB: the * symbol indicates parts of the programme that contain a “Tips toolbox”. These are lists of pieces of advice, methodology and vocabulary to help you do a whole range of things in English.*

Course objectives and guidelines

You are about to start a career in the pharmaceutical industry or in research. From this year on, you will be doing training periods in your chosen fields, most likely joining organizations that use English as a working language. It may sound daunting, but don't worry! You'll get plenty of practice in class: 16 classes of 2 hours, in other words, 32 hours throughout the school year. By the end of the year, you should be able to:

- follow and take part in a discussion/ meeting in a professional setting,
- understand and summarize articles from scientific journals,
- understand and summarize authentic news reports (CNN, BBC, etc.),
- write up a CV and cover letter in English for international use,
- write clear and concise professional letters and reports,
- make a slideshow presentation in front of an audience and handle questions.

Your ability to carry out the above tasks will be assessed in two ways.

- Continuous assessment: 60% of yearly average. Written and oral work carried out during the year. These marks still count if you have to sit the second session of exams.
- Final oral presentation: 40% of yearly average.

Continuous assessment - written

- Vocabulary tests of 20 words, on paper, every 2 lessons, 7 tests over the year (if you miss a test, you must resit). One total grade out of 20. Test dates: 4 OCT / 18 OCT / 8 NOV / 22 NOV / 6 DEC / 24 JAN / 7 FEB.
- Video summary on a medical subject (~ 180 words / ~ 3-minute document).
- Cover letter to answer a job proposal.

Continuous assessment - oral

1. My Project

- 5 minutes, individual, slideshow
- 2 to 4 presentations per class, semester 1, set dates

Present your personal professional project: job title, type of company, responsibilities, description of duties, work setting and conditions.

2. Breaking News

- 6 minutes, pairs (3 min/ student), no slideshow, notes on A5 paper
- roughly 1 presentation per class, semesters 1 & 2, set dates

Presentation of an interesting medical innovation or discovery. One student plays the role of the news anchor, the other student is a scientist who's been invited on the news show. Speech has to be distributed evenly. During the presentation, the students presenting

explain a word of the day to the class. At the end of their presentation, they host a quiz comprised of 3 questions (true or false, or multiple choice questions).

3. A Drug

- 6 minutes, pairs (3 min/ student), semester 2, slideshow
- 2 to 4 presentations per class, set dates

Presentation of how a drug works in the body: description of the drug's form, posology, composition and mechanism(s) of action, followed by questions from the class.

Final oral presentation

5-minute individual presentation on a medical subject of your choice (after teacher's approval), including slideshow.

Nota Bene: If you miss more than 1 class without providing justification to your teacher, the administration may not allow you to sit the 1st session of exams.

Course material and equipment needed

For English courses this year, you will need to bring to class:

- a digital or printed version of this booklet, which is available in PDF format on Ecampus,
- A laptop or tablet with a WIFI connection and a HDMI or VGA port, and a pair of earphones,
- A4 writing paper and pens.

You will also be using an online platform called Ecampus, which contains:

- class documents,
- vocabulary lists (pdf and quizlet formats),
- resources to help you improve your English (exercises on oral comprehension, grammar, vocabulary, pronunciation, etc.),
- unlimited access to training resources for the 5th part of the TOEIC exam.

You may also use Ecampus to:

- contact your teacher, via the messaging service,
- upload assignments.

The Monday English workshop: English4YOU

Every Monday, from 12:30 to 13:30, HM6 building, one of your English teachers will host an open workshop to help you out with all sorts of English language requests:

- preparing for the TOEIC exam,
- writing a CV or a recommendation letter,
- rehearsing a presentation, proofreading an article you are writing, etcetera.

English4YOU is open to any pharmacy student and you don't need to notify your attendance beforehand. All you need to do is pop in with something to work on!

Preparing for the future

This faculty is an exam centre for the TOEIC. There is the opportunity for you to prepare it by using the TOEIC PHARMA part 5 pages available on Ecampus.

You can also take a TOEIC crash course followed by a TOEIC exam here at the Language Centre (Eiffel building) in case you need a TOEIC score for prospective entry into M2 courses or business schools which require one.

Bear in mind that you are eligible to a Pharma preferential rate with Prepmyfuture.com, to help you prepare and sit the TOEIC. For more information, contact our assistant, Sophie Dhirson (Sophie.dhirson@universite-paris-saclay.fr) or the APIEP student association.

How to improve your English by yourself?

1. Select English as the default language on all your digital devices.
2. Read short articles and watch short videos from press outlets, via their websites, phone apps or social media channels:
 - ScienceDaily
 - European Pharmaceutical Review,
 - Medical Xpress,
 - Journal of Clinical Investigation,
 - Pharmaceutical Technology,
 - New Scientist,
 - BBC Health, BBC Science Focus magazine,
 - Associated Press health...
3. Listen to pod-casts:
 - The Daily (New York Times),
 - BBC Crowd Science,
 - The Guardian Science Weekly,
 - NPR News Health channel...
4. Watch series related to the medical world: Casualty, Doctor House, The Good Doctor, ER...
5. Speak English with your friends.
6. Exercise your English online (Memrise, Duolingo, l'Anglais Facile, British Council...)

1. Presentation skills

Better a diamond with a flaw than a pebble without. Confucius

In making a speech one must study three points: first, the means of producing persuasion; second, the language; third the proper arrangement of the various parts of the speech.

Aristotle

You cannot not communicate. Every behavior is a kind of communication. Because behavior does not have a counterpart (there is no anti-behavior), it is not possible not to communicate.

Paul Watzlawick

Activity 1.A. Discuss in pairs

1. Read the three quotes above. Student A chooses one, student B chooses another one. Explain to your partner how the quote you chose applies to giving a presentation.
2. Think about a boring teacher you had last year. Why was that person boring?
3. List the five most important things you should do to give a successful presentation.

Activity 1.B. Watch and analyse

- Video 1: [A life lesson from a volunteer firefighter](#), TED video, March 2011, Mark Bezos
- Video 2: [What's wrong with our food system](#), TED video, August 2010, Birk Baehr
- Video 3: [How I harnessed the wind](#), TED video, July 2009, William Kamkwamba

1. Organise into three groups of 4 to 6 students. Each group picks a video and watches it.
2. In each group, organise into three sub-groups of 1 to 2 students to focus on a particular item. Watch the video again and note down the strengths and weaknesses of the speaker regarding that item.
 - sub-group 1 → body language, gestures, eye contact
 - sub-group 2 → elocution and linguistic effects (rhetorical questions, conditionals, remarks to audience, markers of time...)
 - sub-group 3 → content (balance between message/ examples/ illustrations) and organisation (structure, length of parts)
3. As a class, gather your findings and make a list of your top tips for each item.

Activity 1.C. The hook

First impressions last! So it's important that your presentation starts strong. One way to do that is to start with a hook: a short piece of information or theatricality that will captivate your audience.

A hook can be: - an amazing fact, - a personal story, - a tale
 - a stunning statistic, - a quote - an extract from a song...

1. Pick a subject from the list below and write a hook to present it.

MICROSCOPE • PRESERVATION • MILLION • NURSE • MOLECULAR • TORTURE
OPERATION • POLITICAL • CURIOUS • NUDE • BULLET • ROSES • ANIMAL
KNOCKOUT • STEROID • SILVER • INTESTINE • CHILD • PEOPLE • WAR • SCIENTIST
SHRUNKEN • ARTIFICIAL • ALCOHOL • BOTTLES • APOTHECARY • VIRUSES • WAR
TATTOO • MALARIA • EUGENICS • APOCALYPSE • BABY • DRUGS • SKELETON
AMPUTATION • VITAMIN • DREAM • SMOKE • HEAD • DOCTOR • BRAIN • TOOTH
INSPIRATION • ACUPUNCTURE • DEAD • TRUTH • MUTATION • PAIN • NURTURE
NATURE • LIFE • ART • RADICAL • LAB • OBESITY • MEDICINE • BLOOD • POWER
POLITICAL • WOMAN • ILLNESS • PRAYER • EXPERIMENT • FEVER • SEX • MEMORY
TONGUE • WONDER • END • PLAGUE • PILL • MASTERPIECE • PLACEBO • BLIND
HEAD • PREGNANT • HAIR • SLEEP • HISTORY • EXECUTION • FUNERAL
RESEARCH • HELP • FREE • BEAUTY • INVISIBLE • WALKING • STUDIO • CROSS
ATTACK • YELLOW • PAPER • UNICORN • THINGS • ANCIENT • CEREMONY
EMBLEMATIC • REVOLUTIONARY • SERENDIPITY • HELIX • MAPS • CONCEPTUAL

2. In pairs, practice your hook on your partner. Exchange feedback.

3. Present your hook to the class.

Activity 1.D. Signposting *

No need to start strong if your presentation just fizzles away. In order to keep everyone interested and focused, you need to guide your audience through your presentation:

- give regular indications of your outline
- say when you are moving on to the next point,
- signal any change of direction or digression,
- direct your audience's attention to visual aids or artefacts.

This is called signposting. To achieve it, you need to learn the vocabulary associated to it.

1. Read the vocabulary below.

2. Choose 5 sentence starters from the ten categories of signposting vocabulary below and write five full sentences that expand on your hook.

3. Practice the sentences with your partner.

4. Present them to the class.

*** Tips toolbox: Signposting vocabulary ***

I. Welcoming the audience

Good morning everyone/ ladies and gentlemen, and welcome to...
Before I begin, I'd like to thank X for inviting me here today.
It's good to see so many people here today./ I'm very happy to be here.

II. Introducing yourself & your topic

Let me start by introducing myself.
My name is... / I'm... and I'm in charge of...
Just a few words about myself...
This morning I'm going to talk about... / tell you about... / show you... / report on
The aim of this presentation is to...

III. Getting attention

Let me ask you a question (+ rhetorical question)
Take a look at this picture. What does it tell you about...?
Somebody once said... (+ quotation)
Did you know that...? (+ surprising statistics)
I hope this presentation will enable you to...
By the end of this talk you will...

IV. Your outline

I've divided my talk into X main parts.
In this presentation I will try to answer 3 questions: Why...? How...? What...?
First, I'd like to... Then I'll talk a little about...
After that I'll move on to...
Finally/ To finish, I'll...
If you have any questions, feel free to interrupt.
I will deal with your questions at the end.
OK, let's begin with the first point/ slide, which is ...

V. Going back

Earlier I mentioned.../ Remember when we looked at...
Going back to.../ Let's go back for a moment to what I was saying earlier...
It might be useful to give a little background here.

VI. Focusing on something

If we look at this more closely, we can see.../ As you can see...
Basically / To put it simply / In a nutshell...
So, the main issue here is...
I would like to stress/ emphasize that... /
I'd like to expand on/ elaborate on that a little.
Let me explain with a concrete example.

VII. Question-answer

Now what's the reason for that? the reason is...

How much is this going to cost? Well, the figures show...

So, what can we do about all this? I'll tell you. We plan to...

VIII. Referring to visuals

As you can see on the next slide...

I'd like to highlight two things on this table/ chart/ diagram...

What is interesting on this slide is...

I'd like to draw your attention to...

IX. Asking for contributions

Are there any questions so far?

Does anyone have any comments?

How does this relate to your own particular situation?

X. Summing up/ recapping

To sum up/ to conclude/ to recap...

So, what I want you to remember is that...

**** Tips toolbox: Giving a presentation****

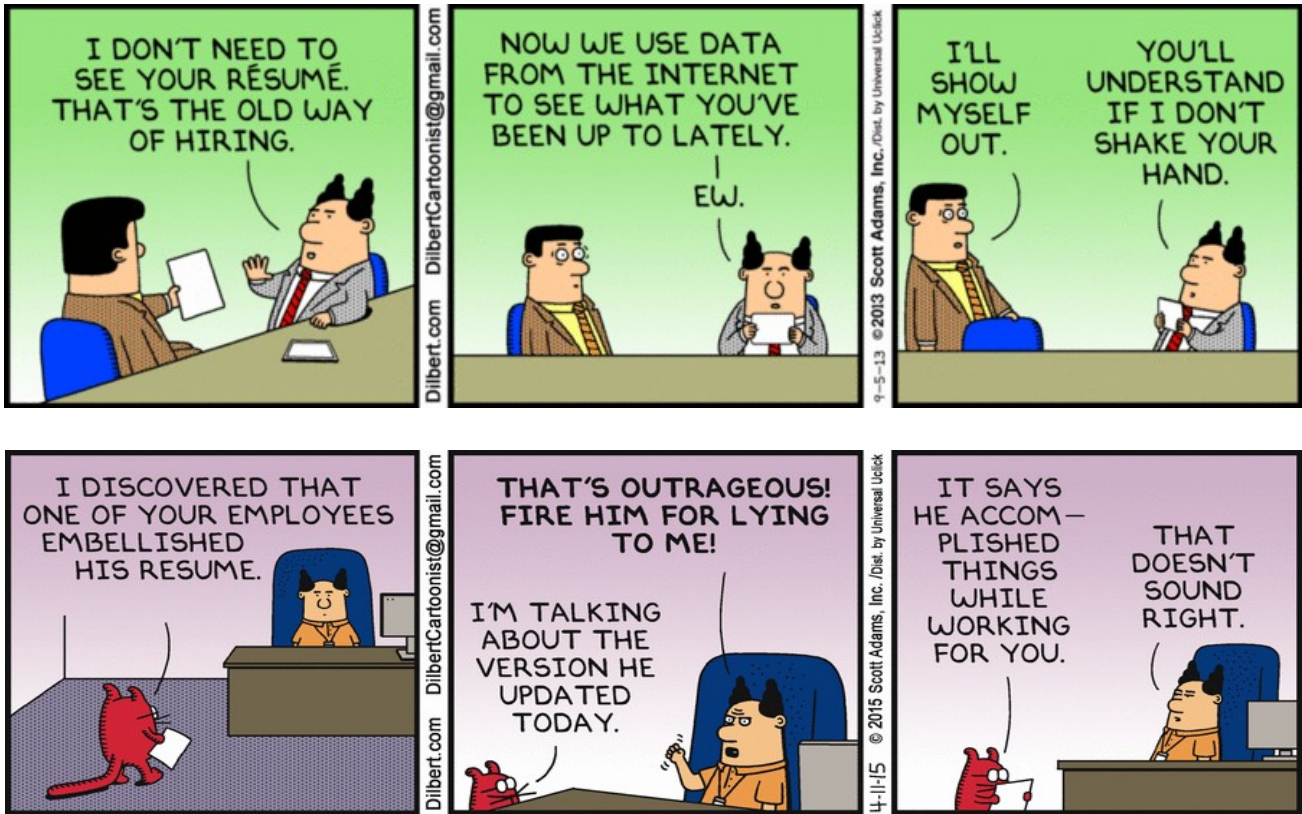
You may have questions regarding the proper way of giving a presentation, designing a slide show, or articulating speech and visual aids during a presentation. Remember to:

- Ask questions to your teacher in class;
- consult the [UCLA Library website](#), from the University of California Los Angeles, which is replete with great tips on how to design and give presentations, but not only: there's also advice on writing abstracts, research proposals and research papers!

If you learn by watching, here is a bit of inspiration (and fun) from people who are known to be successful speakers.

- [Life After Death by Powerpoint](#), Youtube, Don McMillan, 2010
- [The agony of trying to unsubscribe](#), TED, John Veitch, June 2016
- [Success, failure and the drive to keep creating](#), TED, Elizabeth Gilbert, March 2014
- [The magic washing machine](#), TED, December 2010

2. Applying for a position: writing a CV



Activity 2.A. Discuss in pairs

1. Talk with your partner on what the above comic strips mean to you in terms of:
 - how to promote yourself with a CV and/or online,
 - the fulfilment you should expect from work.
2. Share your findings with the class.

Doc 2.1. The Pandemic changed everything about work, except the humble resumé

The New York Times, 22nd January 2022 — Gray Beltran (abridged by teacher)

Two years into a pandemic, many aspects of work have changed drastically. In that time, some people have started new jobs, Zoomed their days away and then left companies where they never even met their co-workers in person. But one aspect of work remains remarkably unchanged [:] "Hiring managers and recruiters still rely on the resumé," said Vicki Salemi, an expert on the job-search process at Monster, the online job-posting site. [...]

In Monster's recent "Future of Work" report, recruiters in the United States ranked resumé search — the ability to look through uploaded résumés on sites such as Monster or Indeed — as the most effective tool for finding candidates. [...]

Résumé design and formats are relatively static, too. [...] That's because while the basics of the résumé itself haven't changed, the audience has. In the era of databases and applicant-tracking technology, software systems sort through job candidates before they make their way to recruiters. [...] Unlike those seeking jobs in the days of faxed and mailed résumés, today's job candidates might apply for one position through a company's job portal, have their résumés uploaded and stored in a database, and then be matched with a different role at the same company months or years later. "If companies are experiencing labor shortages in different areas, they may very well go back to their database," Ms. Salemi said.

That is why keywords matter. Ms. Minshew counsels people to look closely at the job description and highlight keywords and skills the company is looking for in that role. "Make sure that, if it's relevant and applicable, you're highlighting similar skills or even some of the same keywords on your résumé," Ms. Minshew said. [...]

A 2019 report from Jobscan found that nearly 99 percent of Fortune 500 companies used an applicant tracking system, which could put job seekers who don't include the right terms in their résumé at a disadvantage. [...]

