

科學、科技與環境 教與學研討會

如何設計和組織教學內容

What is issue-enquiry approach?

- The learner searches for relevant solutions to a problem (issue) and can argue for and against the possible solutions.
- Development of skills to identify, investigate, understand, evaluate issues and offer solutions for them.

The process

- What is the issue?
- Why does this issue arise?
- What information is available? How might students obtain the basic information?
- When analysing the information, how to distinguish between facts and opinions?
- For a certain view, how strong is the evidence?

- What further information do you require to make a personal judgement? What methods of enquiry would you use?
- Are there different approaches to this issue?
- What attitudes and values appear to underlie these different approaches?
- Can a solution/consensus be reached?
- How to make informed judgement / decision ?

Merits of the issue-based approach:

- Relevant, meaningful, motivating
- Explore an issue from different perspectives
- Develop critical thinking & decision-making skills

Problems of the issue-based approach:

- How to acquire the background knowledge?
- How to organise the acquired knowledge?
- What methods of enquiry should be used?

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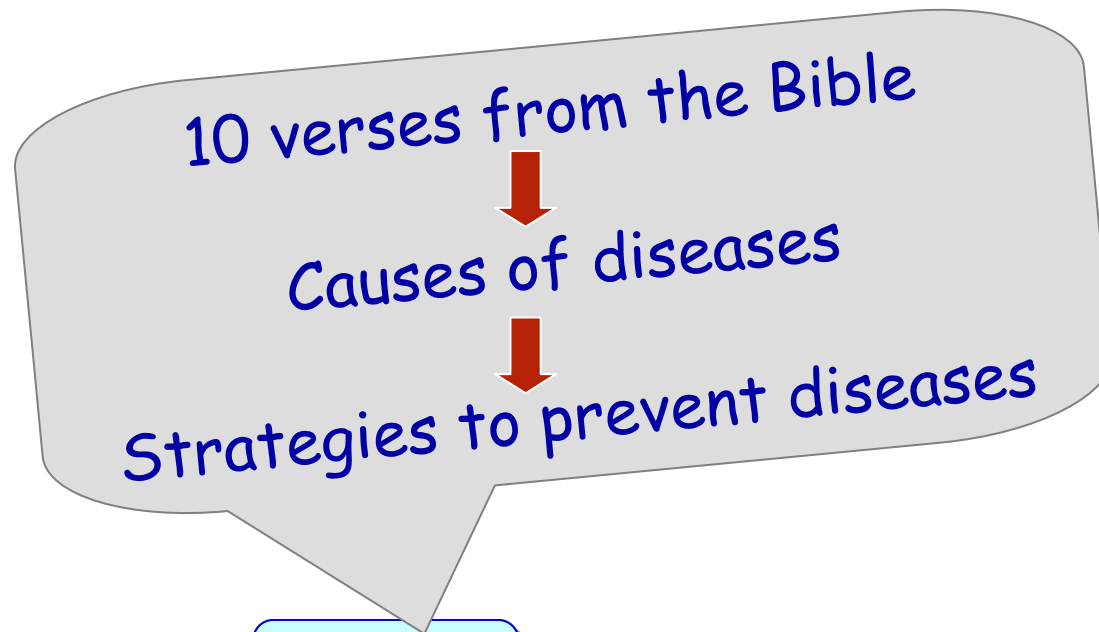
透過本學習範圍的學習經歷，學生應能：

- (a) 了解科學與科技對公共衛生和環境的影響，以及當中的含意；
- (b) 應用科學、科技與環境的知識，處理影響現代社會的議題；
- (c) 培養科學化、批判性、富創造性和獨立的思考能力，以建構知識及解決問題；
- (d) 培養對有關科學、科技與環境範疇的意念和觀點的理解能力和溝通能力；
- (e) 覺察有關科學、科技與環境的社會、文化和道德議題，並能在這些議題上作出判斷和有識見的決定；
- (f) 尊重大自然及一切生物，並成為致力保護社會及環境的負責任公民。

