

Low dose of radiation risk in Polish media space and in Polish Nuclear Energy Program versus recently updated results of INWORKS

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The results of LSS and 15-Country Nuclear Workers Study (2007)

Radiation dose-related increase in all cancer mortality.

TABLE 8
Comparison of Observed and Expected Numbers of Death from Selected Causes of Death in the 3- and 15-Country Studies

Cancer category	Total	Dose category (mSv)						
		0–	10–	20–	50–	100–	200–	400+
All causes								
3-Country	15,825	9,582/9,506.3	1,848/1,916	1,880/1,910	989/986.5	702/719.2	586/549.2	238/238.2
15-Country	18,993	13,608/13,692	1,960/1947	1,768/1752	855/831.8	492/476.7	268/258.2	42/35.3
All cancer but leukemia								
3-Country	3,830	2,234/2,228	462/465.4	445/476.9	276/254	196/190.5	161/147.5	56/67.3
15-Country	5,024	3,547/3,581.3	500/513.6	476/475.4	249/236.2	165/133.3	75/73.6	12/10.8
Leukemia excluding CLL								
3-Country	119	60/62.0	19/17.2	14/17.4	8/9.0	8/6.4	4/4.7	6/2.3
15-Country	196	135/132.2	23/23.6	19/22.2	9/10.4	6/5.2	3/2.2	1/0.3
Multiple myeloma								
3-Country	44	28/26.6	3/5.2	1/4.7	5/2.7	3/2.1	2/1.9	2/0.8
15-Country	83	68/66.6	4/6.3	3/6.0	4/2.5	3/1.2	1/0.4	0/0.0

Many scientists (Polish among them) state these results are doubtful and harmful for radiological protection

- *if risk exists for low dose (and low dose rate) is a statistical effects – difficult to see;*
- *extrapolation of results of higher doses to low dose (and low dose) region, especially in LSS cohort of Hiroshima and Nagasaki survivors;*
- *difficulties in taking into account confounding factors like: smoking, socio-economic status, genetic burden...*
- *there are numerous studies showing no harmful effect of low dose (low dose rate) radiation and the statistic used in other and conclusion which were drawn are questionable – e.g. LSS cohort study of atomic bomb survivors or the 15-country study of nuclear workers;*
- *The cost of radiological protection based on existing rules is too high: in USA one maybe saved live costs about 2 500 000 000 dollars which is ridiculous (Breyer 1993).*

**INWORKS study (publications since 2015)
of nuclear workers from 3 countries: USA,
UK and France. Continuation of 15-
Country study. 302 297 workers, 8.2
million person-years of follow-up**

