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Prevention, recognition and compensation of asbestos-induced diseases (AD)

- Which diseases are asbestos-related?**
- Recognition of AD**
- Compensation issues**
with its ethical impact and economic burden

World-wide

PANDEMIC

of asbestos-induced diseases

Pandemic – *Excessive occurrence of a disease in a large portion of the world*

Asbestos-related deaths worldwide: c. 107,000 per year

Europe: 15,000 per year 40/day

Asbestos-related Diseases:

All forms of asbestos cause **asbestosis, pleural plaques/fibrosis, lung cancer, larynx and ovarian cancer, mesothelioma.**

Further, also increased risks of gastrointestinal cancer and non-Hodgkin lymphoma were reported in asbestos workers. The carcinogenic potency of chrysotile is lower than that of the amphiboles. Nevertheless, given the almost exclusive use of chrysotile since the 80s, it has caused (and causes) a substantial number of mesotheliomas and lung cancers. The assertion that chrysotile can be safely used “under controlled use conditions” is not substantiated by recent investigations.

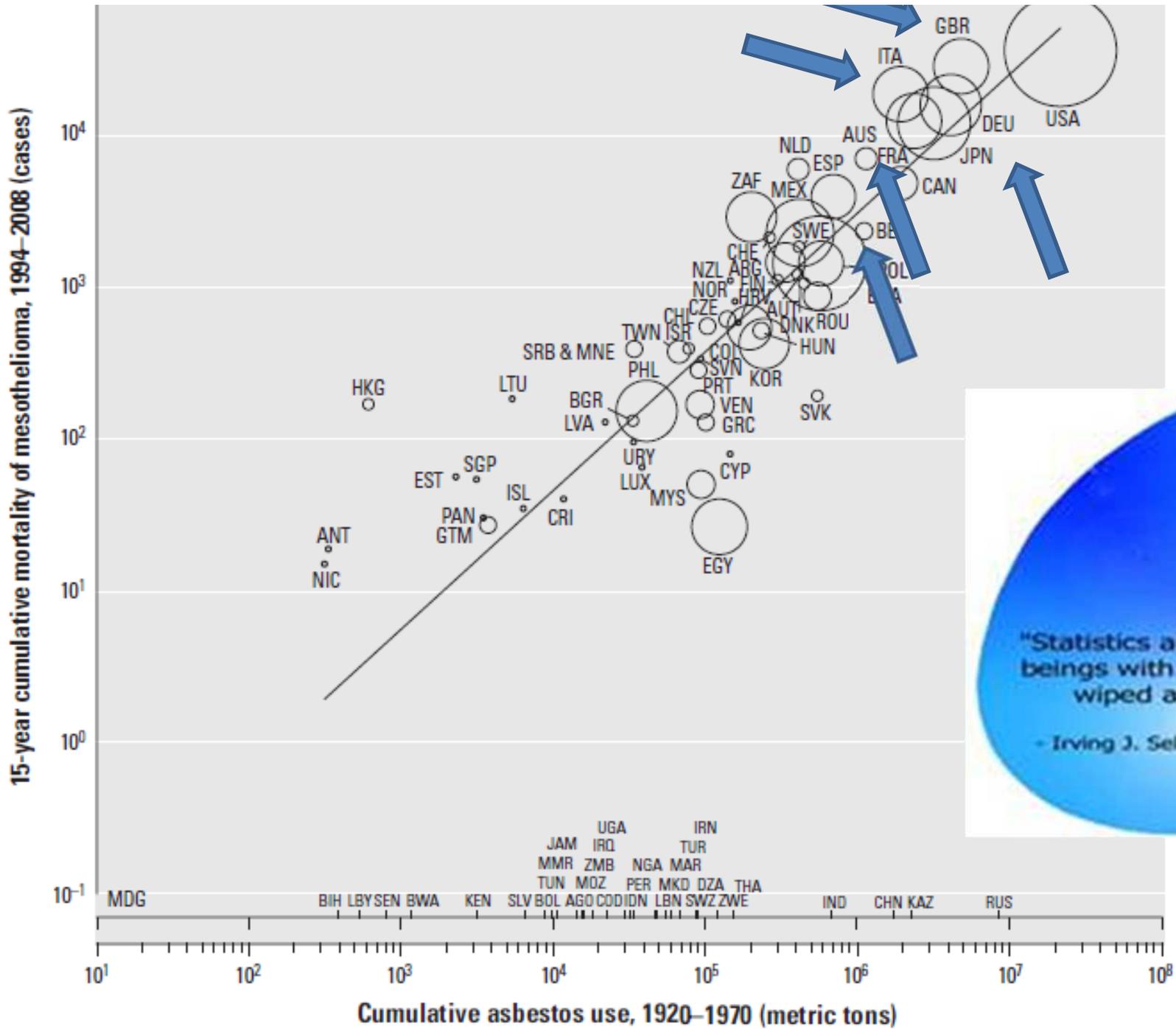


Figure 4. Relationship between 15-year cumulative mortality of mesothelioma (1994–2008) and cumulative



