

“‘Normal Exposure’ and Inoculation Syphilis: A PHS ‘Tuskegee’  
Doctor in Guatemala, 1946-48”

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**Advanced Synopsis**

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Perhaps the most infamous of American research studies is the “Tuskegee” Syphilis Study in which the U.S. Public Health Service (PHS) watched, but did not treat, hundreds of African American men with late stage syphilis for forty years (1932-1972).<sup>1</sup> Much of the folklore surrounding this study assumes that the doctors actually *infected* African American men in Macon County, Alabama with syphilis by inoculating them with the disease. Historians of the Study, the author included, have spent years now explaining why this was not true and why this myth persists. Part of the explanation is that the spirochete-shaped bacteria that cause syphilis cannot be cultured and grown in a laboratory, easily put into a syringe, or transferred from the blood of one infected person to another.

The inoculation story that is part of the Tuskegee myths did, however, go on elsewhere. In 1946-48, Dr. John C. Cutler, a PHS physician who would later be part of the Syphilis Study in Alabama in the 1960s and continue to defend it two decades after it ended in the 1990s, was running a syphilis inoculation project in Guatemala, co-sponsored by the PHS, the National Institutes of Health, the Pan American Health Sanitary Bureau (now the Pan American Health Organization), and the Guatemalan government.

It was the early days of penicillin and the PHS was deeply interested in whether penicillin could be used to prevent, not just cure, early syphilis infection, whether better blood tests for the disease could be established, what dosages of penicillin actually

cured infection, and to understand the process of re-infection after cures. Many scientific questions remained to be answered.

One of these had to do with if, in addition to condoms, there was a need for a better chemical prophylaxis against the disease that a man could apply directly to his penis right after possible exposure, or whether just relying upon penicillin as cure from a health professional after the syphilis was diagnosed would be sufficient.<sup>2</sup> Syphilologists were well aware of the problems with many of the blood tests done to determine syphilis, the inability to translate animal research studies (primarily done with rabbits and sometimes with chimpanzees) to humans, the complicated chronic nature of the disease, and the wiliness of the syphilitic spirochete that had fascinated them for decades.

In 1944 the PHS had done experiments on prophylaxis in gonorrhea at the Terre Haute Federal Penitentiary in the United States. In this prison, the “volunteers” were deliberately injected with gonorrhea (which can be cultured), but the PHS had found it difficult to get the men to exhibit infection and the study was abandoned.<sup>3</sup> To continue that work, and to extend it to syphilis, the PHS looked south beyond American borders.

Cutler and the other physicians chose men in the Guatemala National Penitentiary, then in an army barracks, and men and women in the National Mental Health Hospital for a total of 696 subjects. Permissions were gained from the authorities but not individuals, not an uncommon practice at the time, and supplies were offered to the institutions in exchange for access. The doctors used prostitutes with the disease to pass it to the prisoners (since sexual visits were allowed by law in Guatemalan prisons) and then did direct inoculations made from syphilis bacteria poured onto the men’s penises or on forearms and faces that were slightly abraded when the “normal exposure” produced little disease, or in a few cases through spinal punctures. Unlike in Alabama, the subjects were then given penicillin after they contracted the illness. However, whether everyone was then cured is not clear and not everyone received what was even then considered adequate treatment.

Yet the PHS was aware then that this was a study that would raise ethical questions. For as Surgeon General Thomas Parran made clear “‘You know, we couldn’t do such an experiment in this country.”<sup>4</sup> Deception was the key here as it had been in Tuskegee. Much of this was kept hushed even from some of the Guatemalan officials and information about the project only circulated in selected syphilology circles. When it proved difficult to transfer the disease

and other priorities at home seemed more important, Cutler was told to pack up and come back to the States.

Cutler would then go on to work with other PHS physicians, including Sidney Olansky who also participated in the Syphilis Study in Alabama, to use inoculation (on arms not penises) on “human volunteers” at the infamous Sing Sing Prison in Ossining, New York, in 1953-56 where the study was explained to the prisoners. Both studies were focused on the immunological responses to the disease and to providing up to date science in the face of penicillin wide spread usage.

This article compares the rumors about Tuskegee with what happened in Guatemala. It explains why they were different: the men and women in Guatemala were infected and treated, even if not always successfully.

The studies in Guatemala demonstrate the connections between research done in developing countries and the United States, and the flow of information back and forth. It shows definitively that the PHS did not give the men in Alabama the disease. And it reminds us that the scientific enterprise must always be watched over, even when the intentions are good and the “best men” do it.

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<sup>1</sup> Susan M. Reverby, *Examining Tuskegee: The Infamous Syphilis Study and its Legacy* (Chapel Hill: University of North Carolina Press, 2009); Susan M. Reverby, ed. *Tuskegee's Truths: Rethinking the Tuskegee Syphilis Study* (Chapel Hill: University of North Carolina Press, 2000).

<sup>2</sup> John C. Cutler, “Current Concepts of Prophylaxis,” *Bulletin of the New York Academy of Medicine* 52 (October 1976): 866-896. For the counter view to the position on prophylaxis taken by Cutler and the PHS, see Joseph Earle Moore, *The Modern Treatment of Syphilis* (Springfield: Charles C. Thomas, 2<sup>nd</sup> edition, 1943), pp. 564-567. On tensions between the PHS doctors and Moore see John F. Mahoney to John C. Cutler, April 19, 1948, Box 1, Folder 13, John C. Cutler Papers, University Archives, University of Pittsburgh, Pittsburgh, PA, hereafter referred to as the Cutler Papers.

<sup>3</sup>Inoculum was both cultured and taken from the penis of one infected man and put into the penis of another. See John F. Mahoney et. al., “Experimental Gonococcal Urethritis in Human Volunteers,” *American Journal of Syphilis, Gonorrhea and Venereal Diseases* 30 (January 1946): 1-39. For more on the policy debate over the Terre Haute research, see Harry M. Marks, *The Progress of Experiment* (New York: Cambridge University Press, 1997), pp. 100-105. On a revived interest in prison research see Institute of Medicine, *Ethical Considerations for Research Involving Prisoners* (Washington, D.C.: Institute of Medicine, 2006);

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Barron H. Lerner, "Subjects or Objects? Prisoners and Human Experimentation," *New England Journal of Medicine* 356 (May 3, 2007): 1806-07.

<sup>4</sup> G. Robert Coatney to Cutler, February 17, 1947, Box 1, Folder 17, Cutler Papers.