探討問題	相關價值觀和態度
<p>人們對疾病和公共衛生的理解如何受不同因素影響？</p> <ul style="list-style-type: none"> ● <u>以往人類如何理解疾病的成因？</u>有關理解是否符合<u>科學精神</u>？ ● 人們對健康的理解怎樣受經濟、社會等因素影響？ ● <u>科學與科技的發展怎樣影響人類對公共衛生的理解？</u> ● 處於不同文化下，健康資訊、社會期望及個人信念和價值觀，如何影響人們對公共衛生的理解？ 	<p>重視他人建議；尊重證據；尊重不同的生活方式、信仰及見解；文化承傳</p>
<p>科學與科技在何等程度上可以促進公共衛生的發展？</p> <ul style="list-style-type: none"> ● 科學與科技能否為<u>預防和控制疾病</u>提供新的解決方法？ ● 在公共衛生的範疇，科學與科技的發展如何受不同因素影響及引發哪些議題？科學和科技研究的成果如何受到尊重和保護？ ● 社會各界、政府及國際組織在維持及推動公共衛生方面會面對甚麼挑戰？ 	<p>人類整體福祉；人權與責任；合作；道德考慮</p>

- 科學與科技在醫學研究和發展（如新疫苗和抗生素的研發）的貢獻，如
 - 建基於科學方法的成效測試
 - 客觀、有效和可信的量度方法
 - 準確及高效的測量儀器
- 科學與科技發展引發的議題，如
 - 藥物的專利權
 - 生物科技發展的規管和道德考慮
 - 醫療技術和知識的轉移
- 個人的權利與責任，如在公眾地方要有良好習慣和健康的生活方式，以及不同持份者對公共衛生服務的訴求和影響

How to organise these issues
and
related knowledge ?



Religious explanation
Cultural beliefs
Society

How did people
perceive the
cause of diseases
in the past?

Scientific
understanding and
prevention of
infectious diseases?