KLUGE, HEINZ, MD

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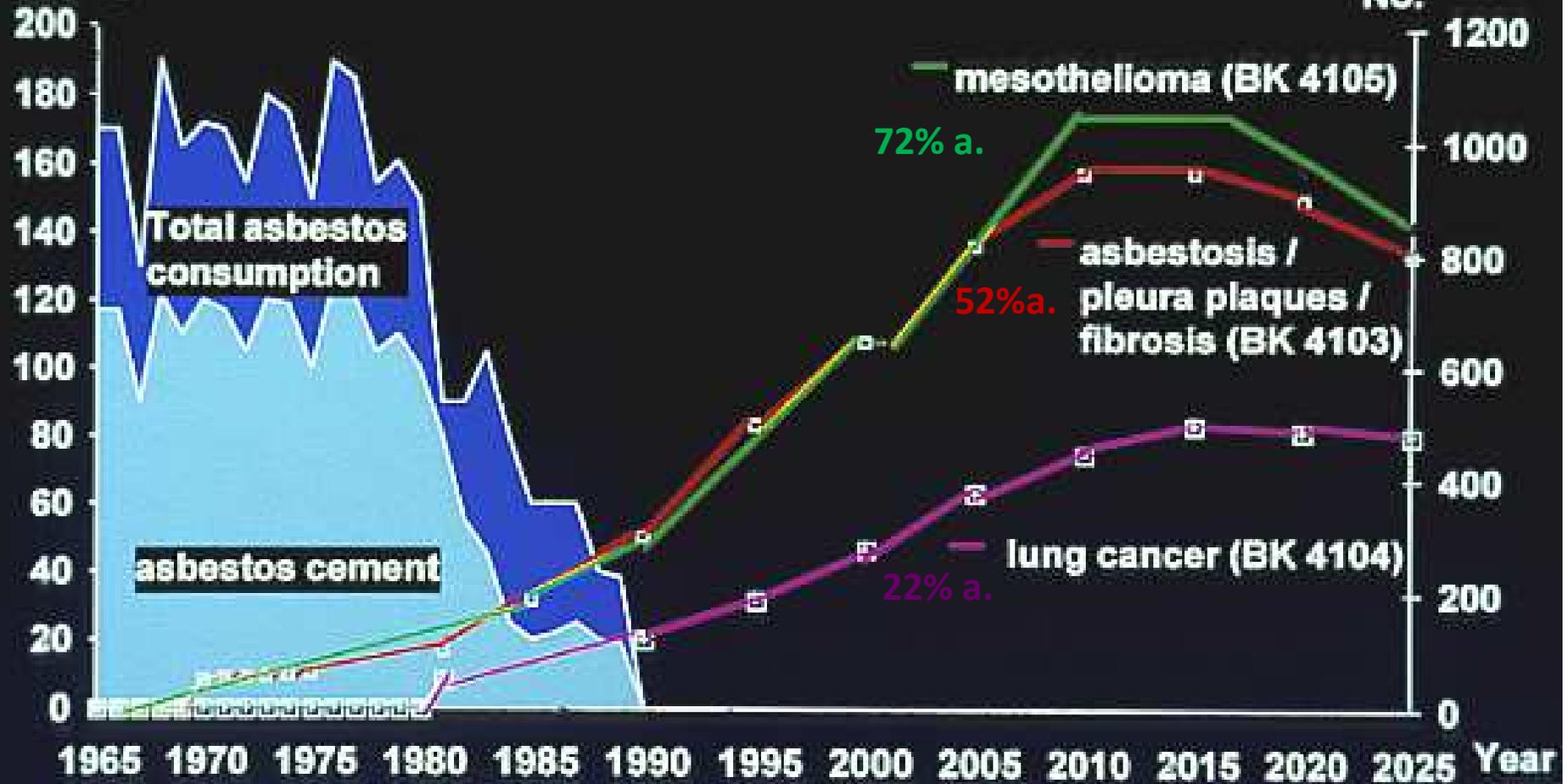
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Recognized occupational diseases

