The Puerto Rico Pill Trials:
The Dark Chapter in the Heroic Struggle to Break Reproductive Barriers

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I. Introduction

Used by over 10 million women in the United States\textsuperscript{1}, “the pill” is considered one of the most important scientific breakthroughs in history. The Puerto Rico pill trials is an often overlooked but essential chapter in the story of the development of oral contraception. In the exuberant rush to conduct large scale human trials on the newly developed birth control pill, researchers and activists tested the drug on desperately poor and uneducated women in Puerto Rico. The tests were conducted without informed consent or discussion of potential harm.

The development of the birth control pill, approved by the FDA in May 1960, broke barriers of race, class, religion, sexual mores, and scientific discovery. The Puerto Rico pill trials are a complex part of this otherwise triumphant story. There is irony in the realization that in order to bring reproductive freedom to millions, a group of marginalized women were exploited as nonconsenting experimental subjects. Their names may not be known to us, but their story of bravery should be. Even as the pill was breaking barriers, the Puerto Rico pill trials were reinforcing barriers: between those with power and those without, between the educated and the uneducated, between the colonizer and the colonized, and between the privileged and the underprivileged.

II. Background: The Ideas and Struggles

The story begins with the barrier-breaking ideas of activist, writer, and nurse Margaret Sanger, who held radical views about female sexual liberation and motherhood. In 1916, she opened the first birth control clinic, with others following around the country, popularizing the

term “birth control” and launching the movement for contraceptive rights in the United States. She believed that “no woman can call herself free who does not own and control her body. No woman can call herself free until she can choose consciously whether she will or will not be a mother.”

Sanger’s beliefs encountered harsh opposition. The Comstock Laws, nicknamed “chastity” laws, were passed by Congress in 1873 and criminalized the possession and distribution of contraceptive information and devices. The laws were backed by the Roman Catholic Church, which “stood firm on their principles that artificial contraceptives were sinful.”

In addition to religious and societal opposition, problems existed in the limited birth control options available: condoms, which were disliked by men; cervical caps, which were disliked by women. Many women relied on abortion or sterilization, which were risky and, in many cases, illegal procedures.

Sanger knew that an oral contraceptive, one that could be administered by women who were seeking to control their own fertility, was a vital step in the realization of her goals for sexual freedom. She spent almost forty years on the quest for such a ‘magic pill,’ but she was told by every scientist she encountered that it was an almost impossible dream. That is, until she met Gregory Pincus.

III. Background: The Science

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In 1952, Gregory Pincus was a brilliant, innovative biologist and researcher who had been studying human reproduction and hormones. Forced out of Harvard for his barrier-breaking and controversial experiments with *in vitro* fertilization in rabbits, Pincus had been labeled “Dr. Frankenstein” for his radical views on reproductive technology.\(^5\) Despite his preliminary research showing that ten milligrams of progesterone suppressed ovulation in rabbits, Pincus was unwilling to begin human trials until he met Dr. John Rock, a gynecologist who safely treated infertile women with synthetic progesterone. With this evidence, Pincus was ready to design and test a synthetic hormone for contraception. He told Sanger that if she could provide the funding, he could provide the pill. Pincus “wanted [the world] to think of this as their Manhattan Project.”\(^6\)

**IV. The Perfect Location**

Pincus needed a place to conduct large-scale human testing of the pill he had developed. The testing location had a few big musts: women desperate enough to limit their family size, “who wouldn’t ask many questions or complain too much, a place where birth control was legal and widely accepted.”\(^7\) Pincus was certain that, because of anti-abortion laws and the difficulty of recruiting subjects, these needs could not be met on mainland US. They needed to look elsewhere. In a letter to Katherine McCormick, a sponsor of the project, Pincus wrote “Mrs. Pincus and I recently returned from a trip to Puerto Rico … I came to the conclusion that experiments could be done in Puerto Rico on a relatively large scale.”\(^8\)

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5 See Appendix B.


8 Gregory Pincus to Katherine Dexter McCormick, March 5, 1954, Gregory Pincus Papers, LOC.
Puerto Rico presented itself as the perfect place to conduct clinical trials for a number of reasons. Puerto Rico, a desperately poor, predominantly Catholic island, had already broken barriers with regard to birth control access. In 1938, in response to a population crisis, Puerto Rico had abolished its anti-birth control laws. Because of the population explosion and poverty crisis on the island, government officials supported birth control and had made it possible for Puerto Rico to open over “67 clinics dispensing existing methods of birth control and a large group of women used their services.”

