Can knowledge of epigenetics help us improve our health?

In September 2014, one of us (MJK) spoke on the topic of epigenetics at the Annual Meeting of the Association for State and Territorial Health Officials (ASTHO). ASTHO is a national organization representing public health agencies in the United States. ASTHO members formulate and influence public health policy and practice. In the midst of a busy agenda, state health officials were interested in learning about epigenetics as a new and evolving area for public health practice. Why is that?

At the CDC Office of Public Health Genomics, we have been tracking the progress of genomics and related fields and their impact on clinical practice and disease prevention. In our evidence-based table and recent highlights of the year, we have mentioned an increasing number of genomic tests and applications for which evidence-based recommendations exist and can save lives today. Epigenetics so far has not made it on the list!

So what is epigenetics and why is it attracting interest these days? This is obviously a “hot” topic in research and the media.

Most of our knowledge about epigenetics comes from experimental studies. In humans, epigenetic changes in cancer are among the best characterized. Epigenetics can also be involved in certain birth defects that can be affected by nutritional factors, such as deficiency of folic acid in the diet.

Read full original article: Epigenetics and Public Health: Why We Should Pay Attention