Asbestos consumption in Germany
[x 1000 t]

2012: 8949 claims, 3657 ackn., 2235 comp (25%)



total asbestos consumption
 asbestos cement

Unsound science used to deny compensation claims of people with asbestos-related diseases (examples)

- 1. Initial, but not subsequent exposures to asbestos contribute to the pathogenesis of mesothelioma (La Vecchia and Boffetta, 2012)**
- 2. Restrictive practices of insurances based on misinterpreted lung tissue analyses, e.g. by Dr. Roggli et al. (2005)/ the Pathology sections of the Helsinki Consensus Report 2014/1997**

Citation from the Helsinki Criteria Consensus Report re commendations referring to pathological diagnosis ([Wolff, et al. 2014](#)) (page 1, right column, 3rd paragraph):

“For clinical purposes, the following guidelines are recommended to identify persons with a high probability of exposure to asbestos dust where the Helsinki Criteria 1997 were repeated

- *over 0.1 million amphibole fibres (>5 µm) per gram of dry lung tissue or*
- *over 1 million amphibole fibres (> 1 µm) per gram (100 asbestos bodies per gram of wet tissue) as measured by electron microscopy in a qualified laboratory or*
- *over 1000 asbestos bodies per gram of lung tissue (100 asbestos bodies per gram of wet tissue) or*
- *over 1 asbestos body per millilitre of bronchoalveolar lavage fluid as measured by light microscopy in a qualif.lab*

Asbestosis: Histological criteria for diagnosis

Asbestos bodies are the hallmark of asbestos exposure. They are golden brown, beaded, segmented or dumbbell shaped structures that are formed when macrophages deposit an iron-rich protein and mucopolysaccharide coating on the surface of asbestos fibers that have been deposited in the lung parenchyma. They may also be found in regional lymph nodes. This coating is typically deposited on fibers that are at least 20 microns in length. Other mineral fibers may also be coated with similar material to form non-asbestos ferruginous bodies or pseudoasbestos bodies. Many of these have black or broad yellow

Comment:

As opposed to the statement of Roggli and in the Helsinki Criteria 2014 (“*Asbestos bodies are the hallmark of asbestos exposure*”; pages 127-128) the qualified occupational history of asbestos exposure is the respective hallmark.