Ways of infection
and prevention of
infectious
diseases

Natural d
against d

Artifi
defences
disea

small pox
black death
tuberculosis
influenza

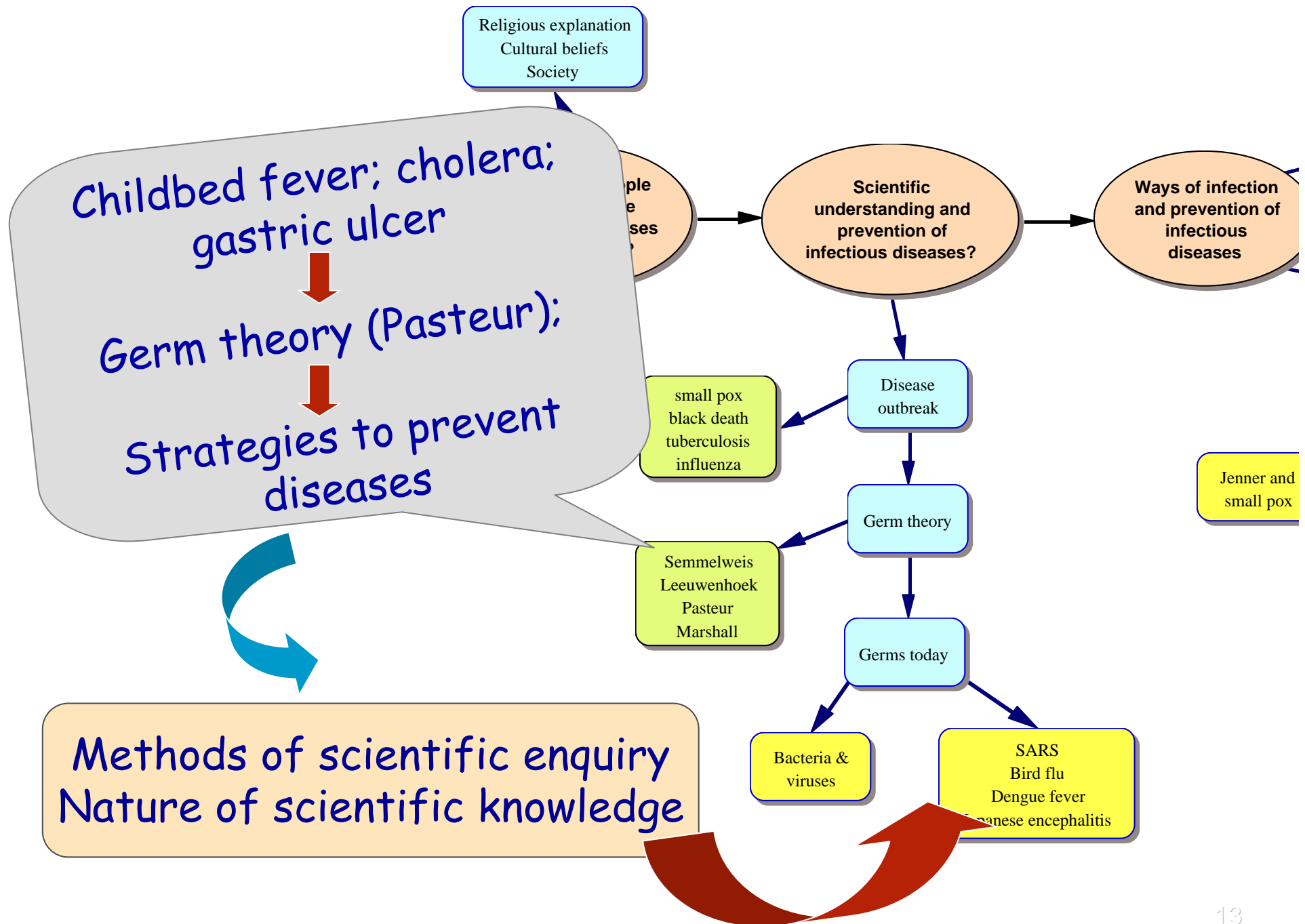
Disease
outbreak

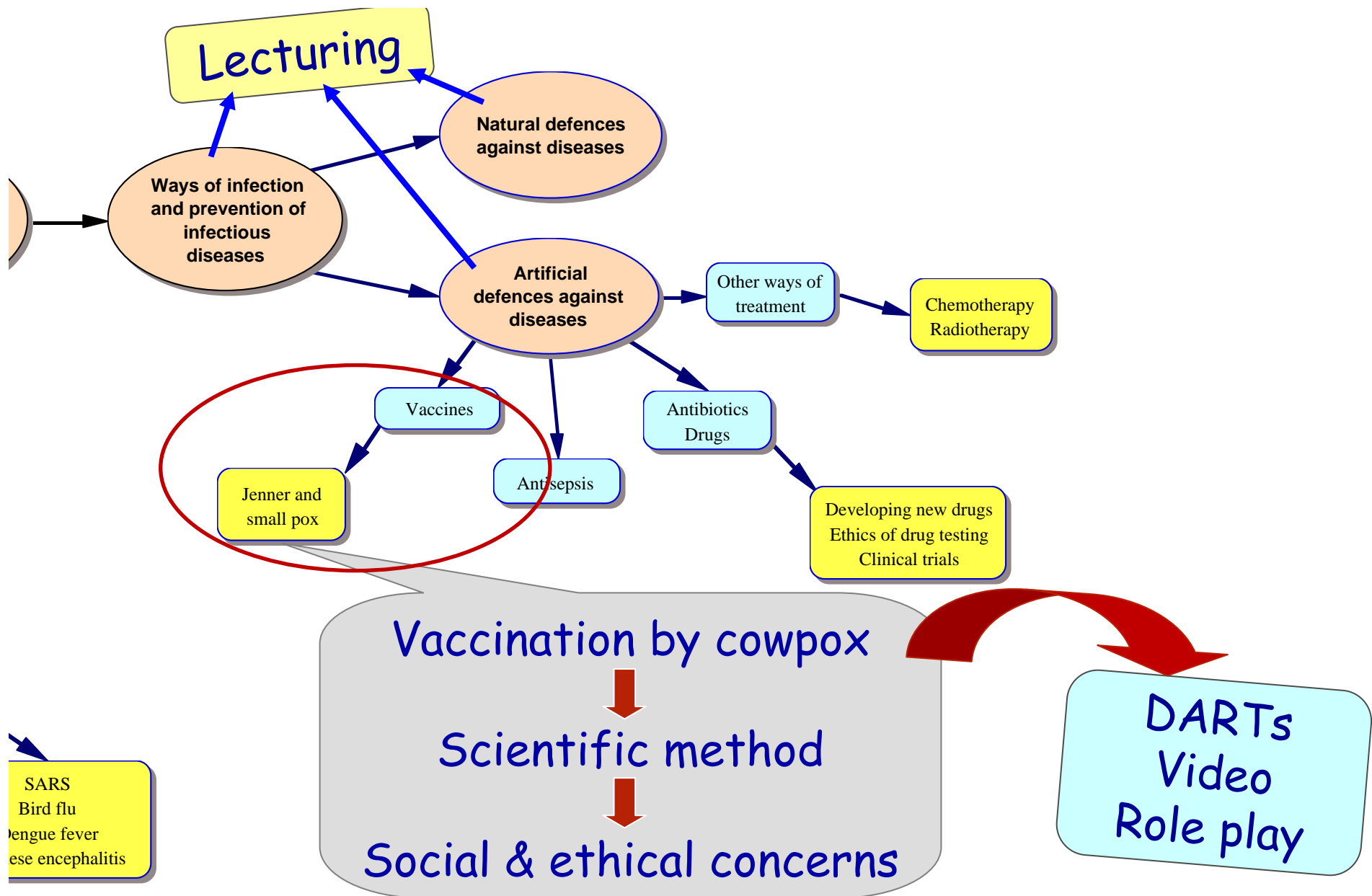
Germ theory

Vaccines

Jenner and
