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2 Key Points

- Additional radiation is bad for people's health
- Accidents (and failures) happen

Low dose radiation and health

- Evidence minimised in Royal Commission report
- Like Climate Change -there is clear international consensus

Low dose radiation- eg Xrays



- Unborn child most at risk.
- 40% increase in cancer , especially leukemia

Many very large studies in humans

BMJ 2005

- **407,391** nuclear industry workers
- **5.2 million** person years

1-2% deaths in this group attributable to radiation exposure

BMJ 2015

- **8.2 million** person years
- **80% of leukemia deaths** were attributable to radiation exposure
- **Clear support** for harm at low and very low doses- no safe lower dose

Many other studies

Just a few:

- Hiroshima and Nagasaki survivors
- Radon gas in houses
- Cardiac CT imaging
- CT scans in Children

All show evidence of harms to health at low doses.

Risk worse for females and worse for children

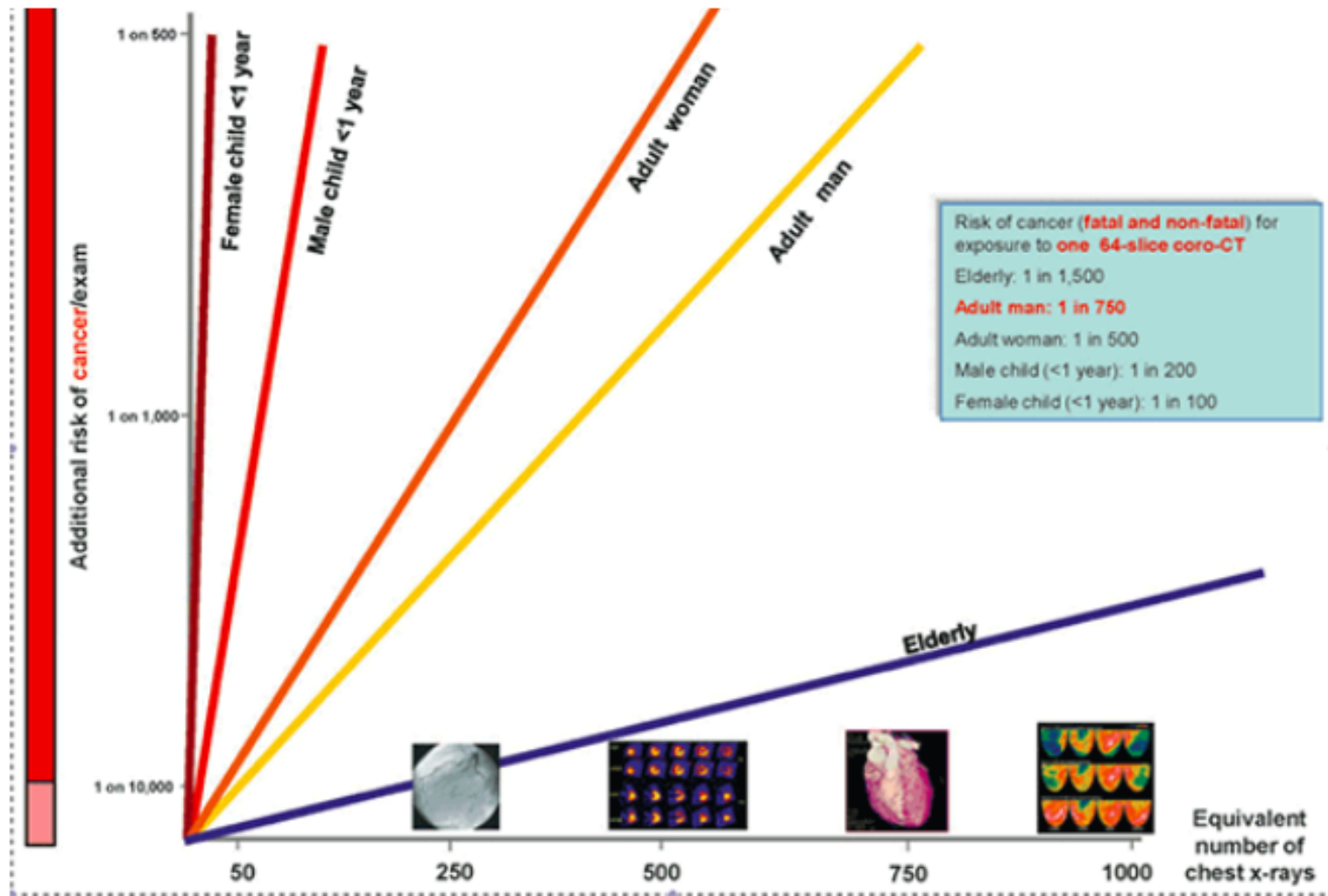


Figure 1. Risk of lifetime cancer risk and radiation exposure

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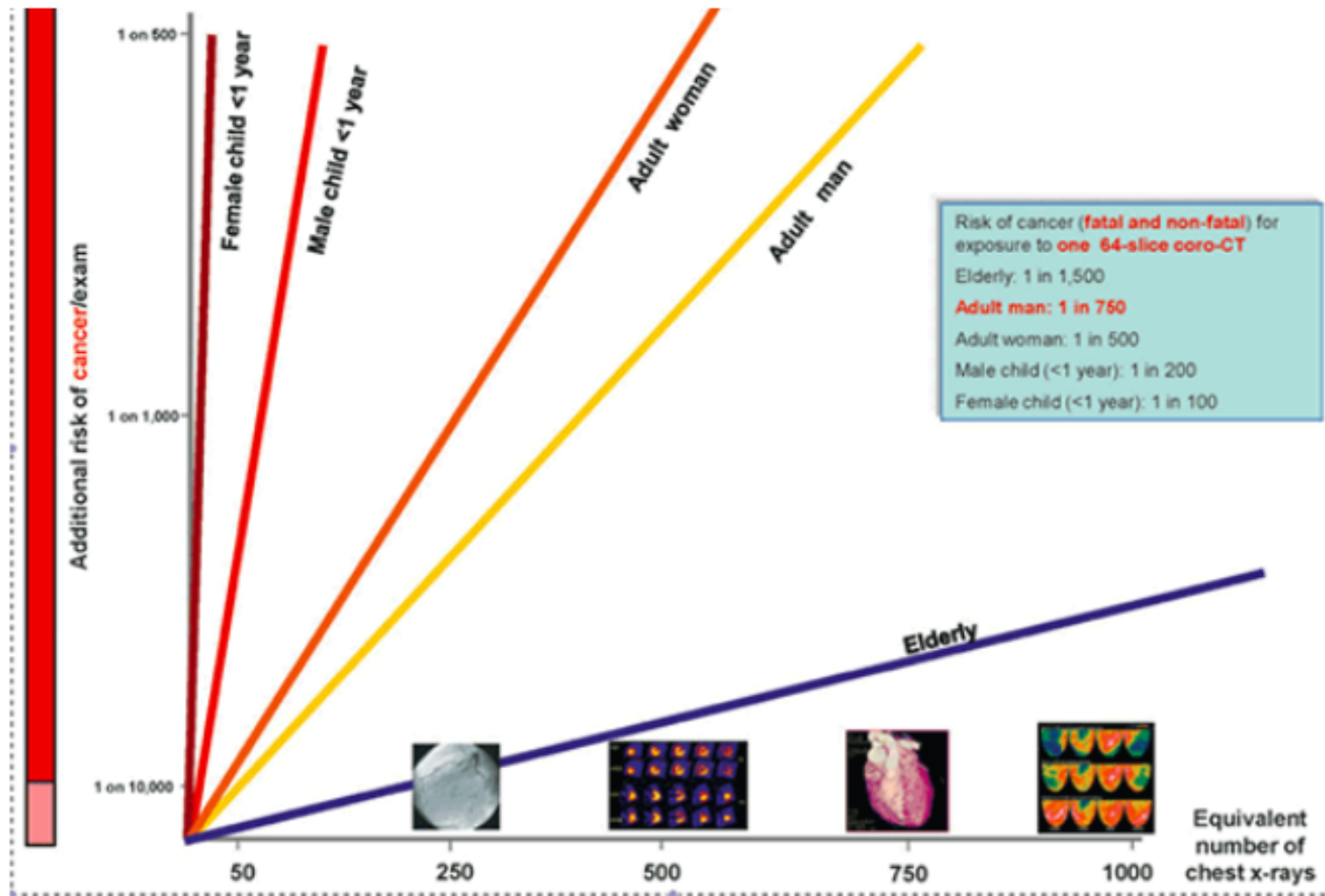


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International consensus clear

US National Academy of Sciences BEIR (2006)

“A comprehensive review of the biology data led the committee to conclude that the risk would continue in a linear fashion at lower doses without a threshold and that the smallest dose has the potential to cause a small increase in risk to humans.”