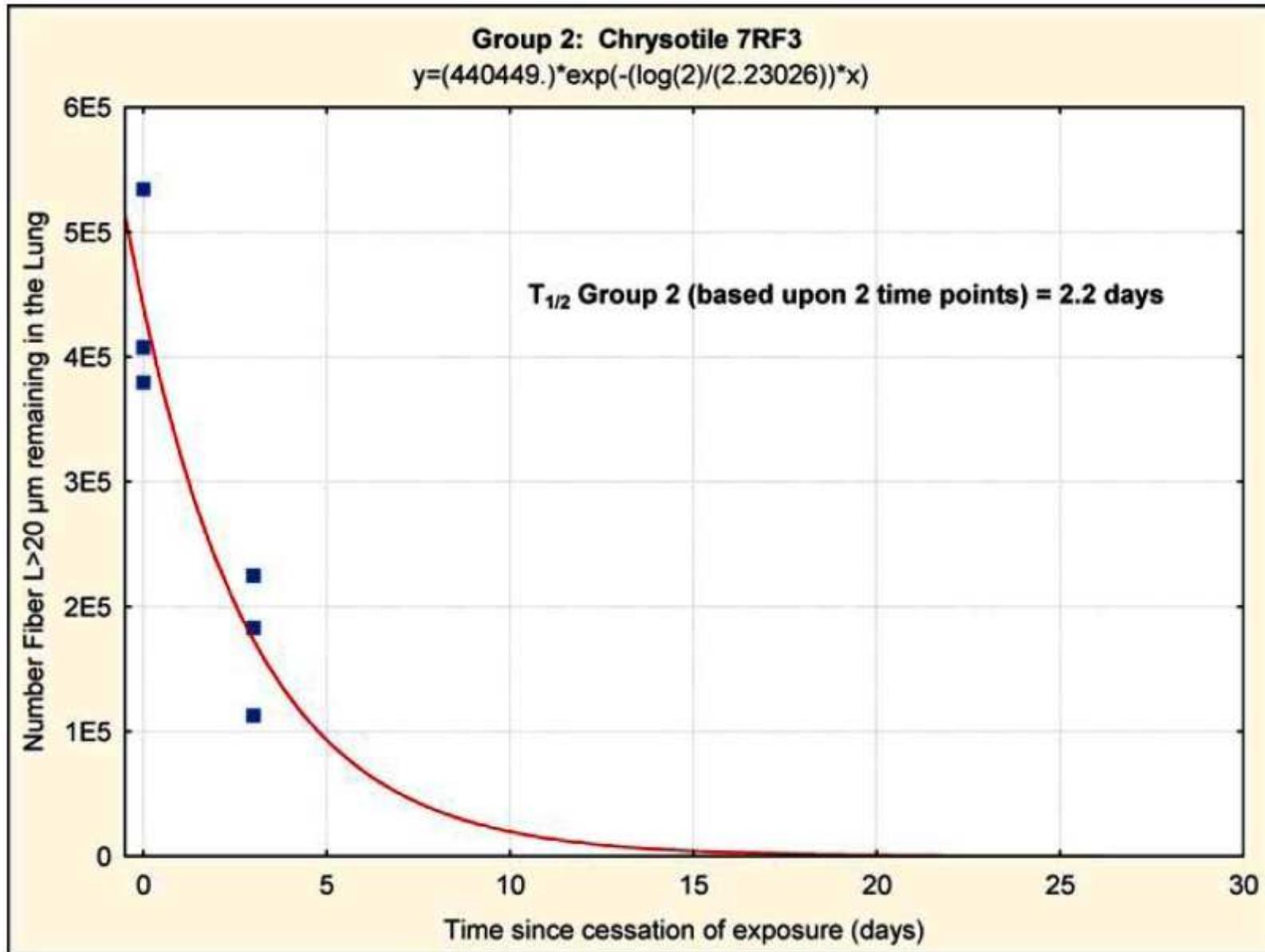


FIG. 11. Group 2, chrysotile, clearance half-time of fibers longer than 20 μm of 2.2 days. It should be noted that these clearance half-times are based upon fitting an exponential clearance function to only two time points; however, they do provide a clear demonstration that the longer chrysotile fibers are rapidly disappearing from the lungs.

**From the protocol of the OHIO APPEAL COURT, COUNTY OF CUAHOGA,
and COURT OF COMMON PLEAS, CIVIL DIVISION Case Nr. 793085 of
April 18, 2014. Dr. Roggli cross-examination**

1 A. The way I use significant exposure, it should
2 be an exposure that is either been shown in
3 epidemiological studies to have an increased risk of
4 mesothelioma, or an exposure which has been shown
5 through fiber analysis studies to result in increased
6 amounts of asbestos above a control population in the
7 lungs.

8 Q. You've also, it's your opinion, is it not,
9 doctor, that very low levels of exposure above
10 background to some types of asbestos have been
11 demonstrated to cause mesothelioma?

12 A. Yes. That's true particularly for amosite and
13 crocidolite. **I don't believe it's been shown to be**
14 **true for chrysotile.**

From the protocol of the OHIO APPEAL COURT, COUNTY OF CUAHOGA, and COURT OF COMMON PLEAS, CIVIL DIVISION Case Nr. 793085 of April 18, 2014. Dr. Roggli cross-examination

6 Q. And you've **accepted 13,000 retainers** in your
7 career; isn't that correct?

8 A. Yes, sir.

9 Q. And the average of those -- now you charge
10 600, in the past you charged less. We figured an
11 average of about 500. I think you gave me, that
12 number was your estimate overall, that would be about
13 seven and-a-half million dollars?

14 A. Yes, sir. Or six-and-a-half, isn't it?

15 Q. You are right. Thanks. **So 6.5 million.** That
16 money doesn't go to Duke, does it?

17 A. Yes.

18 Q. It goes to **the private diagnostic clinic.**

Asbestos scandal *Irresponsible policies could cause an epidemic of malignant lung disease.*

The minerals industry has long tried to convince regulators that white asbestos - or chrysotile - is safe when handled properly. It argues that only the already controlled forms - blue and brown asbestos, known collectively as amphibole - are of concern.

To support this, industry advocates point to scientific data and studies. Yet although the relevant literature is a mire of conflicting results, this should not be seen as an endorsement of their position. Rather, **it reflects a string of industry-sponsored studies designed only to cast doubt on the clear links between chrysotile and lung disease.** These are familiar tactics and several countries, including Britain, have seen through them and made the correct decision to ban all forms of asbestos, all of which have been proven to be carcinogenic in humans.

Summary

- World-wide pandemics of asbestos-induced diseases
- Significant underreporting of AD in many countries
- Heterogeneous compensation systems
- Restrictive compensation practices based on unsound science have to be stopped.