small pox

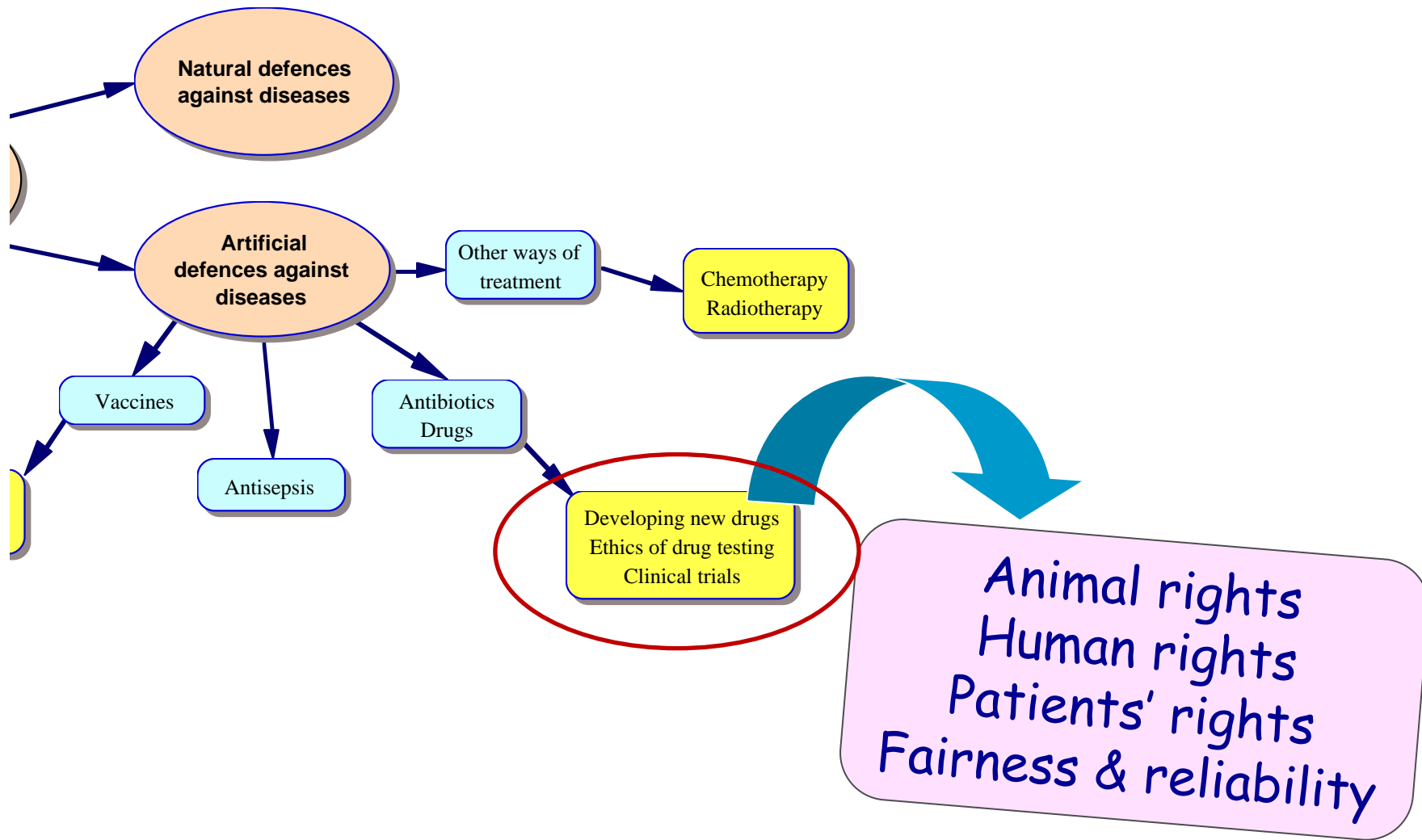
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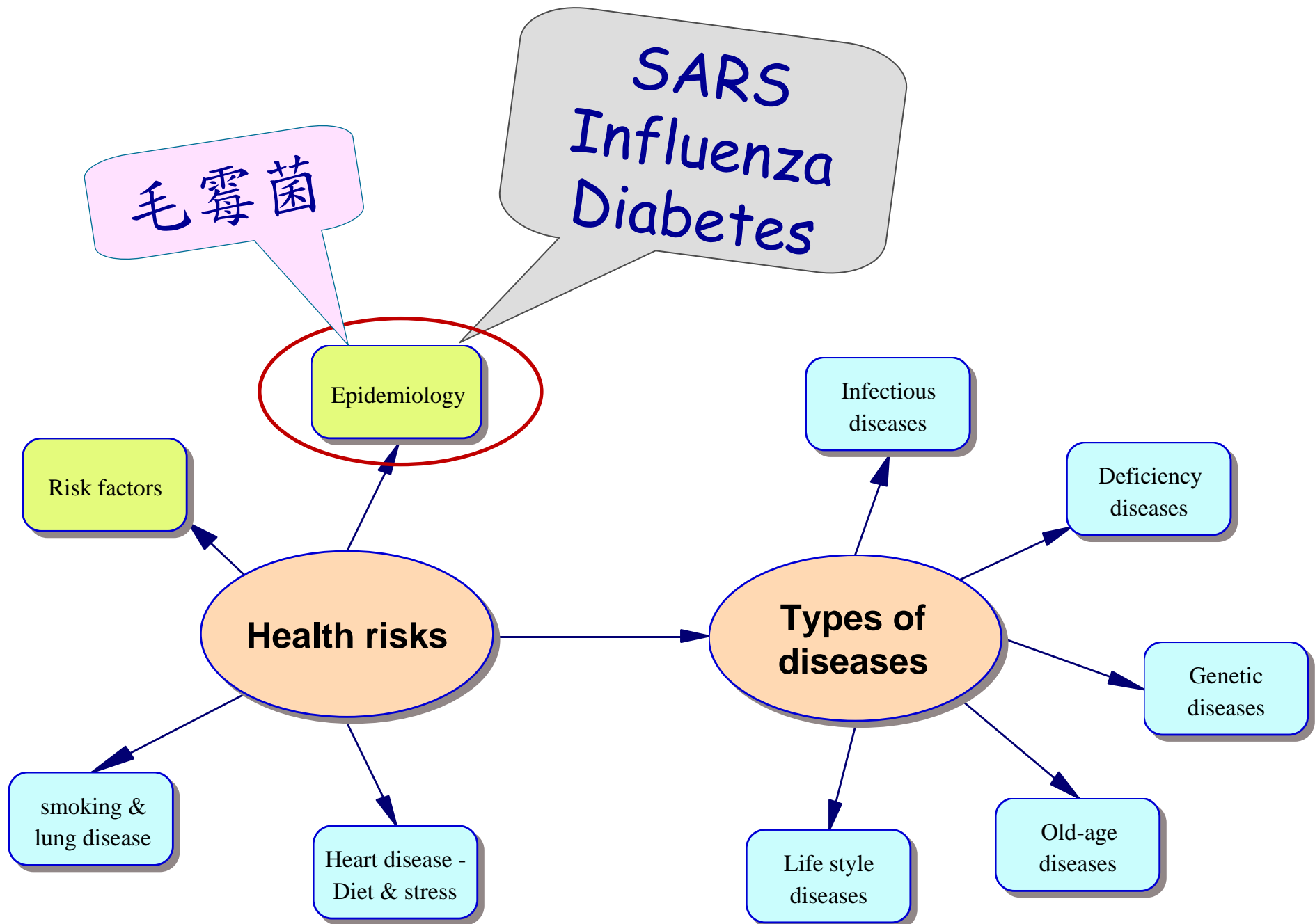