Dr. Edris Rice-Wray, the head of Puerto Rico’s Family Planning Association at the time, quickly became a willing and eager partner of Pincus’s work. She had long before identified the population and contraception problem in Puerto Rico but saw that Puerto Ricans were “doing nothing about it.” Like Margaret Sanger, Rice-Wray held progressive ideas about family planning as a means to lift people out of poverty. She was quoted saying that when Puerto Rican women could control their reproductive systems, “much of the misery and desperation of our poorer classes will be eliminated … then employment opportunities, schooling, housing, medical and welfare services will have a chance of meeting the needs of our people.”

Sanger and others on the project were skeptical that working-class Puerto Rican women could keep up with the rigorous trial regimen or be consistent enough to provide reliable data,

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9 See Appendix C.
11 “San Juan Talks Open on Birth Control; Theme Held Key to Caribbean Problems.” *The New York Times*, May 1955, p.8. ; See Appendix A.
12 Edris Rice-Wray to William Vogt, December 10, 1953, Gregory Pincus Papers, LOC.
but these concerns were overshadowed by the urgent need for an oral contraceptive. Pincus moved ahead with his plan.  

V. The Perfect Subjects

In April of 1956, the initial trials got off the ground. Rice-Wray knew where to find women desperate for more effective birth control: Rio Piedras, a housing project located in a slum neighborhood known as El Fanguito (literally, the mudhole) where young women were fighting to escape poverty. The researchers began recruiting women, and the trials were quickly filled with test subjects, eager to get their hands on the revolutionary pill they were told would prevent pregnancy. Most of the women were in their teens and early twenties.

The responsibility to control reproduction and family size fell onto these poor women, some of whom claimed that “the fear of pregnancy had crushed their desire for sex.” The pill was a welcome alternative to tools such as sterilization or abortion, which had been the only reliable way these women knew to prevent pregnancy. Puerto Rico offered Pincus a large group of women motivated to limit their family size, who would prove that if poor and uneducated women could follow the pill regimen, women from around the world could as well.

VI. The Dark Side: Barriers of Gender, Class and Race Reinforced

The pill, branded Enovid at the time, was given at a high dose to the test subjects, ten milligrams of progesterone to be exact. The idea was, the higher the dose, the more certainty that pregnancy would not occur during the trials. In keeping with the accepted ethical standards of

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16 Ibid. p. 166.
that era, no informed consent was sought, no warning about side effects was given and the women were not told that the pills they were taking were experimental. The young Puerto Rican subjects were told that “this was medicine that would keep them from having children they couldn’t support,”\(^1\) recalls Delia Mestre, a participant in the trials. They were not told that this pill had never been tested before. Mestre states that she and the other women “all jumped on it quickly and didn’t look back.”\(^2\)

The first year of testing hit some bumps: several women dropped out of the trials for reasons including pressure from their husbands, inability to properly administer the pill, and other personal reasons. By the end of the first year, only twenty of the initial 100 subjects were still in the trials, but this was not a problem, as there was no shortage of willing test subjects. By the end of 1956, 221 women had participated in the trials. After a year of testing, Dr. Rice-Wray was able to report good news to Pincus: when taken properly, the pill appeared to be 100% effective.

However, good news was not all she had to deliver. She also informed Pincus and his team that 17% of the women who participated in the study were experiencing unpleasant side-effects of some sort, including nausea, dizziness, headaches, stomach pain, and vomiting, and 25 women had dropped out solely because of complaints of side effects\(^3\). The conclusion was reached that the ten milligram dose of Enovid caused “too many side reactions to be


\(^2\) Ibid.

generally acceptable.” This analysis of results, however, was quickly dismissed by Pincus and his team. 

Desperate for FDA approval of Enovid and fearful that reports of side effects such as this would certainly not help them get there, Pincus quickly stated that these women’s symptoms were psychosomatic (made up in their heads) or were too minor to be a concern. With his response, Pincus demonstrated that despite his iconoclastic bravery as a scientist and his commitment to the cause of birth control, he was willing to reinforce a barrier that women have faced and still do: having their voices and their symptoms silenced and dismissed as “hysteria.”

Barriers of class and race were also reinforced by the Puerto Rico pill trials. Initially, Pincus tried to conduct trials on hospitalized white women in Boston. However, these trials were quickly terminated due to reports of negative side effects. This same care was not taken when the women of Puerto Rico complained, and doctors ignored their symptoms. Because of the desperation to have an oral contraceptive developed and on the market, many shortcuts were taken. Today, the birth control pill that is accepted contains ⅓ of the dose of estrogen and progesterone that was given to the women in these trials. High doses were probably the cause of many side effects and negative results of the trials. Likely, with even months of more research and development, scientists could have addressed some of the issues that they left up to chance when they began testing on Puerto Rican women. Even more egregious, during early trials in Puerto Rico, three previously healthy women passed away, but no investigation was ever done

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into their deaths.\textsuperscript{23} No autopsies were conducted, and even today it remains unclear whether or not their deaths were caused by the pill. Pincus was so confident in the safety of the pill and so eager for FDA approval that he took no action to identify the root causes of the side effects and deaths.