But just because the format of the résumé hasn't changed much, it doesn't mean job seekers shouldn't try to make theirs look great, especially in creative fields. Marcos Chin, an illustrator and professor at the School of Visual Arts, said design professionals are often held to a different standard. "My résumé would have to look nice in the sense that it would need to be visually appealing," he said. "So typography would be considered."

Mr. Chin also helps his students — many of whom are just starting out in their careers — polish their résumés, giving them feedback about font sizes and spacing. "A really important thing is the way in which information is organized, so that it [...] looks beautiful and makes the person who receives it want to sort of dive deeper into what it is that you do," he said.

Design professionals often have the additional burden of creating a portfolio or personal website that showcases their work. But as the job market places a greater emphasis on personal branding as an element of career success, more professionals have begun to create personal websites and curate a social media presence. [...]

Doc 2.2. How to Write a Résumé That Stands Out

Harvard Business Review, 23rd December 2020 — Amy Gallo (abridged by teacher)

[...] "There's nothing quick or easy about crafting an effective resume," says Jane Heifetz, a resume expert and founder of Right Resumes. Don't think you're going to sit down and hammer it out in an hour. "You have to think carefully about what to say and how to say it so the hiring manager thinks, *This person can do what I need done*," she says. After all, it's more than a resume; "it's a marketing document" [...]

First things first: Don't send the same resume to every job. "You can have a foundational resume that compellingly articulates the most important information," says Heifetz, but you have to alter it for each opportunity. Of course, you may need to write the first version in a

vacuum but for each subsequent one, you need context. Heifetz recommends, as a first step, you carefully read the job description and highlight the five or six most important responsibilities, as well as a few keywords that you can then use in your resume. This exercise should then inform what you write in your summary, and the experiences and accomplishments you include. [...]

Yes, you do need a summary up top

The first 15-20 words of your resume are critically important “because that’s how long you usually have a hiring manager’s attention,” says Lees. Start with a brief summary of your expertise. You’ll have the opportunity to expand on your experience further down in your resume and in your cover letter. For now, keep it short. “It’s a very rich, very brief elevator pitch, that says who you are, why you’re qualified for the job, and why you’re the right person to hire,” [...] It should consist of a descriptor or job title like, “Information security specialist who...” “It doesn’t matter if this is the exact job title you’ve held before or not,” says Lees. It should match what they’re looking for. Here are two examples:

- *Healthcare executive with over 25 years of experience leading providers of superior patient care.*
- *Strategy and business development executive with substantial experience designing, leading, and implementing a broad range of corporate growth and realignment initiatives.*

And be sure to avoid clichés like “highly motivated professional.” Using platitudes in your summary or anywhere else in the document is “basically like saying, ‘I’m not more valuable than anyone else,’” explains Lees. They are meaningless, obvious, and boring to read. [...]

Get the order right

[...] List your employment history and related experience [...] then add any relevant education. Some people want to put their education up top. That might be appropriate in academia but for a business resume, you should highlight your work experience first and save your degrees and certifications for the end.

And that ever-popular “skills” section? Heifetz recommends skipping it all together. “If you haven’t convinced me that you have those skills by the end of the resume, I’m not going to believe it now,” she explains. If you have expertise with a specific type of software, for example, include it in the experience section. And if it’s a drop-dead requirement for the job, also include it in the summary at the very top. [...]

Be selective

It’s tempting to list every job, accomplishment, volunteer assignment, skill, and degree you’ve ever had, but don’t. “A resume is a very selective body of content. It’s not meant to be comprehensive. If it doesn’t contribute to convincing the hiring manager to talk to you, then take it out,” says Heifetz. This applies to volunteer work as well. Only include it as part of your experience — right along with your paid jobs — if it’s relevant. [...]

Make it readable

Lees says the days of needing a one-page resume are over: “It used to be that you used a tiny font size, fiddled with the margins, and crammed in the information to make it fit.”

Nowadays, two or three pages is fine, but that's the limit: "Any more than three and it shows that you can't edit." Heifetz agrees: "If you're going to tell a compelling story, you'll need more space." [...]

Stick to the most common fonts and avoid fancy layouts that may not be recognized by online application systems. "It's not how fancy it is. It's how clear, clean, and elegant it is in its simplicity," says Heifetz. Vary the line length and avoid crammed text or paragraphs that look identical. [...]

Ask for help

It can be hard to be objective about your own experience and accomplishments. Many people overstate — or understate — their achievements or struggle to find the right words. Consider working with a resume writer, mentor, or a friend who can help you steer away from questions like, "Am I good enough for this position?" and focus on "Am I the right person for the job?" [...]

Activity 2.B. Expert tips for a killer CV

1. As a pair, read the two articles above and pick up all the useful advice (student A reads doc 2.1, student B reads doc 2.2).
2. Share your findings and write a list of Dos and Don'ts for successful CV writing today.
3. Add 1 or 2 personal tips from you or your partner to your list.
4. Share your list with the class and augment it with contributions from other students.

Activity 2.C. Grammar for CV writing

1. Choose the right preposition for each sentence, out of: "in", "to", "of", "with", and "at".

Soft skills

- Able ___ work effectively as part of a team
- Excellent ___ communicating
- Quite good ___ organizing and planning
- Comfortable ___ taking decisions autonomously

Computer skills

- Proficient ___ Excel
- Expert user ___ Photoshop

Languages

- Fluent ___ English
- Working knowledge ___ Spanish

Achievements

- Recently managed ___ complete an expedition in South America
- Ran ___ a semi-marathon ___ raise funds against cancer this year

Experience

- Interested ___ chemistry with plenty of experience ___ this field

2. More prepositions: "at", "from", "in", "with".

- a) I started my career ____ Johnson Group after graduating ____ Hanyang University ____ a BA in Chemistry and an MSc ____ Chemical Engineering.
- b) I graduated ____ 2018 ____ an MA in Criminology and Criminal Justice ____ Tokyo University.
- c) I also obtained a BSc ____ Computer Science ____ the University of Bath ____ 2015.
- d) I read Modern Languages ____ The National University of Singapore.

3. Verbs... Have you noticed in exercise 1 that the text has no subject and that verbs are always in the past simple ("ed" or irregular form)? **That is how you need to present your skills, duties and achievements in a CV.** The verbs below are useful action verbs. Select 5 and write 5 sentences that are suitable for your CV and true for you.

<i>achieved</i>	<i>compiled</i>	<i>edited</i>	<i>investigated</i>	<i>represented</i>
<i>anticipated</i>	<i>coordinated</i>	<i>established</i>	<i>led</i>	<i>researched</i>
<i>approved</i>	<i>created</i>	<i>examined</i>	<i>listened to</i>	<i>supervised</i>
<i>arranged</i>	<i>delegated</i>	<i>formulated</i>	<i>motivated</i>	<i>taught</i>
<i>budgeted</i>	<i>demonstrated</i>	<i>identified</i>	<i>negotiated</i>	<i>trained</i>
<i>calculated</i>	<i>designed</i>	<i>implemented</i>	<i>organised</i>	<i>translated</i>
<i>chaired</i>	<i>developed</i>	<i>interpreted</i>	<i>planned</i>	<i>wrote</i>

- a)
- b)
- c)
- d)
- e)

4. More verbs... This time to do with **academic education and degrees**, which is a common pitfall for French speakers. Complete the sentences using the following verbs: "complete", "graduate", "hold", "obtain", "read".

- a) I _____ with a BA in sociology from the University of Los Angeles in 2007.
- b) I _____ Economics at the London School of Economics and Political Science. I then _____ a Master's in Security Studies at the University of Birmingham, which included a semester at New York University at the Center of European Studies.
- c) I _____ with a BA in Hotel and Catering Management from Hong Kong Polytechnic University. I also _____ an MBA in Marketing which I _____ last year.

Activity 2.D. Writing a CV

You and your team are expert CV writers with extensive experience in head-hunting and talent recruitment. A senior pharmacy executive has commissioned you with a special task, to write their CV for a high-flying position. Unfortunately, there are several caveats:

- You are requested to write a fully-fledged, one-page CV, with all relevant parts.
- The information you've got is what follows. Feel free to find more online.
- You are allowed to invent whatever piece of information is missing.
- You're competing with another team, so your work better be good!

Teams 1 & 2, you work for Nadja Y. West, M.D., who currently sits on the Board of Directors for Johnson & Johnson. She's applying for the position of *Vice President, Global Markets – Global Policy and Public Affairs* at Pfizer. Recommended information on candidate:

- www.jnj.com/leadership/nadja-y-west
- https://en.wikipedia.org/wiki/Nadja_West

Teams 3 & 4, you've been contacted by Susan Desmond-Hellmann, M.D., M.P.H, who currently sits on the board of directors at Pfizer. She's applying for the position of *VP of Clinical Quality Assurance at Abbvie*. Recommended information on candidate:

- www.pfizer.com/people/leadership/board_of_directors/susan_desmond-hellmann-md-mp
- https://en.wikipedia.org/wiki/Sue_Desmond-Hellmann

Teams 5 & 6, your expertise has been requested by Stephen Neidle, Emeritus Professor of Chemical Biology at the UCL School of Pharmacy, who is applying for the position of *Global Head Of Discovery Pharmacology at Merck*. Recommended information on candidate:

- <https://profiles.ucl.ac.uk/34650-stephen-neidle>
- https://en.wikipedia.org/wiki/Stephen_Neidle
- <https://www.sciencedirect.com/science/article/pii/S0968089622002796>

1. Design the best CV you can (using Writer, Word, Publisher, Canva...)
2. Present it to the class in 3 to 5 minutes. Explain the choices you made in terms of information, structure and style.
3. Teams working for other candidates will vote for the best CV. Example: teams 3, 4, 5 & 6 will vote for the best CV from teams 1 & 2.

3. Applying for a position: writing a cover letter

Out of your vulnerabilities will come your strength. Sigmund Freud

Find out what you like doing best, and get someone to pay you for doing it. Katharine Whitehorn

Start by doing what is necessary, then do what is possible, and suddenly you are doing the impossible. Francis of Assisi

Don't wait for the right opportunity: create it. George Bernard Shaw

Activity 3.A. Discuss in pairs

1. Read the four quotes above. Student A chooses one, student B chooses another one.
2. Explain to your partner how the quote you chose applies to your own professional project.
3. Share your thoughts with the class.

Doc 3.1. Guardian Jobs advice on how to write a cover letter

The Guardian, 17th December 2015 – Kirstie Brewer

[...] Before you begin writing...

[...] "Use your cover letter to show that you've done some research into the company and the market it operates in," says Gill Buchanan, director of Pure Resourcing Solutions. Ask yourself: what does the company do? Who are its competitors? Who is their current CEO? You might not use all this information in your cover letter, but the more you know about the company's causes and goals, the more believable your enthusiasm will seem.

You should write a cover letter from the point of view of the reader, says Neville Rose, Director at CV Writers. "Read the person specification carefully. This is the criteria the employer is selecting against. By aligning the content of your letter to the person specification you should create a focused letter that clearly demonstrates the expertise they are looking for. [...]"

Get the basics right

[...] "It would be seen as impolite or even careless to use a generic greeting like Dear Sir/Madam." If the job specification does not explicitly tell you who to address your cover letter to, use your initiative and find out through internet research or calling HR. It is a good chance to show how resourceful you are and will hopefully impress your reader.

Don't slip-up on your grammar, punctuation and spelling. "Any guffs in this department will probably land your application in the bin," warns Gregory. [...]"

The general consensus is your cover letter should be no longer than 1 side of A4 paper. "Three to four short paragraphs is generally enough to pique your reader's interest," advises Clare Whitmell, founder of JobMarketSuccess.com.

Give a compelling reason why you're interested in the company and position and don't just copy and paste from all your other cover letters or from your CV, she says. "Demonstrate briefly why you'd be a good fit for the role by including one or two career highlights that show you have the skills and experience necessary."

Tone

"Your tone all depends on the company and its culture," says Dasha Amron, founder of Career Coaching Ventures. If your target company is a bank, for instance, then the letter should be written in a style the financial industry requires, she explains. [...] "The right tone can be sourced through talking to the relevant people in the company, including a mix of more junior and senior people," Amron says.

"I can't emphasise the importance of understanding the company's culture more." If in doubt, a "professional neutral" tone is generally ideal, adds Whitmell.

Pay close attention to the job description

The job description will contain keywords which you should reflect back in your cover letter to ensure it survives the initial sift, advises McGuire. Imagine the recruiter sitting with their headline checklist of requirements in one hand and your cover letter in the other, she adds. "Your letter should make it easy for them to tick off their list." Keywords can relate to the job title (sales executive, project manager), the industry (financial services, retail, hospitality), and describe elements of the role (event management, customer service, data analysis).

"Locate these in the job description, make a list, and ensure they are integrated verbatim into your cover letter," says McGuire. But avoid repeating the exact terminology in every instance and be aware the job adverts and descriptions can contain an element of fluff. "Demonstrate your intelligence by sorting the wheat from the chaff," she adds. [...]

The sign-off

Make sure you firmly state your interest in the role before you sign-off, says Gregory. Express that you'd welcome meeting to talk further about your suitability, if they feel that you're of a sufficient match to the role. "Being short, sharp, to the point, positive but not too pushy is always the way forward," he adds.

Once you've written your cover letter, read it aloud and edit it ruthlessly, advises McGuire. "Hearing your words aloud will help you to identify any clumsy phrasing, and ensure your first communication with your target company is concise and eloquent."

Activity 3.B. Expert tips for a great cover letter

1. In pairs, read the article above and identify the pieces of advice on how to write a successful cover letter. Then organise them under the following rubrics:
 - a) preliminary research on role and company
 - b) format and language,
 - c) content,
 - d) signing-off.
2. Add 1 to 2 extra tips to each rubric, from you and your partner.
3. Present your findings to the class.

Activity 3.C. Cover letter language

Exercises created by your teacher with some input from the British Council.

1. Using the sentence-starters below, write 3 sentences that apply to a job you had.

- What was your job? → *As the [job title]... I [verb]...*
- What were your duties? → *I was tasked to ...*
- How did you do it? → *The nature of... meant that I ...*
- What results...? → *Within this role I achieved...*

2. Complete the sentences with prepositions: *at / in / into / of / on / to / with / from*.

I am writing ____ you with regard ____ the junior biochemist position you posted ____ your website. I am planning ____ enrol in post-graduate studies to specialize ____ haematology ____ the university ____ Amsterdam. I have always shown an interest ____ working ____ scientists ____ English-speaking backgrounds ____ pathologies related ____ human blood.

3. Complete the sentences with the correct form of the word in brackets.

- a) There are several _____ online for a variety of work placements. (*advertise*)
- b) She's always known that she wants to work as a _____. (*science*)
- c) He has an _____ offer from Bayer, which means he's definitely got a job, whatever his exam results. (*condition*)
- d) Playing music is interesting, but it's _____ to what I want to do after university. (*relevant*)
- e) At the animal sanctuary I had sole _____ for looking after the birds. (*responsible*)
- f) She _____ spends time helping out at her uncle's pharmacy. (*regular*)
- g) Helping out at the pet store _____ my decision to become a pharmacist. (*reinforcement*)
- h) Hands-on experience provides an _____ insight into any profession. (*value*)
- i) It was a unique opportunity to acquire new skills and _____. (*expert*)
- j) My previous employers would be willing to provide _____ to support my application. (*refer*)

4. Here are some useful expressions. With the help of your partner, try to fill the gaps.

Greetings	- Dear Sir / Dear _____ - Dear Ms / Dear _____ / Dear _____ [name] - To whom _____
Introductory sentences	- I am writing in connection _____ [job offer XXZZ...] - I have the pleasure of writing _____ [the position...]
Future contact and interviews	- If you have any _____ - I look forward to hearing from you soon. - I'd be delighted to discuss _____
Closing sentences	- Yours sincerely / Yours _____ - B _____

5. Here are some useful adjectives to talk about yourself. Find a synonym for each entry.

<i>junior</i>	<i>competent</i>	<i>versatile</i>	<i>prominent</i>
<i>varied</i>	<i>tailored</i>	<i>suitable</i>	<i>determined</i>
<i>savvy</i>	<i>sharp</i>	<i>curious</i>	<i>organized</i>
<i>applied</i>	<i>calm</i>	<i>daring</i>	<i>honed</i>
<i>dexterous</i>	<i>upbeat</i>	<i>open-minded</i>	<i>knowledgeable</i>

Activity 3.D. Writing a cover letter *

You recently designed a CV for a top executive or scientist. Gathered in the same teams, and in response to the same job offer, you are now tasked to write a cover letter for this same person.

OR, write a cover letter for a position that *you* plan on applying for.

Base your letter on the template below (inspired from uk.indeed.com, improved by your teacher).

**** Tips toolbox: A typical British cover letter ****

[First + Last name + professional title if applicable]

[Location]

[Date]

[Company name]

[Company address]

Dear [hiring manager's first name + last name],

[Express excitement for the position including the role title and the company name].

[Introduce yourself by explaining why you're applying for the job, how the job aligns with your career goals and/or what specifically draws you to the company].

[Explain why you'd be a good fit for the company]. [Address the important requirements in the job description by matching them with your skills, experience and achievements. Remember to use key words. Avoid repeating your CV but highlight relevant experience using facts and stats].

[Express gratitude]. [Summarise very briefly why you'd be a great fit for the role now and (if relevant) in the long term]. [Call to action (interview) + availability + contact method]

[Complimentary close],

[Signature]

4. Applying for a position: interview techniques



"My greatest asset is my ability to tell you exactly what you want to hear."

