

Medical assets for peace and conflict work

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Peace-health interaction:

- **Values:**
Medical values relevant for peace work
- **Historical background:**
The disease history of war, or the war history of diseases: infections as an example
- **Opportunities and strategies:**
Biological lessons about defence and conflict solution
Mechanisms for relating health values and peace

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Values for health professionals

- Promote health
- Prevent disease, somatic and psychiatric
- Cure: where possible
- Relieve: often
- Comfort: always
- Do no harm

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The misery of violence* and war

- Destruction of health
- Obstruction of preventive action
- More to cure, under less favourable conditions
- Much more to relieve
- Mental healing process much more difficult
- Does harm

*Physical, structural, cultural

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Diseases and war

- Mortality
- Trauma
- Infections
- Psychological morbidity
- Sequels, somatic and psychological

War is a medico-social catastrophe - always

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Death from misery/infections vs. trauma in war:

- 18th century: American Civil war: 2 vs 1
- 19th century: Napoleonic wars: 6 vs 1
- 20th century: Modern warfare: 9 vs 1

Breakdown of access to clean water,
sanitation, sheltering

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Infections and war

- Typhus – rickettsia in lice
- Pestilence – bacteria in sick rats, causing the Black Death
- Cholera – bacteria in refugee camps
- Sexually transmitted diseases – bacteria and vira – rape
- Malaria – parasite in children, malnourished children as "early warning" of famine

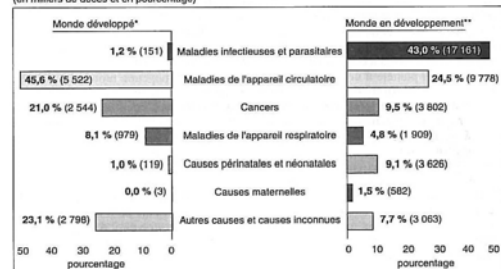
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Society's effect on epidemics: The effect of poverty

- Mortality by infections: 1% in rich countries vs. 43% in poor countries
- Vulnerability of children, and of women and handicapped persons
- The neglected diseases: in soil, dust, flies
- Lack of ordinary health care infrastructure

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2. – Causes de décès, monde développé et en développement en 1996
(en milliers de décès et en pourcentage)



* Y compris les pays à économie en transition. ** Y compris les pays les moins avancés.
Les nombres entre parenthèses indiquent les décès en milliers.
Source : OMS 97079.

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Being rich: not only happiness

- Fear
- Platitude
- Much wants more
- Technology abuse

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Epidemics' effect on society

- New deal after Black death
- Cleanliness, food choice: Bible
- Win or lose battles: Typhus, pestilence
- Toll on young artists: Tuberculosis
- Food industry: Prionic disease, bird flu
- Toll on labour force: HIV
- Fear of others: Syphilis

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Science and politics: The fallacy of easy predictions

- **Linear thought**
Physics: Push the ball, it rolls
Medicine: Give antibiotic, kill bacteria, patient gets well
Politics: Shoot, kill, enemy weakened, you win
- **More complex thought:** limits to our control

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Problems in different sciences:

- **Biology:** Linear thought usually too simplistic
- predictions are possible, but only when taking into account the interaction between gene and environment. Views from “the outside” possible (counting, measuring). Value judgment inherent in choice of object
- **Social science:** Positivistic approach problematic, i.e. society is not governed by laws independent of the actors. Value judgment inherent in the scientific process, contribute to shaping outcomes.

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Useful scientific predictions

- Technology advances
- Medical advances
- Potential benefits in human relationships
- Global understanding

Can predictions in biology give ideas for wise action in social sciences?

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Infectious and social threats analogy

- | | |
|---|---|
| • Epidemic | • Armament abroad |
| • Symbiosis virulence | • Deceit, fraud, treason |
| • Invasion, local inflammation ¹ | • Invasion, local conflict ¹ |
| • Invasion, generalised inflammation | • Invasion, generalised conflict, war |

1=Normal condition !

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Conflict solution analogy

- Avoidance
- Conciliation
- Keep in check
- Split germ and non-human host
- Favour less virulent germs
- Fight, try to kill or stop multiplication

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Conflict solution analogy

- | | |
|---|-------------------------------------|
| • Avoidance | • Avoidance |
| • Conciliation | • Negotiation |
| • Keep in check | • Non-violent neutralisation |
| • Split germ and non-human host | • “Split and rule” |
| • Favour less virulent germs | • Teach doing good through practice |
| • Fight, try to kill or stop multiplication | • Fight, try to kill or disarm |

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Biological defence against infections:

- Epithelium (skin, mucosal linings)
- Connective tissue (mesenchymal) defence: connective tissue + blood vessels + blood cells
- Specific infectious defence, mediated by lymphatic cells
- Biological control, mediated by competitive agents

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Epidermal analogy:

- Attack on skin:
 - mechanical barrier
 - ciliary "brooms"
 - mucous to avoid attachment to surfaces
 - cell production of antibiotics, etc.
- Social conflict:

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Epidermal analogy:

- Attack on skin:
 - mechanical barrier
 - ciliary "brooms"
 - mucous to avoid attachment to surfaces
 - cell production of antibiotics, etc.
- Social conflict:
 - defence tower or line
 - legal interdiction, humour, sarcasm
 - ignoring, hiding
 - chemical warfare

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Mesenchymal analogy

- Intruder in body:
 - Mesenchymal defence, mediated through large, resting eating cells:
 - -if a few microbes: Wake up and eat them!
 - -if more microbes: Eat and produce chemical signal substances calling for eating/killing cells in the blood
- Social conflict:

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Mesenchymal analogy

- Intruder in body:
 - Mesenchymal defence, mediated through large, resting eating cells:
 - -if a few microbes: Wake up and eat them!
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- Social conflict:
 - Legislation. Local police
 - Chase, arrest
 - arrest, anti-riot police

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Specific infection defence analogy

- ...mediated by lymphatic cells with "memory":
 - Previous adaptation necessary
 - Activation through chemical signals
 - Antibody barriers
 - Killing by lymphocytes
- Social conflict:

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Specific infection defence analogy

- ...mediated by lymphatic cells with "memory":
- Previous adaptation necessary
- Activation through chemical signals
- Antibody barriers
- Killing by lymphocytes
- Social conflict:
- criminal police
- old acquaintances of police
- police radio
- handcuffs
- arrest

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Biological control: Introducing or favouring competitors

- Probiotic bacteria:
- -stimulate defences without causing disease
- -compete with virulent bacteria
- Local species:
- -compete with or kill vector
- Social conflict:

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Biological control: Introducing or favouring competitors

- Probiotic bacteria:
- -stimulate defences without causing disease
- -compete with virulent bacteria
- -compete with or kill vector
- Social conflict:
- teach good, do good
- Humanitarian work. make love, not war.
- Promote disarmament. Refuse medical role in torture

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Further opportunities and strategies of health personnel

Action towards the health care system

- Humanitarian ceasefire to vaccinate
- Treating on both sides
- Doing one's job, prevent and treat

Action towards the war machinery

- Information about, and fight against weapon systems (mines, ABC-weapons, predict medical consequences)
- Documenting war trauma, and acting as a witness
- Promote understanding of war as a public health catastrophe

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Summing up:

- Understanding through both facts and fiction
- Infections contribute to shaping society, and social conditions influence the emergence and course of infectious disease
- Science can contribute to understanding threats, and what to do about them
- Many biological defence mechanisms have their possible analogy in social science
- Understanding medicine may throw light on social conflict, and practising medicine may favour violence disclosure and conflict solution

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