1. Record Nr. UNINA9910819653403321 Autore Hoyt Kendall <1971-> Titolo Long shot: vaccines for national defense / / Kendall Hoyt Pubbl/distr/stampa Cambridge, Mass., : Harvard University Press, 2012 **ISBN** 0-674-06315-5 Edizione [1st ed.] Descrizione fisica 1 online resource (315 p.) Disciplina 614.4/7 Soggetti Vaccination - United States Vaccines - Government policy - United States Biological weapons - Safety measures - Government policy - United States Inglese Lingua di pubblicazione **Formato** Materiale a stampa Livello bibliografico Monografia Bibliographic Level Mode of Issuance: Monograph Note generali Includes bibliographical references and index. Nota di bibliografia Disease, security, and vaccines -- Historical patterns of vaccine Nota di contenuto innovation -- Vaccine development during World War II -- Wartime legacies -- The end of an era -- Biodefense in the 21st century -- The search for sustainable solutions. Sommario/riassunto At the turn of the twenty-first century, the United States contended with a state-run biological warfare program, bioterrorism, and a pandemic. Together, these threats spurred large-scale government demand for new vaccines, but few have materialized. A new anthrax vaccine has been a priority since the first Gulf War, but twenty years and a billion dollars later, the United States still does not have one. This failure is startling. Historically, the United States has excelled at responding to national health emergencies. World War II era programs developed ten new or improved vaccines, often in time to meet the objectives of particular military missions. Probing the history of vaccine development for factors that foster timely innovation, Kendall Hoyt discovered that vaccine innovation has been falling, not rising, since World War II. This finding is at odds with prevailing theories of market-

based innovation and suggests that a collection of nonmarket factors drove mid-century innovation. Ironically, many late-twentieth-century developments that have been celebrated as a boon for innovation-the birth of a biotechnology industry and the rise of specialization and

outsourcing-undercut the collaborative networks and research practices that drove successful vaccine projects in the past. Hoyt's timely investigation teaches important lessons for our efforts to rebuild twenty-first-century biodefense capabilities, especially when the financial payback for a particular vaccine is low, but the social returns are high.