Activity 4.A. Discuss in pairs

1. With a partner, talk about the above cartoons and the questions they raise. For instance...
 - Is it relevant for employers to ask candidates who have no experience of working for their company how long they'd like to commit to it?
 - Should you always tell the truth during an interview?
2. Share your thoughts with the rest of the class.

Activity 4.B. Two truths, one lie

Make 3 statements about your hobbies, interests, strengths, or weaknesses. Two of the statements should be true but one must be false. Tell them to your partner, who has to guess which one is false. Switch roles.

Activity 4.C. The STAR method

STAR is a method of answering requests or questions that uses real-life examples of how candidates dealt with a specific work-related situations. STAR stands for:

- **Situation**: An event, project, or challenge you faced at work.
- **Task**: The tasks and responsibilities you had in the situation.
- **Action**: Steps you took to fix or complete the task.
- **Result**: Results of the actions you'd taken.

Here's an example...

- Request: *Tell me about a time when you performed well under enormous pressure.*
- Answer: *At my last job, my co-worker had a family emergency and needed to miss work for some time, and their super-important project was left unfinished. / My supervisor instructed me to take on the project, with no leniency on the deadline, meaning I only had a couple of days to complete a project that I was barely familiar with. / In order to deliver the project on time, I devised a plan to delegate my current work to my most able teammates, and I was granted the permission to execute it. / This allowed me to fully commit to the special project while keeping an eye on my own work targets. I finished the project on time and with complete accuracy. My supervisor appreciated my attitude and drive, and I was given several more projects after that, along with a more managerial post and a pay raise.*

Top 10 behavioral interview questions:

- I. Tell me about how you worked effectively under pressure.
- II. How do you handle a challenge? Give an example.
- III. Have you ever made a mistake? How did you handle it?
- IV. Give an example of how you set goals.
- V. Give me an example of a goal you reached and how you achieved it.
- VI. Describe an unpopular decision you made and how you handled it.
- VII. Give an example of how you work on a team.
- VIII. What do you do if you disagree with someone at work?
- IX. Share an example of how you were able to motivate employees or coworkers.
- X. Have you handled a difficult situation? How?

1. In pairs, read the questions above. Pick 2. Your partner picks another 2.
2. Share your choices and write answers to the questions using the STAR method.
3. Ask and answer the questions. Then switch roles.

Activity 4.D. The elevator pitch

You enter the elevator of your company and so does the International Marketing/ Research/ Product Development Director. You are the only two people in the elevator. You have 1 minute to introduce yourself and tell the director about a new project you are working on.

1. In teams of 3 to 4 students, select the department you work in and imagine a new project you are working on.
2. You have 10 minutes to develop a 1-minute speech.
3. Send your best speaker to meet the Director in the elevator. Other teams listen and mark the pitch out of 10.

~

To finish off, here is an article about what could (but fortunately won't!) happen to you during your a job interview...

Doc 4.1. Worst-ever job interviews: 'We had to crawl and moo'

BBC News, 3rd May 2024 – Michel Labiak

Lae arrived on time for her job interview at a lawyer's office in Bristol. But after 20 minutes, it had been cancelled and she was asked to come back the next day. She left upset, only to receive a message later saying the "cancellation" had actually been a test, which she had failed. She did not get the job. She says the experience was "totally bizarre" and that it spurred her to start her own business, where she makes sure to stick to a much more straightforward hiring style.

Lae is not alone. According to recruitment agency Hays, over half of people have had a negative experience during the interview process for a new job. The BBC has heard stories from dozens of people who went through odd, offensive, and off-putting interviews. They got in touch following the news that John Lewis is changing its recruitment process by allowing applicants to see interview questions in advance, in an attempt to make the process fairer.

So what can bad interviews teach us? And what can interviewees and interviewers do to make the experience less questionable?

Aixin Fu also had a bizarre experience when she applied for a student ambassador job for minimum wage at a university. During a group interview, everyone was asked to crawl around on their hands and knees and "moo like a cow". "We did that for about three to four minutes," she recalls. "At the time, I was quite annoyed. It was highly inappropriate. "But there was a bit of peer pressure because everyone else was doing it." The interviewer said they were trying to see if the candidates were "fun", though Ms Fu suspects that "maybe someone just had a bit of a power trip".

'So how many years do you think you've got left?'

Julie from Missouri in the US says she learnt that interviewers can sometimes be "really isolated" from what it's like to be an interviewee. This was her takeaway from a video interview she did in 2022 to be a part-time copywriter. At first, she felt it was going well. "I was ticking all the boxes," she says. But towards the end, the interviewer asked: "So how many years do you think you've got left in you?"

"I'm in my early 60s," Julie says. "I'm not going to retire for quite a while."

Ageism is not the only prejudice people may experience during interviews. Pearl Kasirye, a content marketing manager, says she was asked about her heritage during a second interview for a partially remote PR role at a fashion brand in Milan. Ms Kasirye lives in London and left Uganda to live and study in Europe as a child. She says the employer was insistent on paying her a Ugandan wage rather than a London wage for the remote work

because of her background. She chose to withdraw her application. "Where you're from, you have no control over," she says, adding that she has interviewed people herself since and is "so much more mindful" about her questions.

Sometimes prejudice can be accidental — or at least less explicit — but still just as difficult for the interviewee. Tom (not his real name) is an IT engineer who was once asked to film answers to questions for a warehouse assistant job, rather than talking to someone in a formal interview. Tom describes himself as on the autistic spectrum, though it is not something he likes to share with people. He says he needs clear instructions during an interview process and much prefers talking face-to-face, describing the filming process as "detached - like you're talking to a computer".

'Do you have children?'

Many people also told the BBC they had been discriminated against during hiring based on their gender. According to data from hiring platform Applied, nearly one in five women have been asked whether they have children, or plan to have children, during hiring processes. One of those is Applied's chief executive Khyati Sundaram, who says she has been asked "more times than I can count".

It is illegal for employers to ask candidates about their marital status, whether they have children, or whether they plan to have children. Despite this, Applied found the problem is even worse for women applying for senior roles, where two-fifths of women had been asked the same question. Ms Sundaram says one of the reasons for this is the perceived "economic liability" of pregnancy. "The higher the pay, the more maternity you have to pay while finding a cover, and they don't want the hassle."

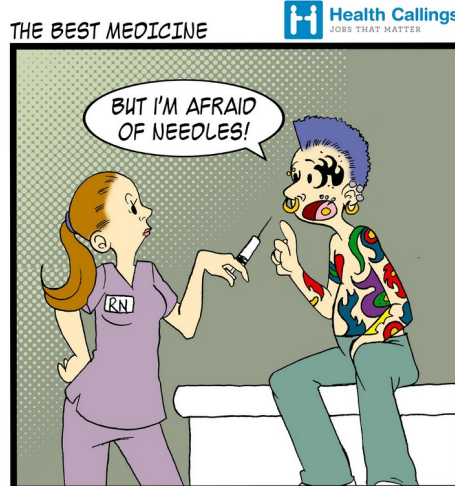
Sometimes the hiring process is bad not because of prejudice but because, as Ms Sundaram puts it: "There is no benchmark for what good looks like on the interviewer side." Her top tips for interviewers are to ask the same questions to every candidate and to design those questions with "marginalised groups" in mind.

As for Aixin Fu, she says her experience taught her to assert herself more in future interviews, especially if asked to do something "bizarre, unreasonable, or not a requirement for the job" — such as moo like a cow.

5. Drugs: administration and instructions



"This is one of those new miracle drugs. If you can afford it, it's a miracle."



Activity 5.A. Discuss in pairs

1. In pairs, choose a cartoon and explain your thoughts on it to your partner. Switch roles. Think about: - access to drugs, - their cost, - routes of administration and convenience.
2. Share your thoughts with the rest of the class.

Doc 5.1. Routes of Drug Administration

19th August 2021, solutionpharmacy.in — Sujay Mistry (modified by teacher)

Route of administration refers to the starting point for the drug's introduction into the body. [It] depends on several factors like the nature of the drug, its pharmacokinetics, and the nature and urgency of the medical condition. The main routes of administration are: **local** and **systemic**. The local route is further sub-classified into topical like the administration to the eye, ear, nose, etc. The systemic route is further divided into **enteral** and **parenteral**. [...]

_____ : It includes administration of a drug at the site where the desired action is intended. It includes topical administration in the oral cavity, gastrointestinal tract, rectum/ anal canal, eye, ear, nose, bronchi, skin, intra-arterial, injection in deep tissues e.g. joints.

_____ : It means through the gastrointestinal tract. It includes oral, sublingual, and rectal routes.

_____ : It includes drugs administered to enter the blood to produce systemic effects.

_____ : It means through routes other than enteral. It includes all types of injections, inhalations...

Activity 5.B. Which route is which?

- Match the following words to the definitions in Doc 5.1.: *enteral, parenteral, systemic, local*.
- Your teacher was in a creative mood and heavily edited the image below from GH Medical, a research initiative on cannabinoids lead by Dutch charity the Strain Hunters Foundation.
 - Fill in the orange boxes with the following routes: *oral, intravenous, sublingual, rectal/ vaginal, ocular, nasal, respiratory/ inhalation, cutaneous/ dermal/ transdermal*.
 - Next to each route, write the correct initials for each family the routes belong to: *L, S, E, P* (for *local, systemic, enteral, parenteral*).
 - Try to guess the bioavailability for each route, out of the following options: *100%, 10-25%, 13%, 6%, 35%, 6-40%, 10%*.
 - Draw a convincing representation of a human being to identify routes, then pick ten names of body parts out of the following list and write them on your drawing (or on illustration in 5.D., as you prefer) : *hand, ankle, chin, leg, wrist, hair, toe, eye, finger, knee, cheek, forehead, elbow, ear, heel, mouth, nose, foot, shoulder, neck, throat, thigh, arm, calf, Adam's apple, nape, skull, spine, jaw, chest, hip, buttocks*.



Activity 5.C. Which dosage form?

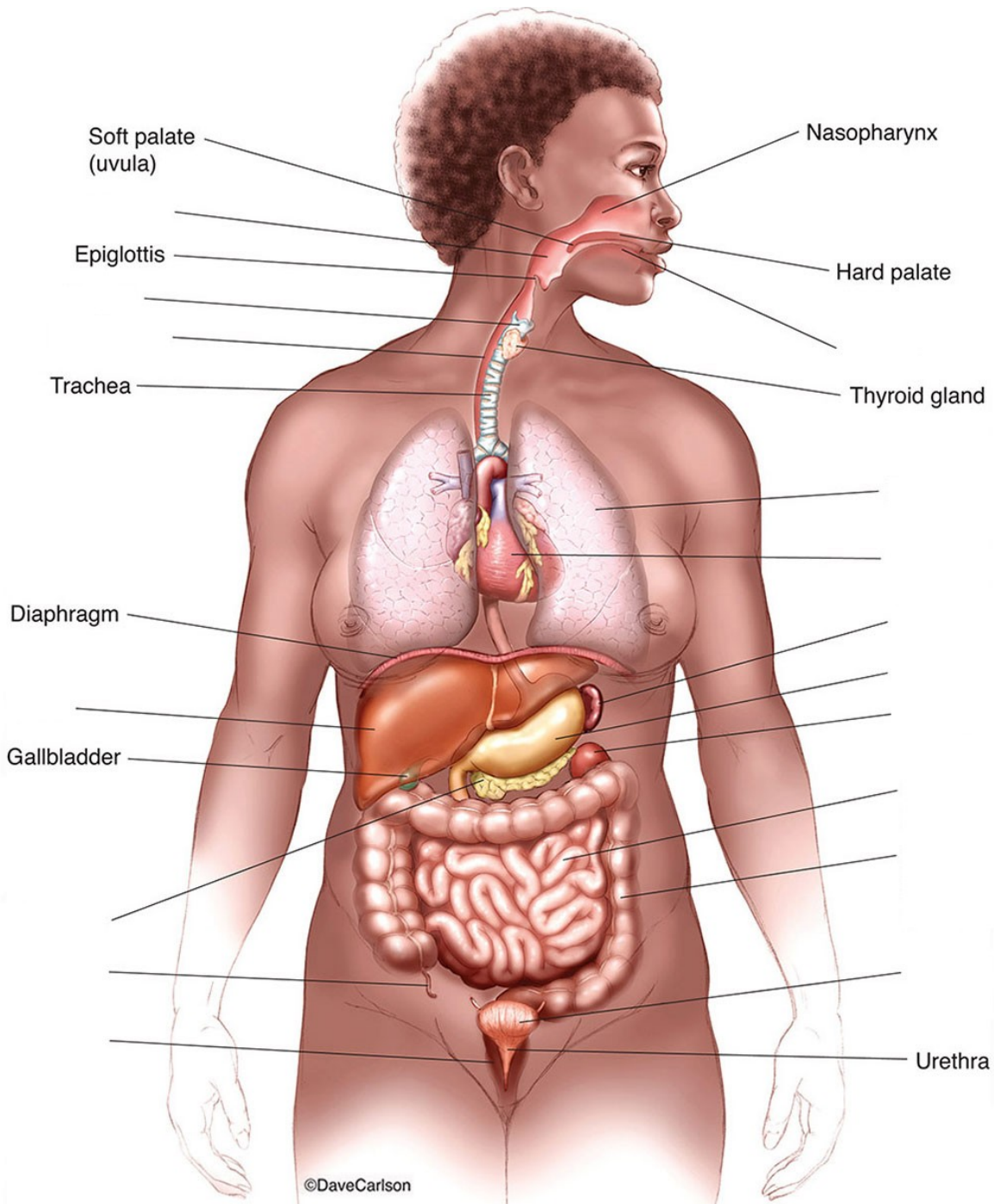
1. Match the definitions below with a route of administration and with the following dosage forms: *syrup, eye drops, lozenge, inhaler, capsule, elixir, emulsion, pill/ tablet, cream, patch, liniment, pessary, lotion, nasal drops/ spray, injection/shot/jab, ointment, suppository.*

<i>Route</i>	<i>Dosage form</i>	<i>Definition</i>
		A compressed, solid form, often round in shape.
		A concentrated, thick solution of sugar and flavouring.
		A cylindrical-shaped shell that breaks open in the body, releasing smaller elements.
		An oily, aqueous solution that's usually ingested.
		A sweetened mixture of alcohol and water.
		A solid intended to be dissolved slowly in the mouth to lubricate and soothe irritated tissues of the throat.
		A non-greasy preparation used to apply drugs on the area of the body, or to cool and moisten the skin.
		A greasy semi-solid which acts as a protective or lubricant layer.
		A solution or suspension applied to unbroken skin to cool and dry the affected area.
		A material or cloth placed on the skin.
		An oily liquid to rub on body parts to reduce pain.
		A liquid administered through a needle.
		A solid which slowly dissolves in the vagina.
		A solid conveniently administered to young children.
		An aqueous solution for introduction in the nose.
		A sterile solution dropped onto the eye's surface.
		A device used for inhaling medicinal aerosols.

2. What stands out from your findings above? Discuss with your neighbour and write down 2 to 4 observations about:

- number of dosage forms per route and why,
- dosage forms dedicated to local, systemic routes, or both,
- your own experience of prescribing or taking drugs.

Activity 5.D. Internal organs



Let's play a game.

1. Organise into 4 teams of 3-5 students. No phones, tablets or computers allowed!
2. Your teacher will project the above diagram on the whiteboard and give you a list of 4 words from the following: *appendix, stomach, larynx, rectum, large intestine (colon), pancreas, spleen, oesophagus, lung, pharynx, liver, tongue, bladder, heart, small intestine, kidney.*
3. Taking turns, each team picks one of their four words and asks the next team to place it on the diagram, until no word is left. Within teams, each player has to place at least 1 word.
4. The team who correctly places the most words from another team wins the game.

Activity 5.E. Expressing symptoms

There are mainly three verbs used to express symptoms: *to feel*, *to be* and *to have*.

- **To feel** and **To be** are used to talk about sensations and short-term conditions (hopefully!), that are mostly systemic.
- **To have** is used to talk about short or long term manifestations and conditions, that are mostly local.

1. In pairs, place the following words after the correct verb: *running a fever, achy, a sting, a runny nose, a dry mouth, chills, chest pain, numb, a blister, itchy, dizzy, nauseous, sick, a spot, a cough, short of breath, a sore throat, sleepy, back pain, sweaty, a rash, a sting, a bruise, weak, bloated, bleeding*.

2. Offer a French language translation for each symptom.

<u>I feel/ am...</u>	<u>Translation</u>
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.
9.	9.
10.	10.
11.	11.
12.	12.
13.	13.
<u>I have.../ I've got...</u>	<u>Translation</u>
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.
9.	9.
10.	10.
11.	11.
12.	12.
13.	13.
14.	14.
15.	15.
16.	16.

Activity 5.F. Patient-pharmacist dialogues

1. In threes, listen to the 3 dialogues on ecampus (1 each) and complete the tables below.

<u>Patient 1</u> <u>information</u> (age, allergies...)	<u>Context</u>
<u>Symptoms</u>	<u>Diagnosis</u>
<u>Treatment</u> (drugs/ devices, dosage, advice for application, side effects, recommendations...)	

<u>Patient 2</u> <u>information</u> (age, allergies...)	<u>Context</u>
<u>Symptoms</u>	<u>Diagnosis</u>
<u>Treatment</u> (drugs/ devices, dosage, advice for application, side effects, recommendations...)	

