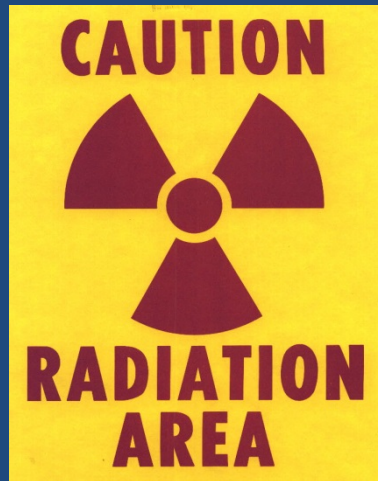


Low doses of radiation – hot spot in dose perception and radiological protection



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In the presentation I am going to show my personal view about low doses of radiation and how it is communicated in Poland.



Polish experience with nuclear power plants are unique



Polish Nuclear Power Program

High acceptance for
building nuclear
power plant





**Without public
acceptance there will
be no nuclear power
plant in Poland**



Electricity prices in countries close to Poland 2015

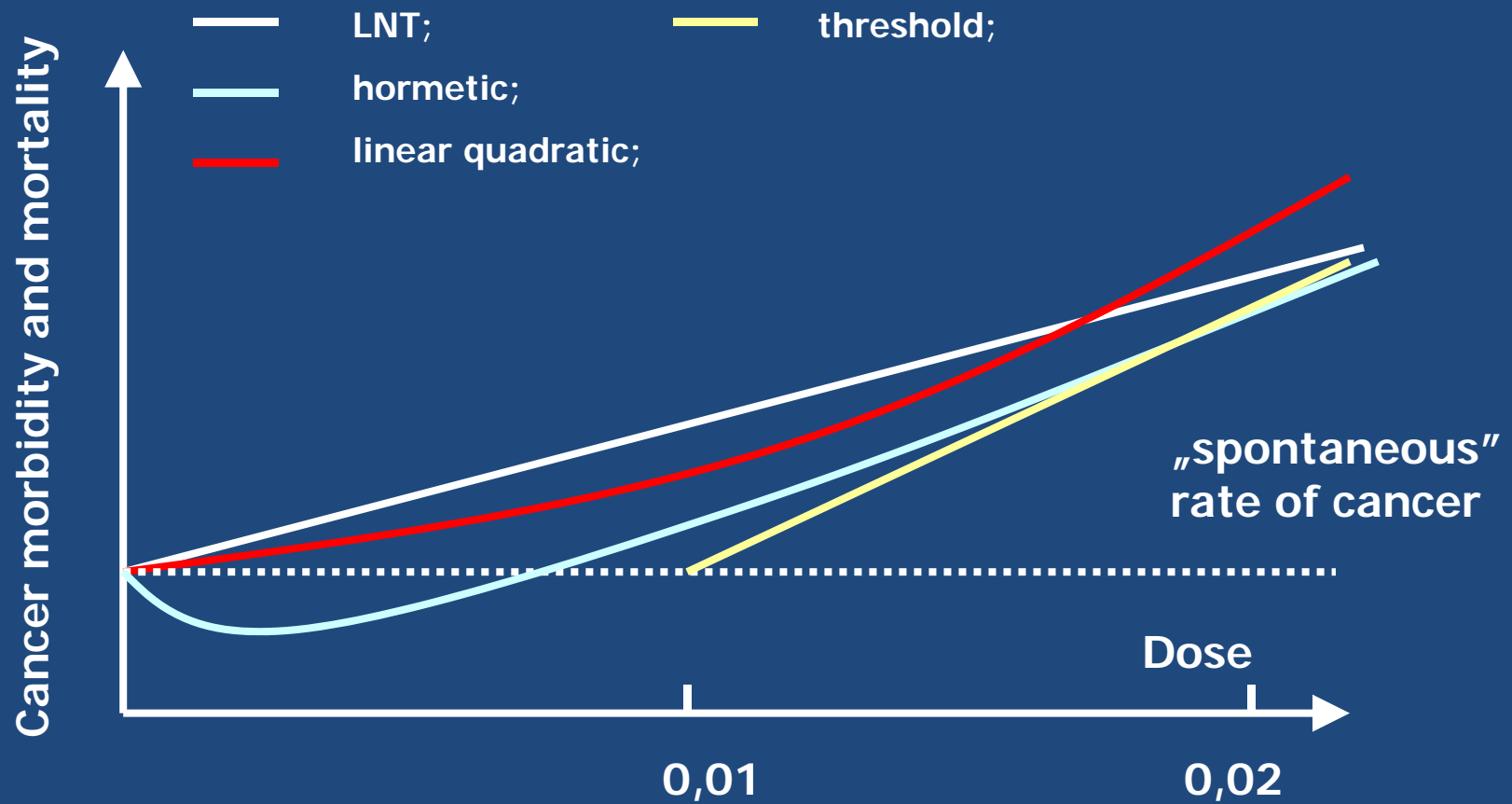


Mean price in Euro for 1 MWh on „energy stock or market” – data by PGE.

Lobbing group of experts claims:

- Never ever connect the term risk with low doses of radiation. Low doses of radiation must be connotated as beneficial.
- LNT model is scientific corpse. Using it as a base of radiological protection is or wrong or even a fraud.

Low doses of radiation – different models



These are real experts

- Perfect scientific carriers;
- Most of them are physicist;
- They have super social skills – they are active in internet, education, newspapers , radio and television;
- They try to push radiation protection limits;
