

What follows is taken from the year 2009, from the WEF (world economic forum) website. It shows what at least some powerful people learned in Davos, Switzerland that year. They are apparently at Abu Dhabi now, and more information on their current summit can be found on line: <http://www.weforum.org>

While I am no big fan of uncontrolled globalization, I think it is admirable that real experts are brought out to discuss real facts at such summits, after so many years of people wanting to simply ignore them...

The key two points I want to highlight from this info from 2009 are:

- 1) Cancer is a mutation of the genome. Most cancers are acquired and fewer than 15% are inherited.

and

- 2) Prevention is key, but is widely neglected. In the US, only 10% of research goes towards prevention, while 90% goes to cures.

Here is the main page in its entirety. I'm not sure every statement is perfectly valid, but overall it is useful, and the key two points (above) are found within it...

The Cancer Epidemic

The statistics are grim and staggering: Cancer is projected to overtake cardiovascular disease as the number one cause of death in the world by 2010; cancer deaths in the US totalled more than 550,000 in 2008; and 41% of Americans are expected to develop cancer in their lifetimes.

Other statistics, however, offer rays of hope: In the past two years, total deaths due to cancer have slightly decreased, despite the ageing of populations; since 1990, the death rate per 100,000

decreased 2% per year for breast, colon, prostate and male lung cancer and 1% per year for all cancers; and the five-year survival rate has doubled within the lifetime of many participants of the World Economic Forum Annual Meeting 2009, from 33% to 66%. One expert estimated that 40% of cancer deaths could be eliminated if knowledge already available is used.

Prevention holds the greatest promise; screening and diagnostic tests offer great possibilities for early detection and targeted treatment. Individualizing therapies and targeting specific genes are goals for more effective treatment. The beginning of the current cancer epidemic can be traced to the end of World War II, when lifestyle changes in most Western countries began to affect diet and physical activity. Diets in some countries have radically changed, with a dramatic increase in the consumption of sugar and fats, which have negative effects on the body's ability to protect itself against cancer. Smoking continues to be a great danger that is still not adequately recognized: 30% of cancer deaths in the US are due to smoking. China and India are huge markets for cigarettes – and for cancer. Behaviour is important: people inherit bad habits, not just genes.

Experts in genetics, medicine and cancer diagnostics provided insights and answered questions about biology, early detection, treatment and lifestyle factors.

Insights • Cancer is a mutation of the genome. Most cancers are acquired and fewer than 15% are inherited. An individual's genome can provide information to enable targeting of a specific gene; scientists are also close to determining the genome of tumours. The more specifically a gene or tumour can be identified, the better the response can be designed, with fewer side effects of treatment.

- The cost of DNA sequencing has plummeted by US\$ 14,000 in less than 10 years.

- Breast cancer is the most common cancer in the West; 40,000 women in the US will die this year from it.
- There is a great need to combine science with access. While medical diagnostics have the power to analyse huge amounts of information quickly, the problem lies in educating the public, as well as physicians, on the importance of screening to determine disease and an individual's predisposition to it. Simply knowing the family medical history will help empower patients.
- Prevention is key, but is widely neglected. In the US, only 10% of research goes towards prevention, while 90% goes to cures. Personalized prevention may be even more important than personalized medicine.
- Many screening tools are available but are not used adequately. Compliance may be best among women having mammograms, but rates for colonoscopies and PSA tests for prostate cancer are low.
- Cervical cancer is now considered completely preventable, yet 350,000 women die every year from it. Vaccinations are available for human papillomavirus (HPV), which causes cervical cancer.
- Blood tests may soon be used to diagnose many diseases, including some cancers.

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