<u>Patient 3</u> <u>information</u> (age, allergies...)	<u>Context</u>
<u>Symptoms</u>	<u>Diagnosis</u>
<u>Treatment</u> (drugs/ devices, dosage, advice for application, side effects, recommendations...)	

2. In threes, offer translations for the following expressions, taken from the dialogues:

<i>Patient</i>	
<ul style="list-style-type: none"> - I'm dropping off a new prescription. - I need my refills. - Thanks for letting me know. 	
<ul style="list-style-type: none"> - I was wondering what I could do... - It really hurt/ hurts! - How long will it take... 	
<ul style="list-style-type: none"> - I was hoping you could help us. - Is it hard to use? 	
<i>Pharmacist</i>	
<ul style="list-style-type: none"> - Can you tell me more about that? - I did want to talk to you about one thing... - This drug will have a tendency to... - If you don't mind... - I think the best thing for now is to... - Let me grab that for you. - The reason I feel more comfortable with this recommendation is... - ... will further reduce... - If you have further questions, you can talk to your doctor. - If you want to walk with me back to the pharmacy. 	
<ul style="list-style-type: none"> - It looks like you have... - Do you have any allergies? - If you go to aisle 3, you'll find... - This will help with... and prevent... - Follow the instructions on the bottle. 	
<ul style="list-style-type: none"> - Hello, can I help you? - Let me take a look at... - Has she had this before? - I suggest you... 	

3. In threes, rewrite the following sentence starters in English, using different words, then explain what the underlined expressions are used to express.

- **Can** you tell me more →
- **If** you want to walk with me back to the pharmacy →
- **If** you go to isle 3, you'll find →
- **Let me** take a look at →

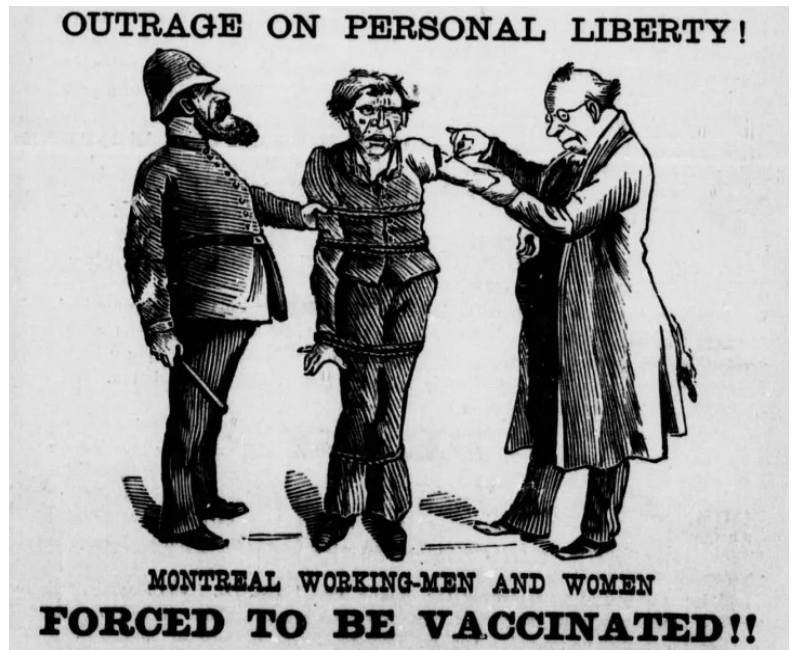
4. In threes, write and act-out a 2-to-4-minute patients-pharmacist dialogue. Use vocabulary and content from previous exercises (5.E + 5.F.1-2-3) and the internet for help.

- Decide on your roles: 1 pharmacist, 1 patient, 1 helper/ friend/ family member (imagine a couple, or two friends, or a mother and daughter, of different ages...)
- Define the patient (age, physical/ medical condition...)
- Structure your dialogue the same way as in exercise 1: create a context, choose 1 to 3 symptoms, establish a diagnosis and find a treatment.
- Write your dialogue in the form of notes and bullet points. Include expressions to express polite enquiry, order, suggestion and action-taking.
- Practice once in threes, then act out in front of the class.

6. Vaccination



Source: Public Health Agency of Canada, 20th April 2018



Source: *Covid-19 anti-vaxxers use century-old arguments*, Paula Larsson, University of Oxford, CNN Health, 22nd October 2020 (poster circulated during the 1885 Montreal smallpox epidemic)

Activity 6.A. Discuss in pairs

1. These two posters from Canada are over 100 years apart. Discuss the messages conveyed by both their text and pictures. Think about:

- the sign the boy is making (poster 1),
- who the people surrounding the tied man represent (poster 2),
- the mandatory/ voluntary nature of public vaccination policies,
- who the authors of the second poster may be,
- why vaccines (more than any other drug) are still a political topic today.

2. Share your thoughts with the class.

Activity 6.B. Video analysis

1. Watch the following videos in pairs and take notes: identify who the author/ speaker is, what their message is and who their audience is.

- Student A:

- [Novak Djokovic breaks silence over Covid vaccine refusal - BBC News](#)
- [World's largest study in COVID vaccine side-effects | ABC News](#)

- Student B:
- [Conspiracy Theorists Think Covid Vaccine Makes You Magnetic](#)
 - [Post-vac syndrome: 'There is no such thing as a vaccine without side effects' | DW News](#)
2. Taking turns, give a summary of each of your two videos to your partner.
 3. Share your findings with the class.
 4. Which video do you most agree with? Share your opinions and react to others.

Activity 6.C. Giving a speech

1. A teacher has invited the two of you to talk about vaccination to middle school students. Gather your thoughts and the opinions from the people in the 4 videos to write a short 3-4-minute speech which answers the question: *Why are vaccines still controversial today?* Tips:
 - remember to distribute paragraphs evenly between you and your partner in order to keep your speech lively;
 - your audience is young and bright, so you have to present in a style that is entertaining, clear, simple but not simplistic;
 - use hand gestures to convey your messages more graphically;
 - use at least one presentation technique you've learnt this year: hook, rhetorical questions, signposting...
2. Practice once, then give your speech to the class.

Activity 6.D. Smallpox and measles

1. In pairs, watch the following videos, take notes and write a short summary in list form.
 - Student A: [How we conquered the deadly smallpox virus - Simona Zompi](#)
 - Student B: [Why measles is back in the US](#)
2. Read your summary to your neighbour (3-5 minutes), then listen to theirs.

Activity 6.E. Malaria

3. In pairs, listen carefully to [this video](#), and while you do so, add the following signs to the transcript below: 🟡 (pauses), 🔼 (when voice goes up), 🔽 (when voice goes down).
4. Dubbing exercise: this time, play the video with the sound muted. Read the transcript, marking pauses and sentence stress. Take turns to read/ dub one paragraph each.
5. Listen to your partner's pronunciation. Then give them feedback and a mark /10.

[0:00] *Sophie Raworth* - A new vaccine for malaria developed by Oxford University is being hailed as a breakthrough that could save millions of lives. It's the second malaria vaccine to be developed but crucially it's considerably cheaper and will be produced on a massive scale with up to 100 million doses a year that should vastly reduce the toll of a disease that claims hundreds of thousands of lives every year, almost all of them children in Africa. Our medical editor, Fergus Walsh, is here with all the details.

[0:28] *Fergus Walsh* - Thanks Sophie. Well malaria has been causing untold human suffering for millennia. The parasitic infection is spread by mosquitoes. Africa is worst affected, particularly the areas marked in red here, which account for 95% of the global burden of malaria. In 2021 there were an estimated 234 million cases and 593 000 deaths from malaria in Africa, most of those were children under the age of five.

[1:05] *Fergus Walsh* - The Oxford vaccine is called R21 and requires children to have four doses. Trials run by Oxford's Jenner Institute show it's around 75% effective at preventing malaria. Crucially, the world's biggest vaccine manufacturer, the Serum Institute in India, has agreed to produce a hundred million doses a year of the Oxford jab at between two and four dollars a dose. This will be Africa's second malaria vaccine. The first, RTS-S, from former giant GSK, costs about twice as much. Since 2019 just 1.7 million doses have been administered, so the new Oxford vaccine could be delivered at a much bigger scale.

[1:55] *Dr Tedros Adhanom Ghebreyesus (WHO)* - Today is a great day for health, a great day for Science and a great day for vaccines. As a malaria researcher, I used to dream of the day when we would have a safe and effective vaccine against malaria. Now we have two.

[2:14] *Fergus Walsh* - Today's announcement follows a major trial of the Oxford vaccine involving nearly 5000 children across four African countries lasting several years. Our correspondent Ann Soy witnessed some of the children getting booster doses in Tanzania, and has this report.

[2:34] Ann Soy - A life-saving job giving protection against one of the biggest killers of African children, malaria. It has taken decades to find. 3 year old Hajra was one of hundreds of Volunteers in the clinical trials. Her mother, 39 year old Mozani Sayf, had a compelling reason to enrol the youngest of her six children in the study.

[2:59] Mozani Sayf - I lost my nephew. He was only four when he died from malaria, that's why when I heard that there was a malaria vaccine trial, I said I wanted to participate, because it will help us.

[3:14] Ann Soy - Here in Bagamoyo, 600 children took part in the trial. Experts are urging people to continue using the proven methods of preventing infection, even with the discovery of a new vaccine. The results of the final phase of the research surpassed expectations.

[3:34] Ally Olotu - What we've shown in one year after the three doses is that the efficacy is about 75%, again well above the goal set by the global Malaria community, and this is really exciting.

[3:48] Ann Soy - The job is far from done. The vaccine now needs to be delivered to villages and towns across Africa. For families like Mozani's, it will bring the much needed relief from disease and keep her children alive. Ann Soy, BBC News, Bagamoyo.

[4:08] Fergus Walsh - The next step is ensuring there are enough health care workers across Africa to administer these Jabs to the children who need them. And it's worth remembering the vaccines are not a magic bullet. Other malaria control measures like bed nets will remain vital.

7. Case study of a pandemic: AIDS

Note: "HIV" is pronounced as the 3 individual letter H-I-V (same as in French), whereas "AIDS" is pronounced [eidz], as though it was a word (... same as in French!)

Activity 7.A. Discuss in pairs

Take a look at the pictures below. Explain what you can see and its probable causes.

- Student A:



- Student B:



Activity 7.B. Web quest

1. Still organized in pairs, you're going to browse two web pages each.

- Student A, go to www.who.int/news-room/q-a-detail/hiv-aids and www.who.int/health-topics/hiv-aids#tab=tab_1, and take notes to fill in the sections below:

Definition of HIV & Definition of AIDS

Symptoms of HIV, of AIDS

Prevention of HIV, of AIDS

HIV testing

- Student B, go to: www.unaids.org/en/resources/fact-sheet and www.niaid.nih.gov/diseases-conditions/hiv-vaccine-development, and take notes to fill in the following sections:

The HIV/ AIDS pandemic: key facts and data (pick 1-4 items and say explain your choices)

Treatments against HIV & AIDS

Investment into research on HIV & AIDS

A vaccine against AIDS

3. Use your notes to prepare a short oral presentation about what you've read.
4. Give the presentation to your partner, then listen to theirs.

Activity 7.C. Video quest and production

This time you'll organise in threes rather than pairs.

1. Watch one of the three videos and take notes. Use the questions below to guide your quest. Once you're finished, give your partners a short oral summary. Then listen to theirs.

- Student A: www.youtube.com/watch?v=Pn2FcxGdYLA

- symptoms, death rates, numbers
- the state of knowledge at the time: what they knew, what they didn't know, what they believed but we know is false
- perceptions, fears related to the disease and changes it brought

- Student B: www.youtube.com/watch?v=ETsCtPDMzoA

- symptoms, death rates, population affected
- social/ psychological consequences of AIDS
- historical timeline of the fight against HIV & changes in medical care
- role of the gay community in the AIDS epidemic

- Student C: www.youtube.com/watch?v=ULrqL_aYoW0

- What event is reported?
- numbers and symptoms
- perception of the disease and of HIV-positive people
- How has the epidemic affected the gay community?

2. Recap your findings as a group. Discuss the following.

- Facts you didn't know, that you learnt thanks to the videos.
- Your appreciation of HIV-positive people: are they discriminated against nowadays?
- Public misconceptions about the virus: do we still need to spread awareness?

3. David Weissman (student C), you have been tasked by BBC Learning English to create a 3-5-minute video that explains how living with AIDS was in the 1980s. You've decided to interview Anthony Fauci (student A), AIDS researcher and former CDC director, along with Dab Garner (student B), HIV survivor and activist. As a team, write your dialogue in the form of key words and bullet points. Use relevant information from the above videos.

4. Act your dialogue to the class.

PS: Next page you'll find the transcriptions from the three videos, to help you out.

- From The Archive: Early days of AIDS crisis in San Francisco in 1982

Acquired Immune Deficiency Syndrome, or AIDS, started as an exclusively gay disease. This depression of the immune system can lead to a rare form of cancer, Kaposi's sarcoma, which shows up as those purplish spots. This cancer has a death rate of 80% two years after diagnosis. AIDS also causes unusual infections with death rates of 100% in two years. This is not a benign disease, nor is it limited to gays as we are now finding out. So far, 75% of cases are homosexuals, but 14% are heterosexual drug addicts. 5% are non-drug using heterosexuals with no other risk factors, 5% are Haitian refugees and 1% are hemophiliacs who presumably caught it from blood transfusions. Females who are partners of male drug-addicts can get the disease and also infants of female drug-addicts.

What we know so far: AIDS appears to be a virus transmitted through blood, semen, saliva, and other body secretions. There is a blood test for the disease. A study of the gay population in New York came up with some horrifying figures.

"It has been done in New York and they found that as many as 85% of otherwise healthy gay men showed evidence of imbalance in these tests of the of the immune system. We suspect from our experience here that that we would find a similar finding."

Given the incubation period of two years, there could be a major epidemic in the near future.

"Do you suspect that it's possible that this disease could be spreading from the gay population in San Francisco to non-gays in San Francisco, and then so on to other cities?"

"I suspect it is spreading and I suspect it will continue to spread to other areas of the country."

Walking around the hospital today and talking to doctors and nurses, one gets a feeling that there is some fear among health professionals here about contracting this disease themselves.

Special precautions are now beginning to be applied to hospital personnel handling AIDS patients. For instance, gloves are worn when drawing blood. Although San Francisco General does not require gowns and masks in handling AIDS patients, the Center for Disease Control in Atlanta is now recommending that precaution to protect doctors and nurses.

"There's a lot of anxiety, all of us that are taking care of the patients go through periods of personal anxiety about getting the disease. We don't know what we're dealing with and we don't know how it's spread."

One major question raised is the safety of blood transfusions. The test for AIDS costs \$160: requiring it on all donors would make blood prohibitively expensive. Some have suggested not allowing gays to donate blood, but of course non-gays can have the disease also. What about the new hepatitis B vaccine? It's made from the blood of gay men. Its safety is now being questioned.

"My understanding is that it's coming from gay men who have been victims of hepatitis B, which is the same community where the AIDS is most rampant now. Since we don't know just what the infectious particle is, I know there is some hesitancy now in the various departments, particularly my infectious disease (department) here at the hospital, who should be receiving the vaccine."

- [HIV survivors reflect on 40 years of AIDS epidemic | ABC News](#)

When the first report from the CDC's Morbidity and Mortality Weekly report reported a very curious situation of five men, all gay from Los Angeles, who were presenting with an unusual pneumonia, it was at that point, 40 years ago, where I can tell you: chills went up and down my spine. Being an infectious disease person, I said, "Oh my goodness – this has to be a brand new infection."

These young men often were in hospitals. We would see them in hospitals, very ill and they had been completely rejected by their families. Sometimes we would call parents and tell parents at the same time that their son was gay, and had perished from HIV.

There were no laws backing people with HIV. So someone could be fired from their job, kicked out of their place of residence and be on the street 24 hours of people finding out they were positive.

We're considered miscreants and we're considered uber-promiscuous so it's always a moral Olympics when it comes to black women and HIV. It's almost as if we did something to warrant getting this diagnosis.

When I began taking care of patients, starting in 1981-82, virtually all of my patients died.

This is a very puzzling syndrome and scientists like myself and others of my colleagues are taking different approaches. We didn't know what it was so it was a disease, mysterious, no name yet.

We had only heard one instance when my partner became extremely ill, was 104 temperature, and we rushed into the hospital. I had no idea that once they took him back, I would never see him again.

Unfortunately, seven months later I started running a bad fever. I was originally diagnosed in San Francisco on February the 14th, 1982. So I've been living with the HIV virus at least 39 years, this February is my 40th year.

One of the things that became very clear is that when you're dealing with a brand new outbreak and evolving pandemic, you learn things in real time. It was just literally a matter of several months, as you saw injection drug users, hemophiliacs recipients of blood transfusions, the female sexual partners of men who had this disease and then finally children born of women who were likely infected.

For anyone out there that has never been in quarantine, it is one of the most lonely, dehumanizing, scary places to be and I wouldn't wish it on my worst enemy. When I miraculously started being better, it was about 10 days later, I had a guilt trap for a long time of while I was out living not too far. It's called survivor's guilt.

You know the biggest turning point truly was 1996 because that was when we had enough highly active HIV medications that you could put together that you could actually really combat the virus and get the viral load in the body from HIV down to undetectable levels.

