Genetic discrimination has historical, legal and social implications and is often discussed in life science classrooms. In biology classes, this discussion often coincides with discussions of the impacts of the Human Genome Project and subsequent large-scale genomic research initiatives (COS standard 3b). Discussion of current legislation related to genetic discrimination should be included in Career/Technical courses Foundations of Health Science (COS objective 10), Health Informatics (COS objective 5) and Intro to Biotechnology (COS objective 14). Exploration of genetic discrimination occurs in AP Biology courses as part of Enduring Understanding 3.A.

**Genetic Information Nondiscrimination Act (GINA)**

While most Americans are optimistic about the use of genetic information to improve health, many have been concerned that genetic information may be used by insurers to deny, limit or cancel health insurance and by employers to discriminate in the workplace. There has also been concern that some insurers may choose to not insure healthy individuals who are genetically pre-disposed to future disease onset: such people incur more health-related costs for the insurance company than individuals who are not pre-disposed. A similar fear is that some employers might only employ or retain individuals who are not pre-disposed to future disease onset, since healthy individuals are more productive. Consequently, for many years lawmakers, scientists and health advocacy groups have argued for federal legislation to prevent genetic discrimination.

In 2009, the Genetic Information Nondiscrimination Act (GINA) took effect across America, paving the way for people to take full advantage of the promise of personalized medicine without fear of discrimination. The act had been debated in Congress for 13 years and was signed into law in 2008. GINA protects Americans against discrimination based on their genetic information when it comes to health insurance and employment. The law, together with existing nondiscrimination provisions from other laws, prohibits health insurers or health plan administrators from requesting or requiring genetic information of an individual or the individual’s family members or using it for decisions regarding coverage, rates or preexisting conditions. The law also prohibits most employers from using genetic information for hiring, firing or promotion decisions.

GINA’s protection does not extend to life, disability or long-term care insurance. In addition, GINA does not prohibit a health insurer from determining eligibility or premium rates for an individual who is already exhibiting clinical symptoms of a disease or disorder.

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