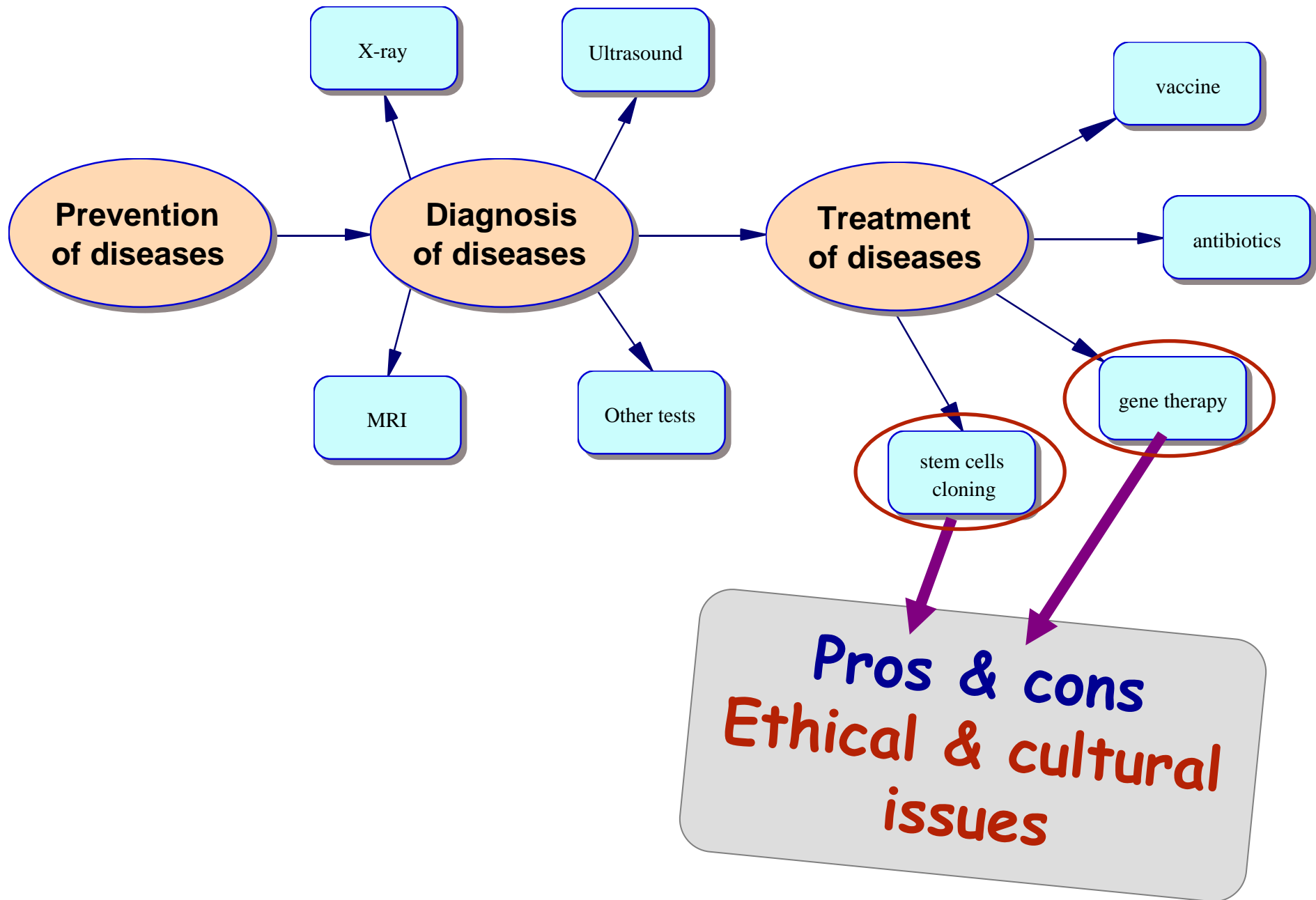


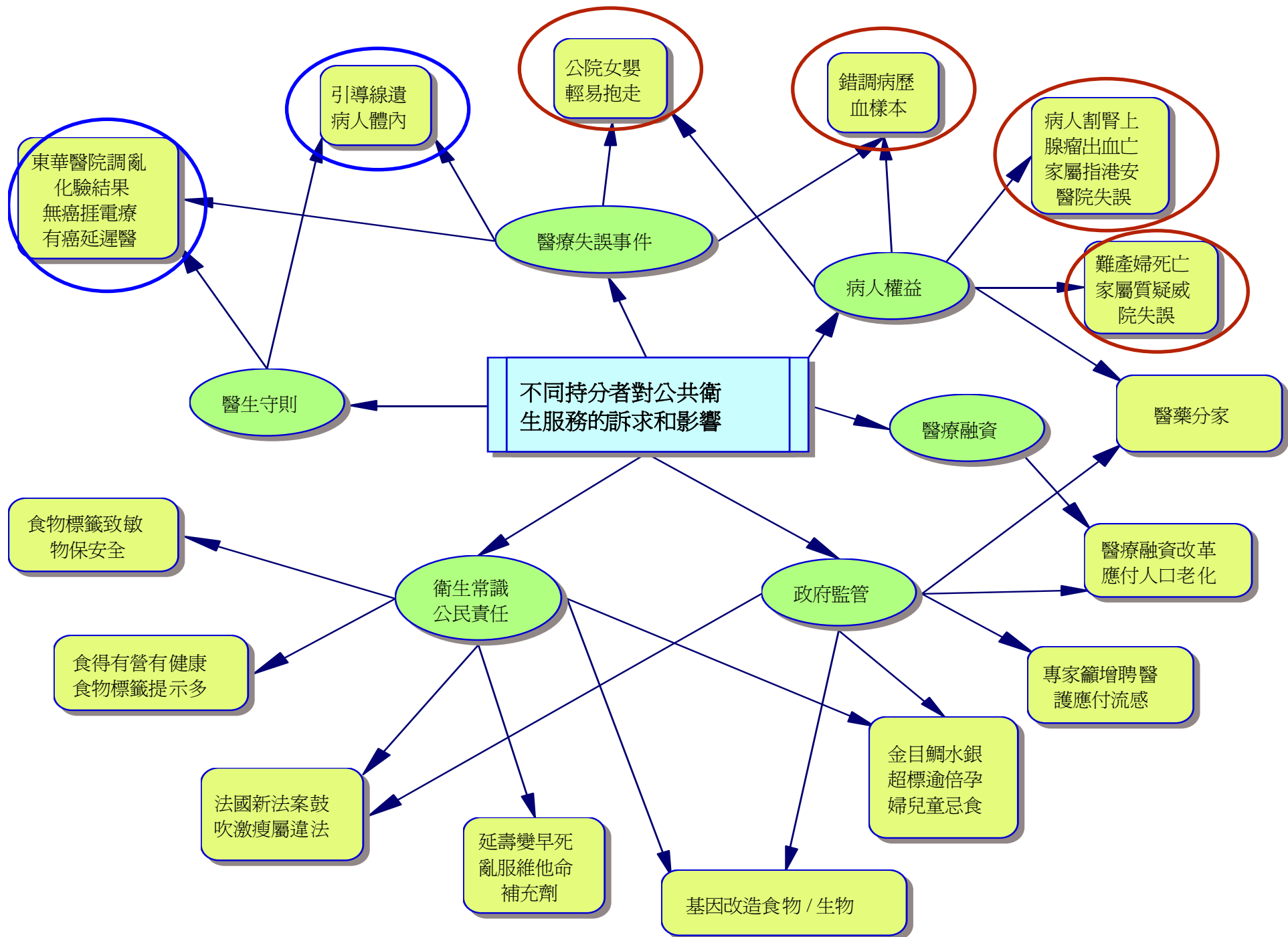
The Cow pock ___ or ___ the
Wonderful Effects of the new
Inoculation!