We gradually over a period of years, developed 1, 2, 3, 4, 5, then a combination of highly potent anti-retroviral drugs that have literally transformed the lives of persons with HIV.

[4:05]

- 'We Were Here' Revisits San Francisco's 80's AIDS Epidemic

Finally tonight, remembering the early days of the AIDS epidemic and the toll it took on so many. That's the focus of an award-winning documentary that premieres on PBS program "Independent Lens" Tonight. News Hour correspondent Spencer Micheals talked with the filmmaker in SF.

San Francisco's Castro District has become a little more heterosexual, a slightly upscale shopping street since the days in the 80s and 90s when AIDS was devastating the gay male population that gathered here. But in America today, when the disease is mostly controlled through drugs, the Castro remains a focal point of gay life: still the place gay youngsters come to find the freedom and acceptance that is sometimes hard to find at home.

I think that Castro is really still probably the gayest neighborhood in the world.

It's where David Weissman produced and directed his film "*We were here*" that recounts personal stories of the AIDS epidemic.

It became clear to me that the people who had lived through the epidemic in those years had stopped talking about it and the people who didn't live through that time really knew very little about the origins of the AIDS epidemic and what our community went through in the early years. So it seemed like with the passage of time since the medication started working and the death rate started to go down, it was a good time to look back at that era and try to make sense of what actually happened, what we actually went through as a community.

Within a 15-year period, nearly 20,000 people died in this city alone, after AIDS swept through the gay community starting in the early 1980s.

Even in the middle of the epidemic, I came back to San Francisco after living in Europe for a year, and I expected Castro streets to have tumbleweeds blowing down and to be a ghost town. But one of the things that's most amazing in looking back at this is that even in the midst of terrible horror and terrible trauma, life has to go on. You don't really have a choice.

For his film, Weissman chose five people who lived through that horror to tell in a simple, straightforward way what it was like.

I remember looking in the window of Star pharmacy and there were these little Polaroid photographs that this young man had made of himself. They released 3, maybe 4 of them. The first one was like this... and inside, these big purple splotches.

I've been around for the entire epidemic. The only thing I can liken it to is a war zone. But most of us have never lived in a war zone. But it was! You never knew where the bomb was gonna drop.

We're forced to deal with this unbelievable circumstance of a community that in addition to being hated and under attack, is now forced alone to try to figure out how to deal with this extraordinary medical disaster. We are not some network of people who just like to have sex. We are not some ephemeral subculture that comes and dissolves and goes. This is a community that was tested in a way almost no community on Earth has ever (been) tested.

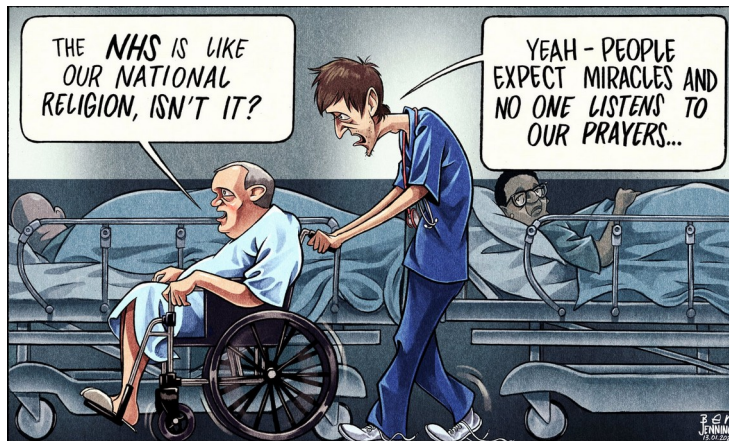
Weissman was part of the scene in those days and recalls how alone the gay community felt.

There was a tremendous amount of homophobia and all of a sudden this epidemic comes, that is sexually transmitted and no one came to our defense except our own communities.

You talk about discrimination and bigotry, one of the characters in your documentary said that some of the people felt they were glad that gays were dying.

Yeah. I think for many people back in that era, they saw that AIDS was God's punishment on us and they had no interest in helping us and they saw that, well, who cares if the gay people die? [3:55]

8. Healthcare systems: the USA and the UK



MATT



'A doctor will see you as soon as the NHS starts receiving the weekly £350m Brexit cash'

Activity 8.A. Discuss in pairs

1. Pick two cartoons from the four above. Compare what you know about healthcare in the USA and in the UK with the two cartoons you've picked. Share your opinions with your partner on how the systems are funded and the quality of care provided.
2. Discuss the following questions:
 - What happens in your country if someone cannot afford an operation?
 - Should healthcare be free for certain age groups?
 - Should you get the same healthcare abroad as you do at home?
3. Make a bet with your partner on the world ranking of the USA in terms of the quality of its healthcare system. Is it the best in the world? The third? The tenth? ...
4. Online, check where the USA stands in the 2024 Legatum Health Index. Any surprises?

Activity 8.B. Video summary (USA) *

1. You are going to watch a video called "Joe Biden takes steps to widen Americans' access to healthcare". In pairs, try to guess:

- how Joe Biden did this;
- what government programmes may be involved;
- whether he was successful.

2. Before you watch the video, let's clarify a few terms from it. Discuss what the following are with your neighbour:

- *corporate health insurance*

- *government-subsidized health insurance*

- *The Affordable Care Act*

- *Medicaid*

3. Working in pairs, open the [LINK HERE](#), watch the video, take notes, and summarize it.

4. On a voluntary basis, share your summary with the class.

*** *Tips toolbox: How to summarize a video* ***

- Before the first viewing, anticipate the content of the document from its title.
- Watch the video but also listen to it.
- During each viewing, only write key words and use symbols to link them (arrows, circles, crosses...)
- After the first viewing, check if you have the answers to the basic questions:
Who? What? Why? Where? When? and How?
- During the time allocated to writing, first build the outline of your summary by ordering your notes and bunching up ideas into paragraphs.
- Then use linking words to make logical connections between paragraphs.
- In your introduction, announce the nature of the document, its author, source, and date if mentioned.
- Conclude with the take-home message of the video.
- Your summary must not include the following: anecdotes, comments about how the video is organized or what the journalists do, quotes, imagery, "we" (as in "we can see that.."), extra knowledge, personal opinions and contracted forms.

5. The following video summary has been jumbled up. Put the paragraphs in the right order, and underline the following elements : source, date, main theme, linking words, take-home message.

- a. *More than half of Americans depend on their employers to sponsor their health insurance. With millions of people now unemployed because of the pandemic, more middle class families are now struggling with low income and no way to pay the doctor, the Biden administration's help.*
- b. *This 2021 Al Jazeera news report is about the access of the American middle class to healthcare after millions lost their jobs during the pandemic.*
- c. *..... Jo Biden has widened Americans' access to healthcare, a lot of middle-class Americans feel like they have been left behind.*
- d. *....., Joe Biden has signed an executive order to allow some of those people to buy government-subsidised health insurance through the Affordable Care Act., the help won't reach all who need it. It is still too expensive for Audree Hall's family, and they don't qualify for government's programmes intended for the poor. They are in the gap of the uninsured middle class.*
- e. *Audree Hall was diagnosed with skin cancer three months before losing her job. work-sponsored insurance covered her surgery, she is now uninsured and unable to pay for follow-up appointments., her husband has also been diagnosed with Covid. She would like to get the assistance to get the right healthcare. 28 million Americans did not have health insurance before the pandemic. That number has now grown by 5 to 10 million.*

6. Fill the gaps in the summary with the following linking words: *moreover, as a result, even though, although, in spite of, nevertheless.*

7. According to what they express, place the linking words in the table. Then contribute one more entry to each column.

Consequence	Contrast/ concession	Addition

Activity 8.C. Compound adjectives

The video summary you have just reorganized in 8.2.5. contains many compound adjectives. These are convenient word groupings that help express an idea clearly and economically.

Compound adjectives often have the following structure: adjective/ adverb/ noun + past participle. Other possibilities include:

- Adjective/ noun + adjective : a dark-blue uniform
- Adjective/ adverb/ noun + present participle: an old-looking hospital
- Adjective + noun-ED: a bad-tempered doctor
- noun + noun + adjective: a fifteen-year-old boy
- noun + noun: a two-hour operation

1. Read the video summary again and find the compound adjectives that correspond to the following paraphrases:

- insurance that is sponsored by work →
- health insurance that's subsidized by the government →

2. Form a compound adjective for each case below.

- This patient has a strong will. →
- The pharmacist has a high level of education. →
- This program lasts two months. →
- Studying to be a pharmacist consumes a lot of time. →
- This hospital has broken the record for most child deliveries in one year.
→
- This scheme is supposed to help you save money. →
- This news broke my heart. →
- This medical device is as thin as paper. →

Activity 8.D. Video summary (UK)

1. You are going to watch a video called "UK celebrates 70 years of National Health Service". In pairs, try to guess:

- more or less when the NHS was created,
- why it was created.

2. Before you watch the video, let's clarify a few terms from it. Discuss what the following are with your neighbour:

- *universal healthcare*
- *national insurance*
- *wards*
- *the medical establishment*
- *A&E*

3. Working in pairs, open the [LINK HERE](#), watch the video, take notes, and summarize it.

4. On a voluntary basis, share your summary with the class.

Activity 8.E. The NHS: an Americanized future?

1. In pairs, watch the following video and identify the three problems it exposes. Then read the following extract.

- video: [How the government plans to address the NHS staffing crisis](#)

- extract, from the novel [This is Going to Hurt](#), Adam Kay, 2017, Picador:

I would always feel tremendously proud to say that I worked for the NHS – who doesn't love the NHS? (Well, apart from the Secretary of State for Health.) It's unlike any other national asset; no one talks in fond tones about the Bank of England or would think any less of you if you suggested suing Cardiff Airport. It's easy to work out why: the NHS does the most amazing job and we've all benefited from it. They delivered you when you were born and one day they'll zip you up in a bag, but not until they've done everything that medical science will allow to keep you on the road. From cradle to grave, just like your man Bevan promised back in 1948.

They fixed your broken arm on sports day, they gave your nan chemo, they treated the chlamydia you brought back from Kavos, they started you on that inhaler, and all this wizardry was free at the point of service. You don't have to check your bank balance after booking an appointment: the NHS is always there for you.

On the other side of the fence, knowing you were working for the NHS took the sting out of so many things about the job: the vicious hours, the bureaucracy, the understaffing, the way they inexplicably blocked Gmail on all the computers in one hospital I worked at (thanks, guys!). I knew I was part of something good, important, irreplaceable, and so I did my bit. I don't have an amazing inbuilt work ethic, it's not applied to anything I've ever done since (as my publisher will attest), but the NHS is something special, and the alternative is horrifying.

We should see the skyscraper-high bills of America as the ghost of Christmas future* when it comes to NHS privatization. Politicians may act dumb, but they're not, and we'll be lured very stealthily into this particular gingerbread house. We'll be promised it's only little corners of the NHS that are changing, but there'll be no trail of breadcrumbs** to help us find our way back through the forest. One day you'll blink and the NHS will have completely evaporated – and if that blink turns out to be a stroke then you're totally screwed.

**The ghost of Christmas Future* is a reference to Charles Dickens' *A Christmas Carol*: it is a metaphor for death and the legacy that we leave for others.

***The trail of breadcrumbs* is a reference to the tale of Hansel and Gretel: they are taken deep into the forest by their parents in the hope they will not find their way back. However, clever Hansel has left a trail of breadcrumbs to help them return.

2. In pairs, discuss the viewpoint both this text and the video share regarding the NHS. Come up with one key word to summarise this viewpoint. Do you feel the same about your own country's healthcare system?

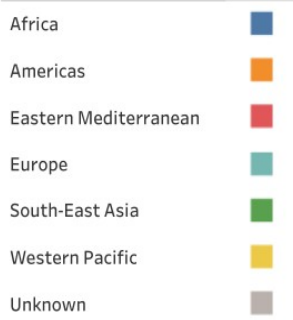
3. Read the last paragraph from the extract again and discuss the following: Do you think, like Adam Key, that the privatization of healthcare is undesirable? Why?

9. Clinical trials – the landscape today

Doc 9.1. Clinical trials by year, country, WHO region and income group

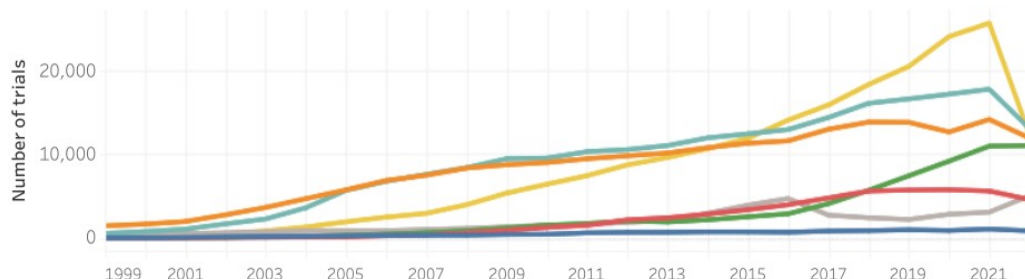
World Health Organisation, Global Observatory on Health R&D, February 2023

click to select a region



A. Number of trials by year and WHO region (1999 to 2022)

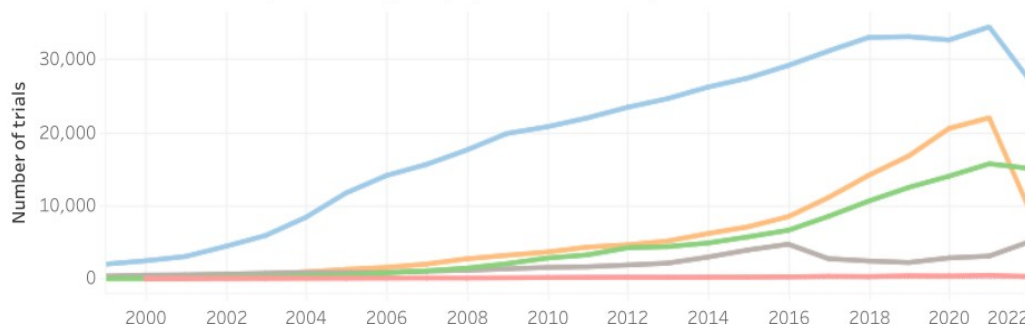
select a year to see year-specific information in chart C



click to select an income group

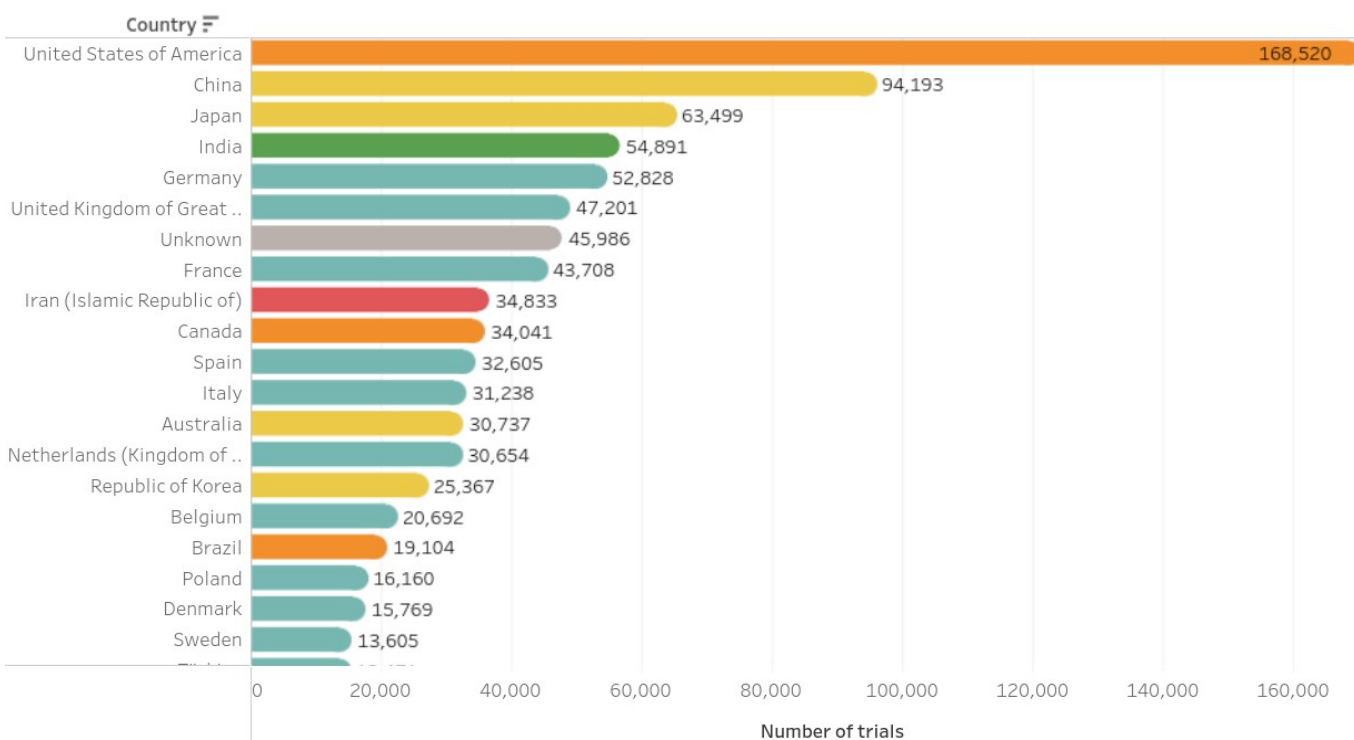


B. Number of trials by income group (1999 to 2022)

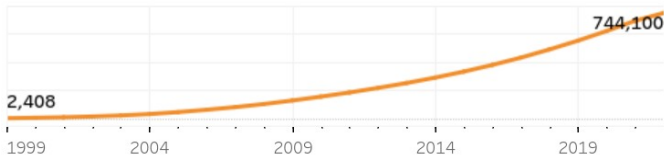


C. Number of trials by country or area

select a country to see trials per year in chart A

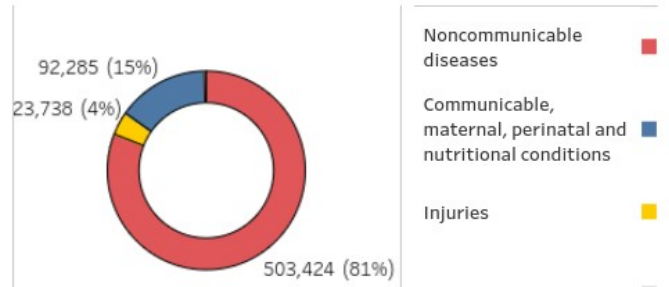


A. Trials per year- World (1999-2022)

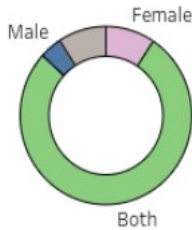


D. Trials by health category

Number of unclassified trials : 122,365 (16.44%)