i.e. there is no “safe lower dose”



Accidents happen

An optimistic industry

No accidents

Barely mention it has never been done successfully anywhere.

Search: Let the facts speak- nuclear

Human Nature

**“Cost Cutting,
Corner Cutting ,
Loss of Safety Culture.”**

WIPP plant New Mexico

“Falsification of data”

Yucca Mountain Nevada

“A man made disaster” (Japanese Parliament)



“A man made disaster” (Japanese Parliament)



Human Nature 2

“Just plain got it wrong”

Both German Deep Waste repositories

“Cosy relationship between politicians and industry.”

Exemptions from Freedom of Information, Environment Protection Act, Aboriginal Heritage Act, Water Resources Act Mining and Natural Resources Act.

Olympic Dam in SA

Human Nature 3

- Extremists
- Mental Illness

Finland

No waste yet = no mistakes yet.

Finland facility-

Reducing existing risk from their own nuclear waste.

In contrast:

Importing other people's nuclear waste –

CREATING risk to Australians where there was not risk in the first place.

Medical Research- in a nutshell

A lot of long term human based research studies

- Support increased risk of harm with increased radiation
- No safe lower dose

Human Nature

- Accidents
- Deliberate harm
- Cost cutting, corner cutting
- Complacency (loss of safety culture)
- Falsifying data
- Cosy relationships with politicians
- and just plain getting it wrong.



Public health perspective.

This proposal risks damaging
the health of
many generations
of South Australians.