- They are not the only ones e.g. dr Sueo Machi, former director of Japan Atomic Energy Research Institute and former deputy – director of IAEA in open words claimed that radiation protection limits in Japan are not reasonable and should be changed;

UNSCEAR United Nations Scientific Committee
on the Effects of Atomic Radiation

BIOLOGICAL MECHANISMS
OF RADIATION ACTIONS AT
LOW DOSES

A white paper to guide the Scientific Committee's
future programme of work

EVALUATING RADIATION SCIENCE FOR INFORMED DECISION-MAKING



UNITED NATIONS

Doses less than
100 mSv do not
cause cancer.

**2012
publication**

Join S.A.R.I. LNT—The Guide for the Perplexed Members >

Petition for rulemaking regarding 10 CFR Part 20, Standards for Protection Against Radiation, based on new science and evidence that contradicts the Linear No-Threshold (LNT) hypothesis.

Resolving the Issue of the Science of the Biological Effects of Ionizing Radiation

Whack-A-Mole Model: Towards a Unified Description of Biological Effects Caused by Radiation Exposure

Commercial Nuclear Power

MISSION:

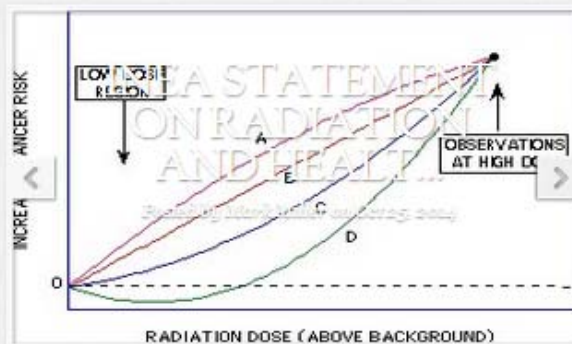


To help prevent unnecessary, radiation-phobia-related deaths, morbidity, patient's refusal of medical imaging, dissuading the study of low-dose radiation therapies, and injuries associated with nuclear/radiological emergencies through countering phobia-promoting misinformation spread by alarmists via the news and other media including journal publications.