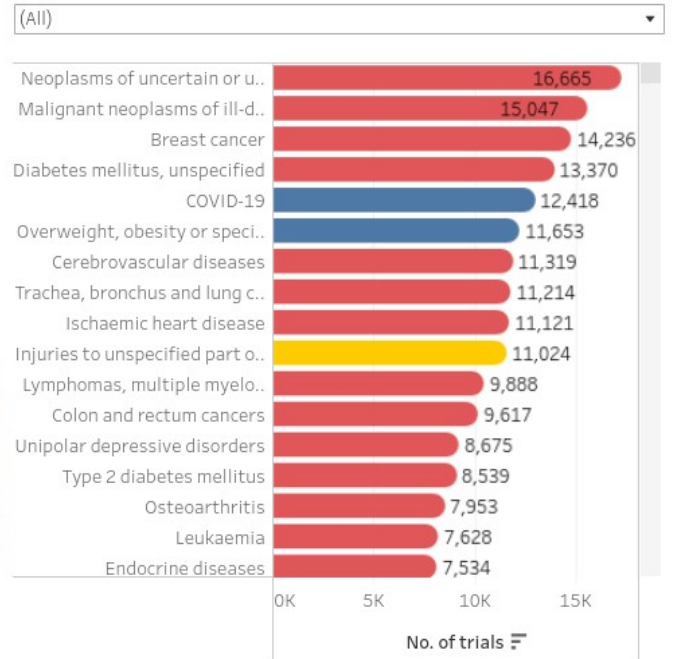
F. Trials by sex of participants (as in inclusion criteria)



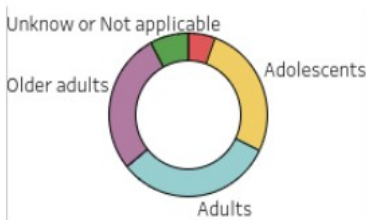
Sex	No. of trials	%
Both	576,765	78%
Female	69,150	9%
Male	30,885	4%
Unknown	67,300	9%

D.2. Trials by disease or condition

(use drop down to search)

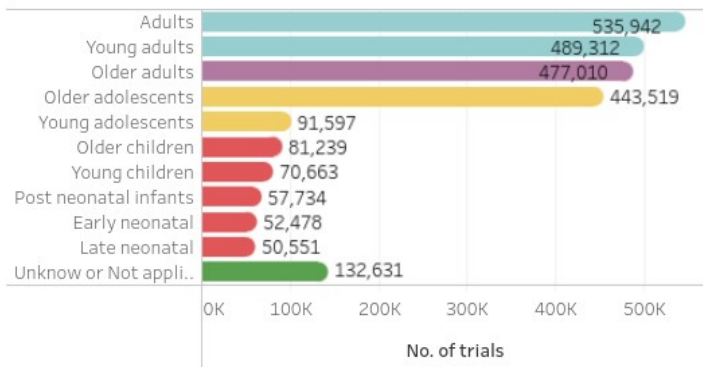


G1. Trials by age of participants (as in inclusion criteria)

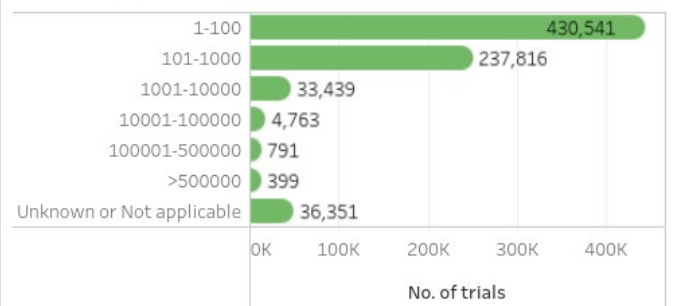


Age	No. of trials	%
Adults	541,498	73%
Older adults	477,010	64%
Adolescents	453,183	61%
Children	93,479	13%
Unknown or ..	132,631	18%

G2. Trials by life stage of participants (as in inclusion criteria)



H. Trials by (anticipated) number of participants



Activity 9.A. Present data *

1. Pick two people in the room and form a team of 3.
2. Analyse the following documents according to your team number.

Teams 1, 4
Docs A, B, C, p. 42

Teams 2, 5
Docs D, D2, H, p. 43

Teams 3, 6
Docs F, G1, G2 p. 43

3. Write a 3-4-minute presentation of your analysis (read the next page for valuable tips). Then give your presentation to the class.

*** Tips toolbox: How to present data successfully ***

- Introduce documents WITHOUT repeating the title, and WITH mention of the source (author and publisher, if different), date of publication, time range of data and country/ location/ population connected to the data.
- As a rule of thumb, order your findings from the general to the specific.
- In your introduction, present ALL documents briefly (not just the first one), explain the topic they deal with, and give the audience the outline of your talk.
- Structure your presentation by creating transitions between documents.
- Your presentation will be much more interesting and dynamic if you COMPARE documents (and not just present them). Therefore, while eliciting a particular document, you are encouraged to make quick references to the other one(s).
- Remember to conclude with a very brief summary of your findings, and if relevant, by expressing your personal opinion.

*** Tips toolbox: Vocabulary to present data ***

nouns

- a graph/ chart: *un graphique*
- a bar graph/ chart: *un histogramme*
- a line graph: *graphique linéaire*
- a pie chart: *un camembert*
- a flow chart: *un organigramme*
- a table: *un tableau*
- a map: *une carte, un plan*
- an axis: *un axe*
- horizontal axis: *l'abscisse*
- vertical axis: *l'ordonnée*
- a line: *une courbe*
- a dotted line: *une ligne en pointillés*
- a series: *une série*
- a hashed/ shaded area: *zone hachurée*
- a peak: *un pic*
- a low: *un point bas*
- a rise: *une augmentation*
- a drop/ fall: *une baisse*

verbs

- to fluctuate: *fluctuer*
- to reach: *atteindre*
- to rise/ increase/ grow: *augmenter*
- to climb (up to...): *grimper (jusqu'à...)*
- to keep on growing: *continuer à croître*
- to pick up again: *reprendre à la hausse*
- to soar: *grandir/ grossir*
- to skyrocket: *monter en flèche*
- to double: *doubler (x2)*
- to drop/ decrease/ fall: *baisser, chuter*
- to decline, to wane: *décliner*
- to hit a low: *atteindre un point bas*
- to plunge/ plummet: *dégringoler*
- to level off: *se stabiliser*
- to reach a plateau: *atteindre un palier*
- to stagnate: *stagner*

expressions

- an upwards trend: *tendance à la hausse*
- a downwards trend: *tendance à la baisse*
- the trend was reversed: *la tendance a été renversée*

Activity 9.B. Step by step

1. Stick with your team buddies, look at the table below and open your web browsers.

Team 5	Team 1	Team 2	Team 3	Team 4	Team 6
Pre-clinical	Phase 1	Phase 2	Phase 3	Phase 4	Repurposing

2. Find information and make a short 3-minute presentation of the phase you've been assigned. Think about: goals, procedures, number of participants and locations, benefits and risks, possible outcomes.

Doc. 9.2. Patients losing out amid slump in NHS clinical trials, warn top clinicians

The Guardian, 27th February 2023 – Hannah Devlin

UK falls from fourth to 10th place in phase III trials amid 'ossified' bureaucracy and stretched health service [...]

Sir John Bell, the **regius professor** of medicine at the University of Oxford and a government life sciences adviser, said the UK's approach needed "a full **overhaul**, top to bottom" to prevent a collapse in the number of clinical trials being conducted in the NHS. "I don't think there's any doubt that companies are choosing not to evaluate their drugs in the UK," he said. "The risks [to patients] are much bigger than have been alluded to."

The intervention comes after the government launched an independent review led by the **former** health minister James O'Shaughnessy into why the NHS had seen a 44% drop in participants recruited to commercial clinical trials in the past five years. The UK is rapidly losing ground to countries such as Spain, Poland and Australia, falling from fourth to 10th internationally for phase III trials.

Reduced access to trials is particularly concerning for patients with limited routine treatment options, such as the roughly 3.5 million people living with rare diseases and patients with dementia and advanced cancer. Beyond clinical benefits, the NHS makes money from conducting commercial trials. "You get the drugs for free, you get the treatment for the control arm for free, the NHS **rides for free** for everyone in the trial and pharma pays pretty well to get these trials done," said Bell.

However, Bell said bureaucracy that had been simplified during the pandemic to fast-track trials had "crept back into the system and ossified" and the overstretched NHS workforce was losing capacity for research. "The system needs a pretty serious revamp," said Bell. "[The government] is not going to fix this by just turning the handle a bit harder."

Official figures show just 52% of trials in the NHS are **running to schedule** – a significant improvement in recent months but still some way from the target the Department of Health has set for 80% trials being delivered to time and target by June. The department has directed funders to shut down any trials that have missed their target to start recruiting by

more than 90 days, with one in 10 trials being monitored under its Reset Research programme set to close prematurely. Five hundred trials have been closed under the initiative since May last year.

Other senior clinicians also raised concerns. Prof James Rowe, a senior dementia researcher at the University of Cambridge and consultant neurologist, said the UK's lengthy approvals process could leave clinicians and their patients frozen out of international multicentre trials. "If it's going to take you 12 months to get started in the UK, by the time you get the green light the trial is effectively closing for recruitment internationally. It could be futile to begin the work to set up," he said. "It's a great pity as there's fantastic progress in the dementia world. There are 300 clinical trials for dementia worldwide. The UK should be at the forefront of this, not putting up barriers."

Prof Paul Stewart, the vice-president (clinical) of the Academy of Medical Sciences and of the University of Leeds, said research tended to be viewed as a luxury rather than an integral part of the NHS's mission. "As I reflect on my 40-year career in the NHS, there have always been challenges, but now the crisis has come to a head in terms of a research capacity issue. The current environment is extremely challenging," he said.

Dr Ian Walker, of Cancer Research UK, said the pandemic continued to "cast a long shadow" over clinical research. "As **backlogs** for diagnosis and treatment grow, NHS staff face more pressures and protecting time for research is increasingly difficult," he said. "If this pattern continues, it means slower progress towards brand new treatments for cancer."

George Freeman, the minister at the Department for Science, Innovation and Technology, said: "Commercial clinical trials are absolutely vital to both our UK life sciences sector and widening NHS patient access to innovative medicines all across the UK. The UK has traditionally been a strong global location for trials, as demonstrated most recently through the **groundbreaking** Covid recovery trial which was set up in record time and was the world's largest randomised controlled trial for Covid-19.

"However, our life sciences sector has reported a 44% fall in recruitment of patients to commercial clinical trials between 2017 and 2021 – so it is vital that we act to rebuild competitiveness."

Doc 9.3. The rise of Spain: A key player in global clinical trials

Labiotech, 6th May 2024 – Roohi Maryam Peter

[...] Out of the 2,500 clinical studies that were carried out last year [in Europe], 45% were held in [Spanish] national research centers. [...] Spain takes part in one out of every three tests that are launched in Europe, and comes second in the world – after the U.S. – in partaking in clinical trials. Back in 2021, the country accounted for a 4.1% share of clinical trials globally. To add to that, more than 145,000 patients in the country were said to have been involved in clinical studies last year.

Moreover, the nation was ranked fifth in the number of scientific publications in the field of cell therapies last year, according to a report by the Spanish biotech association Asebio. It is ahead of countries like South Korea, the U.K., and Italy, where rigorous biotech research takes place. Plus, more than 100 studies conducted in the region test advanced therapies.

“There is strong institutional commitment to research, development, and manufacturing activities around advanced therapies. In March 2024, a public-private partnership was announced in this field involving CDTI, Rovi, and Insud Pharma, with an initial commitment of more than €74 million (\$79.67 million). The goal is to foster innovation and to access these types of products to patients for which advanced therapies could be the best therapeutic approach,” said Martín-Ruiz.

Partnering for progress: Spain’s collaborative research initiatives

This initiative has been born out of two VCs [venture capital investments], and was approved by the Council of Ministers. It is a part of the Vanguard Health Strategic Project for Economic Recovery and Transformation (PERTE) that is promoted by Spain’s government. PERTE aims to enable the public and private sectors to partner on projects in order to boost economic growth and employment within the Spanish economy. [...]

But Spain’s caliber to lead clinical trials has not come out of the blue. It is very much rooted in a strong sense of collaboration, according to Martín-Ruiz. One such example of R&D partnerships is Biocat, an organization meant to drive life science in Catalonia, a region in Spain that is named the BioRegion. The BioRegion makes up more than 1,300 companies and 91 research institutions, and it represents 8.7% of the country’s gross domestic product (GDP) as well as 8% of employment in Catalonia. Investors in the region looking to spend on startups have doubled in the past three years. [...]

Most drug trials are held in Spain’s capital Madrid as well as the bustling city of Barcelona in Catalonia. In fact, American vaccine maker Moderna chose Madrid as the ideal place outside of the U.S. to test its mRNA vaccines. The multinational pharmaceutical shelled out €500 million (\$538.08 million) as a part of these collaborative efforts. This is following Spain’s notable involvement in trialling vaccines and drugs during the COVID-19 pandemic as it led Europe’s coronavirus studies. [...]

Precision medicine grows in Spain

Spain is also invested in precision medicine research. As of last year, cancer was the therapeutic area with the most number of personalized medicine projects, making up nearly 30% of all precision medicine studies and programs, according to Statista. An AseBio report revealed that precision medicine products made up more than half of all new medicines in 2020, compared to 12% previously. [...]

“The sector has attracted experienced human capital, specialized investors and there are already nice success stories of companies that have completed the cycle from inception to acquisition, initial public offering (IPO) and commercialization. However, there is room for improvement in aspects such as the translation of the excellent science that the country generates into company creation and product development,” said Martín-Ruiz.

Reaching every corner of Spain with decentralized clinical trials

[...] “According to Farindustria, 50% of the clinical trials conducted in Spain are carried out in the autonomous regions of Madrid and Catalonia. It is my understanding that there is a plan to increase the participation of the hospitals from other autonomous regions in the clinical trials conducted in Spain. The quality of the centers in those regions certainly justifies this strategy, and it will provide the opportunity to pharmaceutical companies to access more patients, and to patients in those regions to access novel therapies,” said Martín-Ruiz.

Network clinical trials are being organized, where multiple healthcare centers, such as hospitals, clinics, and research centers join hands to bring investigational therapies to patients all over the country. These trials take place across different sites in multiple locations simultaneously. As the [country] builds a stronghold for healthcare research, its success goes to show how collaboration is key to research and innovation.

Doc 9.4. South Korea and Australia on the rise as clinical research hubs

Pharmaceutical Technology, 12th June 2024 – Akosua Mireku

Novotech’s vice president highlighted the APAC region’s growing clinical presence, drawing attention to Australia and South Korea.

Dr. Yooni Kim, the vice president of clinical services at Novotech, says Australia and South Korea are emerging as bubbling clinical research hubs in the Asia-Pacific (APAC) region.

At the ongoing Outsourcing in Clinical Trials UK and Ireland conference, Kim led a session on “Unlocking APAC potential to enhance your clinical program.” The event, held 11 – 12 June, gathered clinical trial professionals to debate issues within the sector. At Kim’s talk, she highlighted the 142 European biotech companies that have conducted single-country or multinational clinical trials in the APAC region between 2019 and 2023, saying that the region has become the “fastest-growing global market for pharmaceutical sales”.

In particular, Kim highlighted South Korea’s “attractive” government frameworks for clinical research. For example, the Korea Health Industry Development Institute (KHIDI) has created a national artificial intelligence (AI) platform that integrates data from several healthcare institutes to support clinical trials, match patients with studies, and monitor trial progress. Moreover, Samsung Medical Center is also growing partnerships with AI startups for data analysis and patient outreach, she adds.

