Abstract. Decades of research have provided the scientific foundation for understanding the role of the environment in disease. For many pollutants, scientists know with some certainty that exposure to these pollutants, at sufficiently high concentrations; can cause a variety of health effects. For other pollutants, where scientific evidence is less conclusive, scientists can only establish an "association" between exposure and health problems. Some effects on health may be short-term and reversible, such as irritated eyes from smog. Other effects, such as emphysema, heart disease, and cancer are chronic or even fatal. Some effects may appear shortly after exposure. Others, such as cancer, may require a long lead time before the disease appears. In many cases, pollution likely is just one of several factors—including diet, exercise, alcohol consumption, and genetic make-up—that influence whether an exposed person will ever become sick. Further complicating the picture is the fact that several segments of the population may be at higher risk for damage or disease from environmental pollutants. Potentially sensitive groups include children; older Americans; people with existing health problems such as diabetes, respiratory disease, or heart disease; and persons with compromised immune systems, including those who have HIV/AIDS or are undergoing cancer chemotherapy. Many studies in people have demonstrated an association between environmental exposure and certain diseases or other health problems. Examples include radon and lung cancer; and cancer arsenic in several organs; lead and nervous system disorders; disease-causing bacteria such as E. coli O157: H7 (e.g., in contaminated meat and water) and gastrointestinal illness and death; and particulate matter and aggravation of heart and respiratory diseases. The effect of some pollutants is suggested to study their effects on the environment of Erbil City.