BOOKMARKS

- 21st Century Science & Technology
- ANS - Nuclear Cafe
- ANS - Nuclear Connect
- ANS - Public Information
- ANS - Teacher's Information
- Atomic Insights
- Border's Dictionary of Health Physics

ar Safety



CATEGORIES

- Adaptive Response
- Commercial Nuclear Power
- Fear, Uncertainty & Doubt
- Featured Articles
- Fukushima
- Hormesis
- Letters Sent by SARI
- LNT Hypothesis
- Nuclear Medicine
- Radiophobia
- Scaremongering

What's wrong with being ...

May 1, 2015 by Mark Miller

Download (PDF, 35KB) The cost of trying to reduce harmless radiation exposures even more is exorbitant, and "predicting"...

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SARI Comments on draft regulat...

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Importance of Adaptive Response in Cancer Prevention and Therapy

Posted on May 1, 2015

What's wrong with being cautious?

Posted on May 1, 2015



Could Small Amounts of Radiation Be Good For You? It's Complicated.

Posted on Apr 30, 2015

SARI Comments on draft regulation: basis of potential

http://radiationeffects.org/

No reason to fear low-dose radiation. The LNT Model - why it is a problem, why it was adopted, why it persists, and how it can be overcome

by a group of professionals from Scientists for
Accurate Radiation Information (SARI)

- (Please see the end of the article for the list of authors)
- January 20, 2015

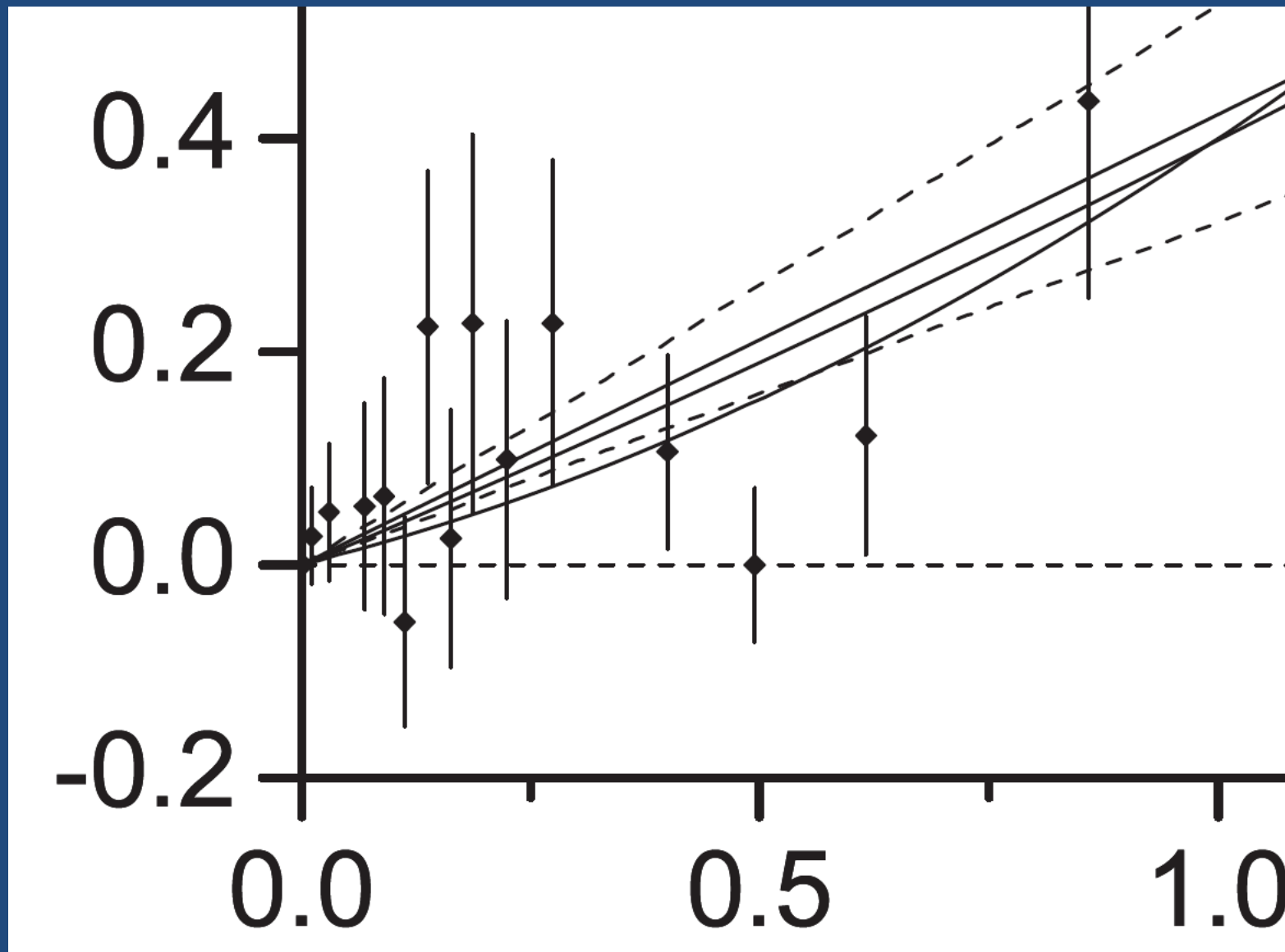
Why the LNT model was adopted: The LNT model was initially adopted by the Genetics Panel of the National Academy of Sciences (NAS) Biological Effects of Atomic Radiation (BEAR) I Committee in 1956. Its summary report made statements such as: *"Even very small amounts of radiation unquestionably have the power to injure the hereditary materials" and "there is no such figure other than zero" (for amount of radiation that is genetically harmless).* The full report was published in the New York Times and received huge publicity initiating the fear of low-dose radiation. A year later, letters exchanged among the committee members included statements such as:

"I, myself, have a hard time keeping a straight face when there is talk about genetic deaths and the tremendous dangers of irradiation", "Let us be honest with ourselves—we are both interested in genetics research, and for the sake of it, we are willing to stretch a point when necessary", and "Now, the business of genetic effects of atomic energy has produced a public scare, and a consequent interest in and recognition of importance of genetics. This is to the good, since it will make some people read up on genetics who would not have done so otherwise, and it may lead to the powers-that-be giving money for genetic research which they would not give otherwise."

These exchanges are highly informative, as they indicate the true reason for the adoption of the LNT model was not that the smallest amount of radiation is dangerous according to the committee members, but their own self-interest.

Low doses of radiation – dispute without solution

- 4000 scientific works in Pubmed since 2010;
- We do not know and therefore research are necessary – MELODI platform;
- If we do not know we have to stay on the safe side;
- The reliability of published papers are not easy to judge and frequently is discredited;



Ozasa 2012, solid cancer ERR 1950 – 2003,
Radiation Effects Research Foundation

What about of radiosensitive group of people?

- Children
- People with mutation in several genes as ATM or BRCA 1/2 etc.
- Shouldn't we protect them even from low doses of radiation?

Organisms live in a field of radiation since the beginning and radiation was even in a higher rate before so was time to adapt.

- ❑ DNA repair systems – adaptation;
- ❑ But for the evolution people life can be finished when they bring up their children so till 40? And most of the cancer incidence are when people are over 60;

- There are place on the world with with high radiation background in China, Brazil, India, Iran and even in Europe;
- e.g. Ramsar in Iran with annual effective doses range between 0.7 and 131 mSv with a mean of 6 mSv (Sohrabi, M. 2012);
- Many epidemiological studies show no increased cancer risk (e.g. Tao 2000, Zhou 2005)

- Human exposure to high natural background radiation: what can it teach us about radiation risks? (2009)
- Jolyon H Hendry, Steven L Simon, Andrzej Wojcik, Mehdi Sohrabi, Werner Burkart, Elisabeth Cardis, Dominique Laurier, Margot Tirmarche, and Isamu Hayata
- Authors stated many problems with these epidemiological studies

Thank You for Your
attention