“Australia also has a very streamlined process,” says Kim, calling attention to the region’s six – eight-week trial start-up timeline for private sites. This includes the period needed for an application to go from an Ethics committee submission to approval. Furthermore, the country does not require a clinical trial application (CTA) or an investigational new drug (IND) application to conduct a study. Several biotech companies begin clinical trials in Australia as they simultaneously prepare US IND submissions, and choose to run their earlier phase studies in Australia before transitioning to the US for the later stages, said Kim. This makes

the country particularly attractive as the US agencies accept clinical data from Australia for **subsequent** regulatory submissions, she adds.

In 2024, the Australian government initiated its Clinical Trials Activity Initiative that aimed to provide \$750m over 10 years between 2024/2025 and 2033/2034. The government plans to aid clinical trials addressing rare cancers, rare diseases, **unmet** needs, and bring investigator-led international clinical studies to Australia [...] The country has been taking actions to improve its global appeal as a clinical research superpower for several years, introducing a research and development (R&D) refund scheme with up to 43.5% cash refunds that was launched in July 2021.

Activity 9.C. Vocabulary search

Find a translation or a synonym for the following words.

<u>Words from text</u>	<u>Synonym</u>	<u>Translation</u>
- Regius professor	-	- <i>nommé par le régent</i>
- an overhaul	- a revamp	-
- former	-	- <i>précédent</i>
- to ride for free	-	-
- to run to schedule	- on time	-
- a backlog	-	- <i>retard</i>
- groundbreaking	- cutting edge	-
- to foster	- to foment	-
- to shell out	-	- <i>débourser</i>
- to carry out	-	- <i>implémenter</i>
- a stronghold	-	- <i>place forte</i>
- bubbling	- vibrant	-
- ongoing	- live	-
- streamlined	-	- <i>simplifié</i>
- subsequent	- later	-
- unmet	- unaccounted for	-

Activity 9.D. Consultants

As renown strategists with a background in consulting governments and health system executives, you've naturally been invited to the International Conference on Clinical Trials, in November, London. You've accepted to intervene as keynote speakers to share your expertise, for which you have to write a speech.

1. Join forces with 2 to 3 students and pick a name for your pharmaceutical consulting firm.
2. Pick one of the following subjects:
 - Why the UK has lost its shine
 - Spain as a success story
 - Why South Korea has become and continues to be an attractive ecosystem
 - Australia, a competitive model further boosted by legislation
3. Pick relevant information from the above articles and from the internet and write a 5-minute presentation *à la* TED talk. Guidelines:
 - distribute speech equally,
 - use the presentation techniques you learnt earlier this year (hook, signposting...),
 - if you use a slideshow, keep it simple,
 - you MUST use at least 4 words from the "Synonym" column in 9.C.
4. Give your talk as a firm.
5. When it's your turn to listen, sit back and assess. Give a mark /10 to the firm who's presenting, according to the following grid:
 - delivery and presentation techniques → 4 points,
 - content → 4 points,
 - synonyms used → 2 points.

10. New horizons: biopharmaceuticals

A biopharmaceutical, also known as a biological medical product, or biologic, is any pharmaceutical drug product manufactured in, extracted from, or semi-synthesized from biological sources. Different from totally synthesized pharmaceuticals, they include vaccines, whole blood, blood components, allergens, somatic cells, gene therapies, tissues, recombinant therapeutic protein, and living medicines used in cell therapy.

The European Medicines Agency uses the term advanced therapy medicinal products (ATMPs) for medicines for human use that are "based on genes, cells, or tissue engineering", including gene therapy medicines, somatic-cell therapy medicines, tissue-engineered medicines, and combinations thereof.

"Biopharmaceutical", Wikipedia, May 2024

Activity 10.A. Pair work

1. Read the above definition and find an example of a biopharmaceutical that is:

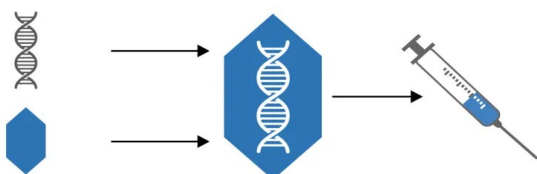
- a vaccine, a blood component, an allergenic (student A);
- a somatic-cell therapy medicine, a recombinant therapeutic protein (student B).

Then explain your findings to your partner.

2. With the help of your partner, match the writing below to the following diagram.

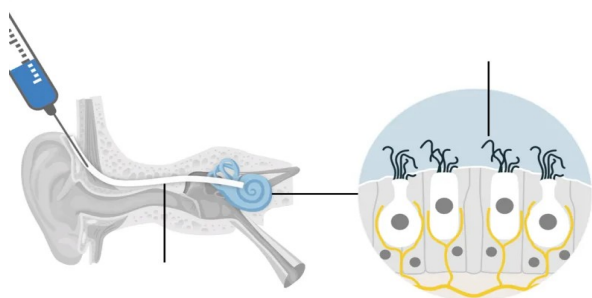
How gene therapy works

1.

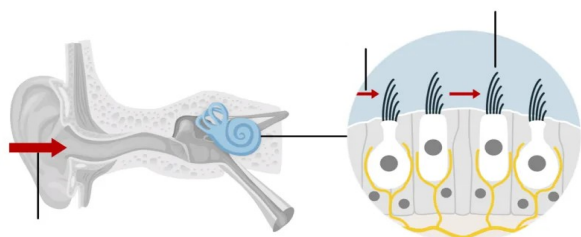


- a. DNA
- b. Sound
- c. Infusion tube
- d. Damaged hair cells in cochlea
- e. Damaged hair cells repaired by the therapy – allowing child to hear
- f. Sound waves
- g. Virus
- h. Syringe containing modified virus
- i. DNA added to harmless virus to make the gene therapy
- j. Cochlea
- k. Repaired hair cells
- l. Gene therapy infused into the inner ear

2.



3.



Doc 10.1. FDA approves first gene-editing treatment for human illness

NPR News, 8th December 2023 – Rob Stein (→ [LINK HERE](#))

Doc 10.2. Toddler born deaf can hear after gene therapy trial breakthrough her parents call "mind-blowing"

CBS News, 10th May 2024 – Kamal Afzali (amended by teacher)

[...] Opal Sandy, now 18 months old, was born with total deafness due to a fault in the OTOF gene, which makes a protein called Otoferlin, [responsible for] communication between cells of the inner ear, or cochlea, and the brain. As part of a trial run by Cambridge University, Opal received an infusion of a working copy of the OTOF gene in her right ear. The surgical procedure took only 16 minutes and was carried out just before she reached her first birthday.

Within a few weeks, Opal could hear loud sounds. [...] Opal's mother Jo Sandy described seeing her daughter respond to sound for the first time as "absolutely mind-blowing." She immediately sent a message to her partner, James Sandy, who was at work. "I'm not sure I believed it at the start. [...] I think I said it was just a fluke, you know? She must have reacted to something else."

He came home immediately and removed his daughter's cochlear implant, a device that bypasses damaged hearing cells by directly stimulating auditory nerves in the inner ear, and started testing her response to loud banging on the bottom of the stairs. She responded.

Twenty-four weeks after her surgery, Opal was able to hear whispers – leading doctors to describe the level of hearing in her right ear as "near normal." [...] The little girl has even started speaking, the family told BBC, saying words like "Mama" and "Dada."

Professor Manohar Bance – an ear surgeon at Cambridge University Hospitals Foundation Trust and chief investigator of the trial – told CBS News on Friday the results were "perfect" and "better" than he expected. "I see this is just the beginning of gene therapies. It marks a new era in the treatment for deafness," said Professor Bance.

Opal has tolerated the procedure and the gene therapy itself well, and she's experienced no adverse effects following the treatments, according to Regeneron, the American company behind the therapy that's being tested in the Chord trial. The study involves children across sites in the U.S., Britain and Spain. In the first of the trial's three parts, a low dose of gene therapy is administered to three deaf children in one ear only. That group includes Opal. A higher dose is also given to another set of three children, also in one ear. If it proves safe, more children will receive infusions, in both ears, in a next phase. [...]

While devices such as hearing aids and cochlear implants assist people with different types of hearing loss by boosting sound, they do not restore the full spectrum of sound. Opal's

experience and other data from the Chord trial were presented at the American Society of Gene and Cell Therapy annual conference, taking place this week in Baltimore.

Doc 10.3. A new type of medicine, custom-made with tiny proteins

TED, April 2019 – Christopher Bahl (→ [LINK HERE](#))

Activity 10.B. Summarise and present

1. In groups of three students, read/ listen, summarise and present a document to your partners. (student A → doc 10.1 / student B → doc 10.2 / student C → doc 10.3).

2. As a group, create a short slideshow (1 to 3 slides) that sums up the findings presented in the three documents. Include the following items:

- beginning & end dates of trials, dates when findings were published,
- patients (names, symptoms, conditions, age...),
- names and locations of medical institutions, research centres, companies, doctors,
- technologies used,
- advantages and shortcomings of treatments.

3. Present your findings to the class.

11. New horizons: AI, 3D printing, creatures big and small...

Activity 11.A. AI, 3D printing, big creatures

1. In threes, watch the following videos, take notes, and give a 3-minute summary of your findings to your partners.

- Student A: [How AI Could Change the Future of Medicine](#), Time, 4th November 2022
- Student B: [3D-Printing Heart Tissue With Human Stem Cells](#), CNET, 30th April 2023
- Student C: [How hospitals use dogs to sniff out disease](#), CBC, 8th February 2024

2. Together, write a list of 5-10 scientific procedures, concepts or ideas you have learnt.

3. Take stock of this information, and provide a team answer to the following questions:

- Which technology is the most promising for the future of healthcare?
- Which technology is the most deployable and affordable?

4. Explain your choices to the class.

5. As a class, vote on the best two answers.

Activity 11.B. Small creatures

1. Watch the video [The Virus That Kills Drug-Resistant Superbugs](#), Motherboard, 7th December 2017, and find synonyms to the following expressions:

- (0:07) scramble →
- (1:43) bugs →
- (2:09) overuse →
- (2:58) original →
- (3:20) in vogue →
- (9:35) pushback →
- (9:37) physicians →
- (10:05) boutique treatment →
- (10:14) ultimate kill →
- (12:02) the system →
- (13:52) silver bullet →

2. Watch the video [Phage Therapy Targeting Antibiotic-resistant Bacteria](#), Paul Turner, TEDx, 15th April 2022, and find synonyms to the following expressions:

- (0:21) it goes something like this →
- (1:46) in earnest →
- (3:59) sobering →
- (4:14) raging →
- (6:33) purposefully →
- (8:58) liabilities →
- (9:15) to hurl →
- (11:59) have their cake and eat it →
- (12:29) double-edged sword →
- (14:19) overarching →
- (15:26) gold standard →

3. In threes, make a list of 5 to 10 facts that you've discovered thanks to these videos.

4. Share a fact from your list, then listen to the other groups share a fact. Repeat.

5. In the second video, Professor Turner says "the enemy of my enemy is my friend" (5:41). Discuss with your partners and try to find 1 to 3 types of medication or devices which abide by this principle, and work the same way phages do.

Activity 11.C. Poster

1. Stay in your group of three students and pick one of the following technologies, from the videos you've watched:

- AI-driven analysis of patient data
- 3D-printing human tissues from stem cells
- disease prevention thanks to trained sniffer dogs
- licen (Professor Fischetti)
- phages that provoke an evolutionary tradeoff (Professor Turner)

2. Create a poster slide that explains clearly and briefly how the technology works, using images, diagrams, shapes (arrows, circles...) and key words. No sentences!

3. To present the technology you've chosen, give a short talk to the class, articulated around your poster.

12. Counterfeit drugs

A counterfeit medication or a counterfeit drug is a medication or pharmaceutical item which is produced and sold with the intent to deceptively represent its origin, authenticity, or effectiveness.

A counterfeit drug may contain inappropriate quantities of active ingredients, or none, may be improperly processed within the body (e.g., absorption by the body), may contain ingredients that are not on the label (which may or may not be harmful), or may be supplied with inaccurate or fake packaging and labeling.

“Counterfeit medications”, Wikipedia, May 2024

Activity 12.A. Discuss in pairs

1. Which of the following would you use or buy?

- Counterfeit medicines
- Counterfeit cosmetics
- Off-brand cola
- Fake designer clothes
- Pirated music/ TV shows/ software
- Counterfeit art

2. Imagine if you were poor, living in a country with no health coverage and suffering from a chronic illness. Would you buy medication from unauthorized dealers?

3. What's the most dangerous: daily use of cheap dietary supplements, fast food and alcohol or occasional use of illegal (possibly counterfeit) drugs?

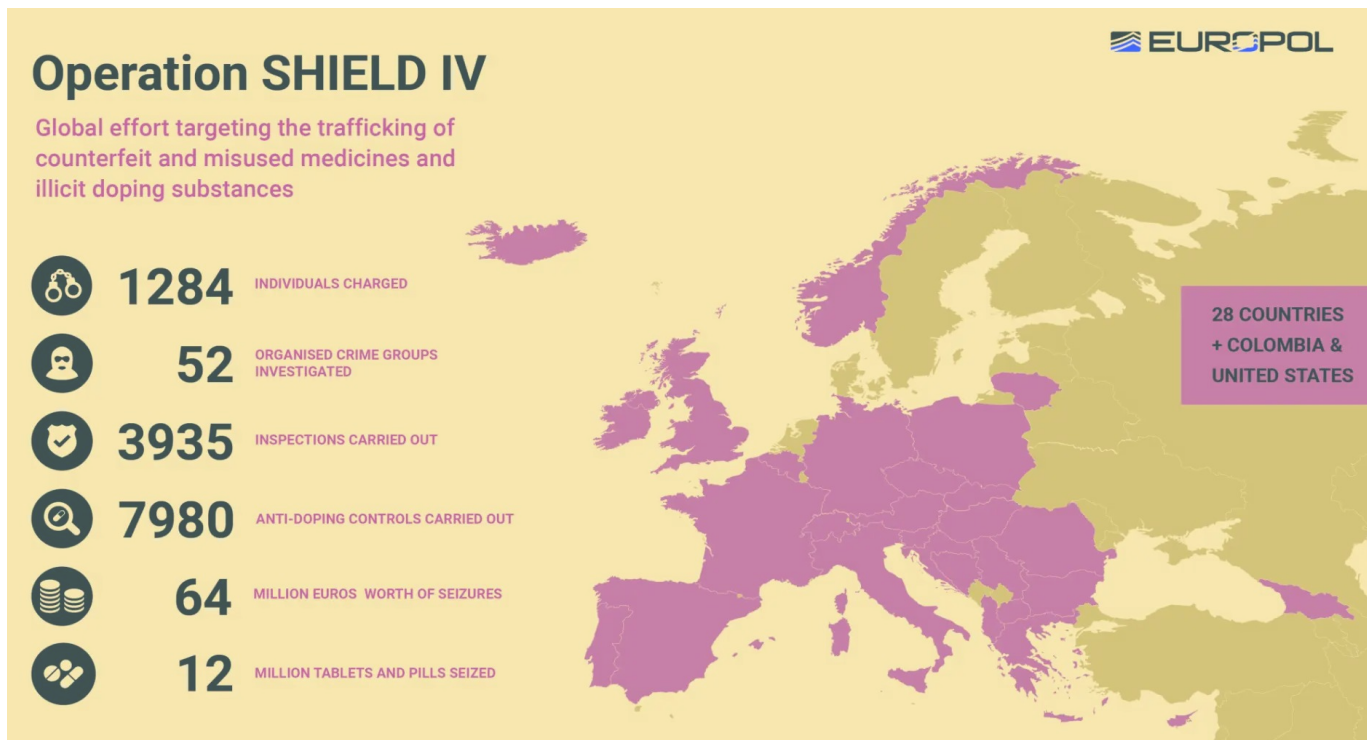
4. How can you check whether a drug is real or fake?

Doc 12.1. Fake medicines worth EUR 64 million off EU markets

Europol press release, 13th February 2024 (abridged by teacher)

Between April and October 2023, Europol coordinated the fourth edition of Operation SHIELD. Law enforcement, judicial, customs, medical and anti-doping authorities from 30 countries across 3 continents joined forces in this global effort targeting the trafficking of counterfeit and misused medicines and illicit doping substances. The operation was also supported by the European Anti-Fraud Office (OLAF), the European Union Intellectual Property Office (EUIPO), Frontex, the World Anti-Doping Agency (WADA) and national medicine agencies.

[...] Illegal vendors continue to advertise doping substances on social media, mostly targeting non-professional athletes and members of restricted or private sport groups. Along with performance-enhancing products, medicines for erectile dysfunction are offered via dubious channels online and remain among the most seized counterfeits by law enforcement. Unregulated use of medicines and doping substances, especially of counterfeit products, can cause serious and irreversible bodily harm.



Trafficking of unauthorised pharmaceuticals and medical devices targeted in Greece

Greek authorities dismantled a criminal network which had been trafficking **unauthorised** pharmaceuticals and medical devices since 2019. The products included counterfeit botox and vitamin acid preparations used in cosmetic surgery. The criminals' customer base of these counterfeits covered various regions of the country. The seized products were imported via couriers or transported by a member of the group from Turkey and Poland.

San Marino underground lab uncovered by Italian authorities

The Italian authorities searched the logistical base of a criminal group operating from San Marino. Investigators identified a rural **underground** lab set up for the production, labelling and packaging of doping products. Police seized vast quantities of doping substances in the form of **vials**, tablets, capsules, bottles and packaging, all intended for sale in Italy as well as around EUR 180 000 in cash. The suspect **allegedly** imported pure Nandronole, an anabolic steroid classified as a narcotic drug in Italy. His trafficking routes **spanned** all over Europe and as far as China.

