Comments on the NTP study

Annie J. Sasco, MD, DrPH

Former IARC-WHO Unit Chief Retired Director of Research INSERM (French NIH) at the University of Bordeaux, France

The opinions expressed in this talk are solely those of the speaker (AJS) and should not be considered as official positions of the *Inserm*, IARC-WHO or the University

Who am I?

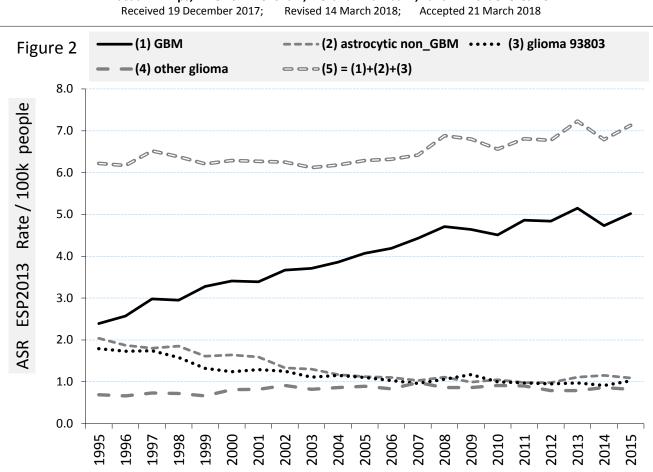
- I am a physician having spent the last 35 years working as a cancer epidemiologist
- An MD and 3 Harvard degrees (MPH, SM Bio-Epi, DrPH Epi, Bio, Evaluation)
- Researcher at the *INSERM* (French NIH)
- Former Unit Chief of Epidemiology for Cancer Prevention at IARC-WHO
- Former Acting Chief of Programme for Cancer Control at WHO
- Over the decades switching from behavioral and lifestyle risk factors to environmental ones

RFR and (non) health

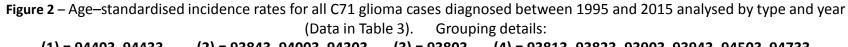
- Exposure: most probably the fastest increase in the past 30 years, becoming ubiquitous, leaving hardly anyone unexposed
- Epidemiology: very clear; in almost all studies, in particular case-referent studies, an increase in risk is seen among the « most heavily » exposed
- Experimental studies: needed to back up what is known in humans and soon will be the only studies with unexposed reference groups

Journal of Environmental and Public Health

Brain tumours: rise in Glioblastoma Multiforme incidence in England 1995–2015 suggests an adverse environmental or lifestyle factor

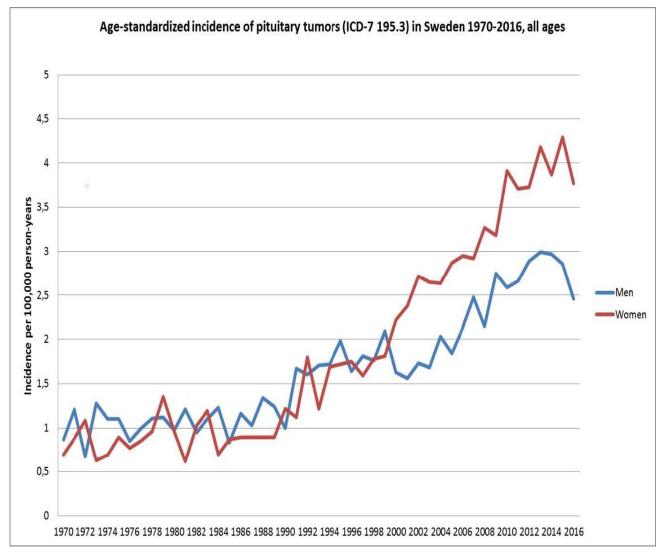


Alasdair Philips, Denis L. Henshaw, Graham Lamburn, and Michael O'Carroll



(1) = 94403 - 94433(3) = 93803 (4) = 93813, 93823, 93903–93943, 94503–94733 (2) = 93843, 94003 - 94303

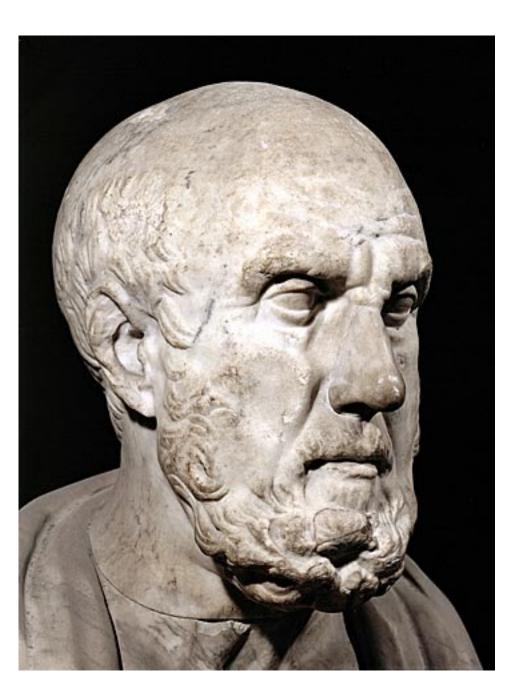
Figure 5. Age-standardized incidence of pituitary tumors (ICD-7 195.3) in Sweden 1970-2016 for men and women



Hardell, Carlberg, and Hedendahl testimony to NTP, 2018

The NTP study

- Large and well conducted study, methodologically sound
- Some questions: exposure, doses, differences between rats and mice, males and females, mecanisms, statistical considerations
- Pertinent results: type of tumors, similarity with humans, evidence of genotoxicity
- Conforted by the results of the Ramazzini study
- More evidence of carcinogenicity of RFR



Hippocrates Primum non nocere

First do no harm Epidemics (1,5) around 410 BC

Translation in the 2008 context: precautionary principle David Servan-Schreiber-Annie Sasco appeal on cell phones

Today in 2018: time to move from precaution to prevention