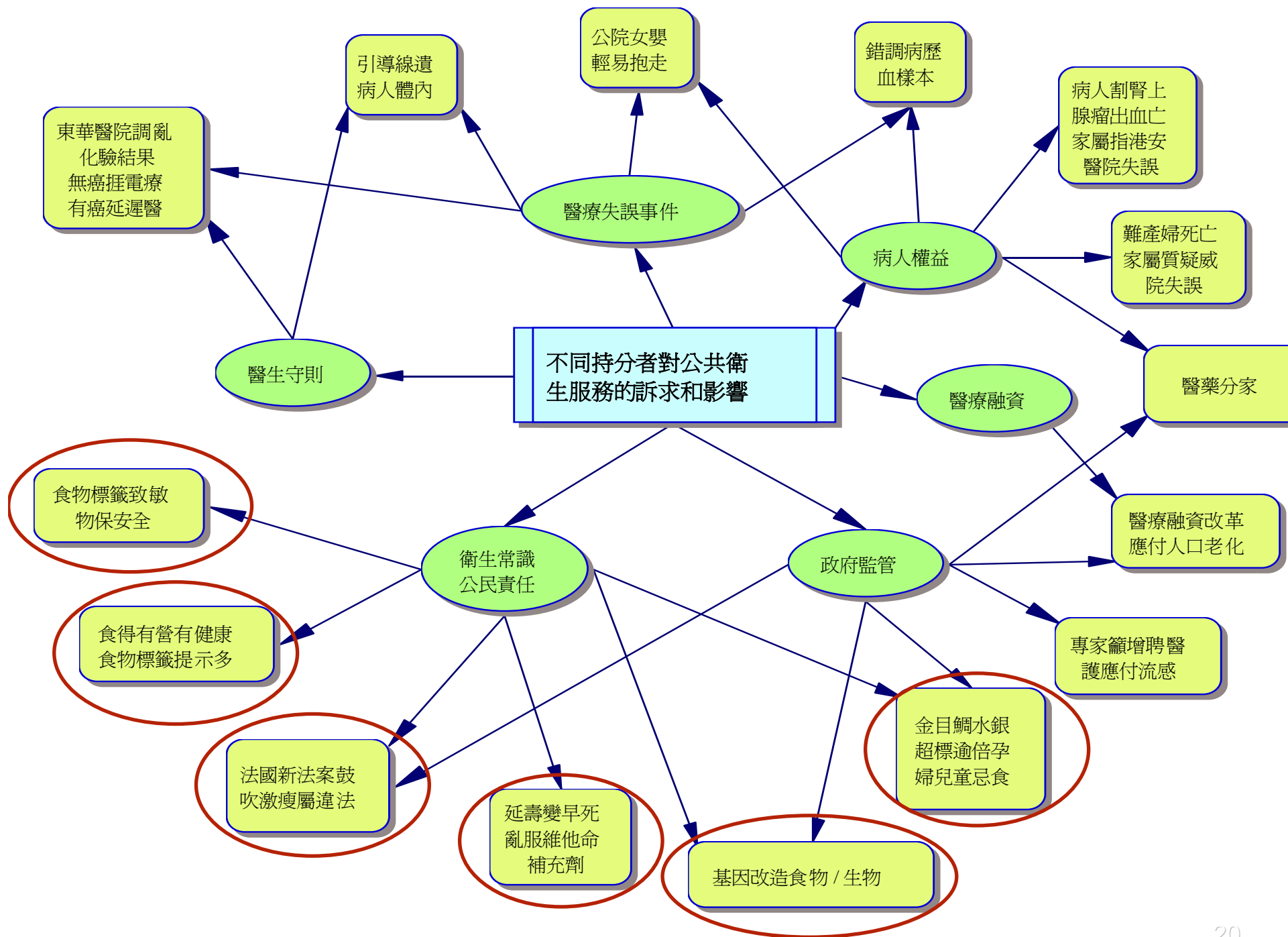
The publication of Anti-Vaccine Society











醫生守則

病人權益

醫療失誤

瑪麗7病人腸染霉菌

醫療失誤

產婦催生失血亡裁死於
意外

由保險公司決定醫療需要
辣醫保越俎代庖

病人權益

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醫生守則

醫生涉與不同精神科女病人同居跳舞

明報 2008.11.28

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