Doc 12.2. Killed by a pill bought on social media: the counterfeit drugs poisoning US teens

The Guardian, 21st December 2021 - Helen McCormick (abridged by teacher)

[...] National statistics show a huge surge in drug-related deaths during the pandemic, with fatalities leaping to more than 93,000 in 2020, a 32% rise from 2019. [...] Fentanyl, a cheap, synthetic opioid up to 100 times more **potent** than heroin, is not only getting mixed with traditional street drugs such as heroin, cocaine, methamphetamine and marijuana, federal authorities say – it is being pressed into millions of pills that look exactly like traditional pharmaceuticals. But the potency of counterfeit pills can vary dramatically.

[...] Byrne, a special agent for the investigations unit of the US Department of Homeland Security, works in cooperation with the DEA and local law enforcement agencies on a San Diego task force that focuses **solely** on fentanyl deaths. In the team's first year, 2018, there were 92 fentanyl deaths in San Diego county; this year, Byrne said, the county was **on track to** respond to more than 810. Sometimes he is called out to respond to multiple deaths a day. "This stuff doesn't discriminate," Byrne said. "We go and deal with a dead person who's homeless. Then we get another call and we're in a house that's worth \$12m and that person's dead from the same drug."

On the morning of 23 June 2020, it all became personal. Byrne's partner called him to say her 14-year-old nephew, Alexander Neville, had been found unconscious in his bedroom 40 minutes away in Orange county. Byrne and his partner jumped in their cars, but it was too late [...] "Alex had taken one pill that he thought was Oxycontin – one pill. I had no idea that one pill would kill him," said his mother. "He had ordered an illegally manufactured pill right **off of** social media as easily as ordering a pizza."

[...] Perla Mendoza believes it was a dealer on Snapchat who sold a fake Xanax that killed her son, 20-year-old Daniel Elijah Figueroa, on 16 September last year. [...] Mendoza shared with the Guardian screenshots of the Snapchat account where she believes her son got the fatal pills. In them, an advertiser offers free delivery of "Oxy" in Orange county. "Hit my line, doing hella deals the rest of this week," one post reads.

[...] Jaime Puerta, who found his 16-year-old son Daniel Puerta-Johnson unconscious in his southern California home in April 2020, has helped parents organize protests outside the offices of Snapchat and on the streets of San Francisco, **pushing for** more action from social media sites, law enforcement and state regulators.

[...] Social media companies are now being forced to confront the deadly role their platforms can play. At a congressional hearing this month, lawmakers **grilled** the head of Instagram, Adam Mosseri, about young people's easy access to drugs.

[...] Jeanne Moran, a spokesperson for Meta, which owns Instagram, said the company takes down a huge number of drug-related posts and has "developed technology to find and remove this content proactively". Moran cited company metrics showing "out of every 10,000 views of content on Instagram, we estimate no more than 5 of those views contained content that violated the policy (on legally-regulated goods)".

Jennifer Park Stout, vice-president of global public policy at Snap, said in an October Senate hearing that Snapchat had dramatically increased its efforts and was "absolutely determined to remove all drug dealers" from its site. She said the company had "deployed proactive detection measures" to remove drug dealers, but "they are constantly **evading** our tactics".

[...] Eric Feinberg, vice-president for content moderation at the non-profit **watchdog** group Coalition for a Safer Web, said dealers were **churning out** new accounts faster than technology companies could take them down [...] Feinberg says that, once he signed up to follow a few drug sellers' sites, social media algorithms began recommending more drug

dealers for him to follow, in a phenomenon called algorithmic amplification. For example, after he followed some drug-related accounts on Instagram, Feinberg said, a dealer began following him out of the blue and barraging him with offers. [...]

In October's Senate hearing, Senator Amy Klobuchar commented that if social media companies were held legally **liable** for deaths due to drugs sold on their platforms, they might find faster ways to respond to the crisis. But the companies have long held that, as technology platforms, they are not legally accountable for content posted on their sites.

"If a kid had just walked into, say, a pharmacy, they wouldn't be able to get this," said Klobuchar to Snap's vice-president. "But, in this case, they can get on your platform and just find a way to buy it. That is the problem." [...]

Doc 12.3. EU's counterfeit medicine plague calls for cross-sector innovation to restore public trust

Business Matters, 1st March 2024 (abridged by teacher)

According to Europol, counterfeit medicine trafficking has become highly lucrative, **incentivising** organised criminal groups to enter the trade. This trend accelerated considerably during the COVID-19 pandemic, which "provided...illicit trade networks with new opportunities," as highlighted by a 2022 EUIPO-OECD report. Counterfeiters have generated massive profits from fake and low-quality paracetamol, painkillers and personal protective equipment (PPEs), reflecting how low detection risk and weak enforcement have fuelled an illicit market now valued at up to \$200 billion globally.

[...] Incredibly, the World Health Organization (WHO) estimates half of drugs sold online to be fraudulent, while roughly 95% of online pharmacies violate patient health standards.

Counterfeit drug-associated incidents have **soared** globally in recent years, with the WHO estimating that falsified medicines kill roughly one million people every year. [...] Last year, the European Medicines Agency (EMA) highlighted that counterfeits of diabetes medicine Ozempic and weight loss drug Wegovy had been identified across the EU **amid** supply shortages and soaring demand. This scourge has led to patients being hospitalised with severe side effects in Austria and the UK, with France, Germany, Italy and Ireland equally **grappling with** the expanding online illicit market.

Unsurprisingly, counterfeit medicines featured high on the agenda of Pharmapack Europe 2024 in late January, where industry leaders gathered to explore advanced technologies' vital role in tackling this digitally-facilitated illicit trade.

[...] French startup Cypheme has emerged as [a prominent] actor in this space, with its AI-powered counterfeit detector solution recently launched in OpenAI's GPT Store. Facilitated by **cutting-edge** neural network software, Cypheme's solution allows consumers to scan and identify counterfeit products using only their smartphone camera.

Dubbed 'Deep Tracing,' Cypheme's AI technology analyses photos of product packaging to distinguish between genuine and falsified medicines, with its training on authentic images enabling the detection of counterfeiters' inevitable anomalies. Building on its previous, EU-funded project to develop Noise Print technology, which employs AI analysis of security certificates' microstructure to identify falsified medicines and medical equipment, Cypheme seems **primed** to stay at the forefront of this crucial effort.

[...] Launched in 2013, the EU's Falsified Medicines Directive (FMD) introduced tougher measures to tackle drug counterfeiting, notably [...] recommending unique identifiers as well as anti-tampering devices for packaging. The FMD's final implantation stage was completed in 2019, with industry stakeholders initiating the European Medicines Verification System (EMVS) under the directive's framework, [...] while the European Commission has highlighted the adoption of the unique identifier and EU logo to certify legal online pharmacies [...]

Combining digitally-orientated regulatory innovations with the private sector's cutting-edge technological solutions will offer European and national authorities the best chance to meaningfully curb the illicit medicines trade. The success of Operation SHIELD IV has provided a much-needed **spotlight** on this public health menace and **showcased** an ambitious collaborative model that should be replicated to restore public trust in Europe's health systems.

Doc 12.4. Could cyber-physical watermarks be the key to pill-level traceability?

European Pharmaceutical Review, 3 March 2022 - Hannah Balfour (abridged by teacher)

[...] The US Food and Drug Administration (FDA) has **mandated** that by 2023 medications have unit-level traceability through the Drug Supply Chain Security Act. But how can this be achieved? In a recent paper, researchers from Purdue University, US, revealed a technology that could meet this requirement.

Counterfeit medications and pharmaceutical products are just a click away from being purchased from online pharmacies via smartphone. However, the newly developed anti-counterfeiting technology could turn smartphones into lifesavers by allowing patients to simply take a picture of a cyber-physical **watermark** to confirm if a medication is real or not.

Young Kim, associate head for research and an associate professor at Purdue's Weldon School of Biomedical Engineering, [...] proposes using small cyber-physical watermarks to trace medications and confirm whether they are real or fake, as well as allowing patients to confirm dose and frequency, and access additional information on the medicine. [...]

"A paper watermark is commonly used on currency and a passport to discourage counterfeiting, and we are affixing a watermark on an individual medicine that is readable by a smartphone camera to extract a hidden digital key," Kim said. "Purdue has an excellent track record of watermarking and inkjet printing research. We are proud that we have

extended such national security research into pharmaceuticals as counterfeit medicines are a national security problem.”

The cyber-physical watermark is printed on specialised **edible** fluorescent silk with FDA-approved food dye using an inkjet printer. According to the researchers, using fluorescent silk is not only beneficial because it makes it difficult for counterfeiters to duplicate the watermark, but also because engineers can change the biopolymer’s shape, structure and flexibility. The engineers also addressed how to use the technology with different smartphone models, photo quality and light. [...]

Placed on pills using a simple sugar glue, the smallest size of watermark the team could produce is 5mm by 5mm. **While** the team has had success with solid pills, it is also developing technology for liquids. Kim said that the cyber-physical watermark technology could be used first on **name-brand** medications and restricted narcotics before being **rolled out** on over-the-counter medications and generics.

Activity 12.B. Vocabulary search

Identify the highlighted words from the four documents above and match them to the synonyms or to the translations below.

- Document 1: 10 words

illegal	→	ranged	→
<i>prétendument</i>	→	forged	→
secret	→	<i>douteux</i>	→
abused	→	<i>saisi</i>	→
<i>interdit</i>	→	bottle	→

- Document 2: 10 words

responsible	→	questioned	→
escaping	→	producing	→
projected to	→	advocating	→
<i>puissant</i>	→	<i>garde-fou</i>	→
from	→	only	→

- Document 3: 8 words

risen	→	<i>parmi</i>	→
encouraging	→	<i>de dernier cri</i>	→
fighting	→	highlighted	→
bound	→	emphasis	→

- Document 4: 6 words

implemented	→	ruled	→
<i>filigrane</i>	→	<i>comestible</i>	→
trademark	→	<i>alors que</i>	→

Activity 12.C. Debate *

1. Pick a character in one of the two rounds below (6 to 13 students/ round).
2. You've got 20 min to prepare, for a 15 min debate. Use the articles above and advice on the following page to build your positions.
3. Debate!

ROUND 1: Should drug-related content be banned on social media?

<i>Journalist - Helen McCormick, The Guardian</i>	
<i>Institutions</i>	<i>Social media</i>
<ul style="list-style-type: none"> - <u>Ed Byrne</u>, special agent, US Department of Homeland Security, San Diego - <u>Amy Klobuchar</u>, Senator for Minnesota 	<ul style="list-style-type: none"> - <u>Jeanne Moran</u>, spokesperson for Meta - <u>Eric Feinberg</u>, v-p for content moderation, Coalition for a Safer Web
<i>Families of victims</i>	<i>New technologies</i>
<ul style="list-style-type: none"> - <u>Amy Neville</u>, mother of Alexander Neville - <u>Jaime Puerta</u>, father of Daniel Puerta-Johnson 	<ul style="list-style-type: none"> - <u>Charles Garcia</u>, Co-founder, Cypheme - <u>Young Kim</u>, Associate professor, Weldon School of Biomedical Engineering
<i>(Ex) drug users</i>	<i>(Ex) drug dealers</i>
<ul style="list-style-type: none"> - <u>Angelina Jolie</u>, actress - <u>Lance Armstrong</u>, professional cyclist 	<ul style="list-style-type: none"> - <u>Suspect</u> from San Marino, Shield IV (doc. 1) - <u>"Oxy" dealer</u> on Snapchat (doc. 2)

ROUND 2: Cartels, dealers, legislators, tech giants or users: who are the real culprits?

<i>Journalist - Helen McCormick, The Guardian</i>	
<i>Institutions</i>	<i>Social media</i>
<ul style="list-style-type: none"> - <u>Catherine De Bolle</u>, Executive Director, Europol - <u>Amy Klobuchar</u>, Senator for Minnesota 	<ul style="list-style-type: none"> - <u>Adam Mosseri</u>, head of Instagram - <u>Jennifer Park Stout</u>, vice-president of global public policy at Snap
<i>Families of victims</i>	<i>New technologies</i>
<ul style="list-style-type: none"> - <u>Amy Neville</u>, mother of Alexander Neville - <u>Perla Mendoza</u>, mother of Daniel Elijah Figueroa 	<ul style="list-style-type: none"> - <u>Diana Wang</u>, Co-founder, Cypheme - <u>Young Kim</u>, Associate professor, Weldon School of Biomedical Engineering
<i>(Ex) drug users</i>	<i>(Ex) drug dealers</i>
<ul style="list-style-type: none"> - <u>Elton John</u>, author, singer - <u>Oprah Winfrey</u>, TV celebrity 	<ul style="list-style-type: none"> - <u>Suspect</u> from San Marino, Shield IV (doc. 1) - <u>"Oxy" dealer</u> on Snapchat (doc. 2)

*** Tips toolbox: How to prepare for a debate ***

If you want to succeed in a debate, you need to build your persona and points of view. Here is some help to achieve this: look at the following items, how they articulate, and fill them in.

You are:

Job/ vocation/ role:

Character traits (1 to 3):

Your audience:

Your message - ideas, arguments, facts + key phrases:

*** Tips toolbox: Useful debating expressions ***

- Expressing your opinion

I think that... I feel that... I believe that... Personally speaking... To me...

- Expressing nuance

Let's assume that... As a matter of fact...In theory... On the one/other hand...

- Expressing agreement

Sure! I couldn't agree more. It's a no brainer. Of course. Absolutely. Definitely.

- Expressing disagreement

No way! Is this a joke? That's not true. Utter nonsense! You're wrong!

- Expressing doubts

Are you sure? Have you double-checked? The facts say otherwise. I doubt it.

13. Ethical issues today

Activity 13.A. Discuss in pairs

Believe it or not, in a couple of months you'll have completed your M1! Now is the time to reflect on what you've learnt and to think about what's next.

1. With your partner, discuss the following.

- Are your professional aspirations the same today as they were in September?
- What values would you like to uphold in the pharmaceutical industry? How?
- What issues, if any, would you like to tackle? How?
- What needs fixing or improving?

2. Share your reflections with the class.

Doc 13.1. The Carbon Cost of Healthcare

The Lancet, 31st July 2023 (→ [LINK HERE](#))

In pairs, watch the above video. Answer the questions that have been assigned to you, then present your findings. Student A: questions 1 & 3. Student B: questions 2 & 4.

1. Explain the concept of “net zero healthcare” (2:58).
2. Explain what is meant by “that’s the social injustice of the situation” (4:23).
3. The Royal Wolverhampton NHS Trust has taken three specific measures to reduce carbon emissions and waste. Identify these measures and explain them, using statistics.
4. The trust has also invested in clean energy production. Draw a diagram with bubbles and arrows to explain why “on-site generation” (8:56) is a virtuous model, for the NHS, patients and society as a whole (watch video up to 10:33).

Activity 13.B. Finding new ways forward

In the video you have just watched, on the occasion of its bicentenary, The Lancet makes the two following calls for action.

GOVERNMENTS MUST RAPIDLY PHASE OUT THE EXPLORATION, EXTRACTION, PRODUCTION, AND USE OF FOSSIL FUELS IN A FAIR AND EQUITABLE MANNER—AND END THE EXPANSION OF FOSSIL FUEL SUPPLIES.

HEALTH ORGANISATIONS AND FACILITIES SHOULD INVEST NOW TO DECARBONISE AND ADAPT TO ACCOMMODATE CURRENT AND FUTURE IMPACTS OF CLIMATE ON HEALTH AND SOCIETY.

You are experts in the field of environmentally-friendly processes and practices related to drug production, drug distribution, hospital management and healthcare systems.

The World Health Organization has commissioned you to find at least two ways to achieve the above.

1. As a class, organise in 4 teams:

- teams 1 & 2 work on the “governments” call for action,
- teams 3 & 4 work on the “health organisations” call for action.

2. Brainstorm, reflect, regroup and organise your ideas on a slide show (2 to 4 slides).

Nota Bene: you ARE NOT allowed to copy-paste the ideas presented in the video from The Lancet. Instead you must come up with other ideas.

3. Present your findings to the class... Be convincing! The two teams working on the call for action that is not the subject of your presentation will assess your performance with a mark from 0 to 10.

4. As teams, take turns to present, listen and assess.

Doc 13.2. How racism makes us sick

TEDMED, November 2016 – David R. Williams (→ [LINK HERE](#))

1. In groups of threes, watch the above video and summarise it.

- Student A → 0:00 to 6:23
- Student B → 6:24 to 11:06
- Student C → 11:07 to 17:18

2. From 5:25 to 9:44, David R. Williams gives us a range of health-related facts that reveal how harmful racism is to Blacks in the USA. Decide which fact is the most striking to you and discuss your choice with your two partners.

3. From 14:01 to 15:44, the author lists several initiatives implemented across the USA to reduce racial inequalities and to deal with health matters in a more holistic, societal way. Decide which initiative you like best and discuss your choice with your two partners.

4. As a class, gather your findings and discuss how they might echo your own experiences.

~

You’ve come a long way and you ought to be proud of yourselves! Let’s finish off this lesson and the school year with a line from Plato (quoted by David R. Williams in the video above), hoping it may give you a little food for thought when approaching colleagues, patients, friends and fellow human beings in your future endeavours.

There is nothing as unfair as the equal treatment of unequal people.