A <u>recent study</u> at Lawrence Berkeley National Lab indicates that biofuels may have health benefits:

Although there are a number of uncertainties that must be addressed for a more accurate picture, these early results show that a biofuel eliminating even 10-percent of current gasoline pollutant emissions would have a substantial impact on human health in this country, especially in urban areas.

In particular:

"We found that for the vehicle operation phase of our LCIA [life cycle assessment], the annual health damages avoided in the U.S. with 10-percent less gasoline-run motor vehicle emissions ranges from about 5,000 to 20,000 DALY [disability adjusted life years], with most of the damage resulting from primary fine particle emissions," said McKone. "While county-specific damages range over nine orders of magnitude across all U.S. counties most of the damage, as you would expect, is concentrated in urban populations with the highest impact in the Los Angeles, New York and Chicago regions." Large urban regions also suffered disproportionate health damage as a result of benzene emissions at service stations and during the transporting by truck of gasoline to service stations – approximately 930 DALYs.

These co-benefits may be significant in assessing the desirability of biofuels, particularly for ethanol derived from corn, where the carbon benefits are unclear. On the other hand, the increase in food prices resulting from corn ethanol could cause an equal or even larger number of deaths globally. And on the "third hand," the increased price of corn syrup could reduce sugar intake and resulting health problems in the U.S. But these countervailing harms may not apply to cellulosic ethanol, increasing the case for some forms of biofuels.