



FIG. 4.1. Mass X-ray screening for lung disease. Despite eugenicists' fears of radiation damage, Germany becomes the most X-rayed nation in the world. Here, members of the Hitler Youth line up to receive a chest X-ray. Note the swastika-like Koch & Sterzel logo; many companies (e.g., Siemens-Reiniger) adopted similar logos ("pseudoswastikas") after 1933. Source: Reiter and Breger, *Deutsches Gold*, p. 414.

Mobile X-ray units were also deployed at German factories to screen workers for silicosis, though health officials were often aware that X-ray photography was not usually sensitive enough to identify early signs of the disease.⁵²

Despite warnings by racial hygienists such as Fischer and Lenz, the number of people X-rayed increased dramatically under the Nazis. Proposals were put forward that the entire German population be screened for tuberculosis, and in some parts of the country that goal was apparently achieved.⁵³ In the spring and summer of 1939, for example, thanks to the efforts of the "SS X-ray battalion" (*Röntgenreihenbildnertruppe der SS*) headed by Holfelder, the entire adult population of Mecklenburg and Pomerania—everyone aged sixteen and over, roughly 650,000 people—received a chest X-ray. Special X-ray bulbs and photographic films were designed for

this gargantuan effort, and some of the most heavily used devices produced as many as 100,000 photos during the operation. (Organizers claimed that 600 people per hour could be X-rayed by the newly developed methods.) Physicians coordinating the operation thanked the "disciplined intervention of the party"—especially the Nazi welfare organization (NS-Volkswohlfahrt)—for instilling a "100 percent positive attitude in the population." Gauleiter Friedrich Hildebrandt's office assumed the bulk of the cost, though participants also contributed a nominal sum of fifty pfennigs. X-rayees were also given the opportunity to purchase, for an additional twenty pfennigs, an enlarged copy of their interior image.⁵⁴

The growing use of X-rays was often cited as an index of medical progress: a 1943 overview of medical research during the war boasted that Munich's university women's clinic had administered 50 percent more X-rays in 1942 than in 1937 (11,617 versus 7,528).⁵⁵ Mass screenings were implemented not just for TB, cancer, and silicosis but also for heart disease, stomach ailments, asbestosis, circulatory problems, and other diseases.⁵⁶ The process took on a quasi-military character during the war, when medical authorities sought to identify infirm workers who might infect other workers. The army itself became a major promoter of the practice, as special "X-ray troops" of the military medical command (under Albert Speer in at least one instance) X-rayed soldiers and civilians on the eastern front, looking for signs of lung or heart disease.⁵⁷ Mass X-ray screenings were also used to identify tubercular Poles, the original design being to exterminate them as "ballast lives" of no use to the Reich (that plan was apparently never carried out).⁵⁸

A particularly brutal use of X-rays emerged in Auschwitz, where scientists performed experiments to determine whether X-rays might be used to prevent the breeding of racial undesirables. Exploration of this possibility began in 1941, when plans were already underway to exterminate the Jews of eastern Europe. SS Oberführer Viktor Brack proposed the sterilization of Europe's Jewry in a letter to Himmler of June 23, 1942:

Among 10 millions of Jews in Europe there are, I guess, at least 2–3 millions of men and women who are fit enough to work. Considering the