Why did the women so readily comply with the trials? In addition to the women’s desperation for a solution to repeated pregnancies, assumptions about race and class also played a role here. Historian Jonathan Eig writes: “They [the women] knew that this was an American drug and that if it was coming from America, it must be something good.”\textsuperscript{24} Wittingly or unwittingly, the scientists exploited this power, silencing questions or doubts the women might have had. In this way, they took advantage of and reinforced barriers of race and class. Some of the women who participated in the trials are still alive today. One woman describes a kind of retrospective trauma. Looking back, she understands that her power was taken away. During an interview, her eyes filled with tears as she asked “Why didn’t anyone let us make some decisions for ourselves? I have difficulty explaining that time to my own grown children. I have very mixed feelings about the entire thing.”\textsuperscript{25} In the words of OBGYN Pamela Verma Liao, “despite the substantial positive effect of the pill, its history is marked by a lack of consent, a lack of full disclosure, a lack of true informed choice, and a lack of clinically relevant research regarding


risk.” Unknowingly subjected to potentially dangerous side effects and other complications, these women were “the unwitting pioneers of the modern sexual revolution.”

It is not just the women directly involved in this trial who feel betrayed by the scientific community. Women in the Latinx community born after the trials have expressed feelings of conflict and betrayal upon learning about this dark side of the pill’s history. Jennifer Mota, a writer for *People en Español*, writes about this feeling in an article:

> As a woman of color, it stung to find out this signature medical achievement came at the expense of unethical testing on already marginalized women… it’s important to remember that reproductive rights, sexual freedom, and women liberation’s *[sic]*, in general, have before and still today come at a price. The women of Humacao risked their lives unknowingly in order for us to have the privilege to indulge in our pleasures and choices.

Mota highlights an ethical dilemma surrounding the use of scientific breakthroughs that have come about because of exploitation, experimentation without consent, or harm to innocent people. One can acknowledge that biomedical ethical standards of the time were different than they are today. Nevertheless, Mota’s words are emblematic of the complicated legacy of the Puerto Rico pill trials.

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VII. Conclusion

Just four short years after the trials began in Puerto Rico, the FDA officially announced that Enovid, the first oral contraceptive, had been approved for sale in the United States. Pincus, Sanger, and their team had done the seemingly impossible; they had given women a safe, reversible, and easily administered contraceptive that allowed them to control their fertility, without needing to depend on their husbands or anyone but themselves. The pill was branded “the hottest new product to come out of the drug industry’s research labs in many years.”

The story of the Puerto Rico pill trials is itself a barrier to our wholehearted admiration of the scientists and activists who made possible the remarkable gift of reproductive freedom. It raises ethical questions about informed consent and the exploitation of poor and minority people.

The Puerto Rico pill trials are emblematic of how extraordinary scientific advances often come at the expense of the powerless and voiceless. When Margaret Sanger and Gregory Pincus, two barrier-breaking visionaries who gave so many women control over their reproductive lives, are celebrated, it must be remembered that exploitation lies at the heart of their success and that their work reinforced barriers of race, class, and gender. It is therefore necessary to celebrate the nameless women whose bodies made it possible. Although they did not know it about themselves at the time, these women were pioneers, ground breakers, explorers. They are the unsung heroes of this story. Though driven by poverty and desperation, they dared to dream of a better future for themselves.

29 See Appendix D.
This picture, taken in 1960, depicts Puerto Rican women at a local clinic being taught about different birth control methods. The poster depicted in the photo includes information about “Enovid”, the newly FDA approved oral contraceptive that had been tested in the same place it was now being sold: slums of San Juan, Puerto Rico.

*The teaching of birth control methods in Puerto Rico, 1960. (Credit: Hank Walker/The LIFE Picture Collection/Getty Images)*
Dr. Gregory Goodwin Pincus was seen as somewhat of a “Dr. Frankenstein” in the field of biology and reproduction, due to his work on *in vitro* fertilization in rabbits. However, this also meant that he was very familiar with reproductive hormones and how they work within the body, making him the perfect scientist to develop a birth control pill.

*Dr. Gregory Pincus at Harvard University in 1932. (Bettmann/Getty Images)*
In this photo, a large, low class family of a sugar worker is depicted. These adults lived on very little, and had many mouths to feed, some of which they did not intend to be born in the first place. Families such as this are why Pincus and Rice-Wray did not hesitate to test in Puerto Rico.

Photograph of a Puerto Rican sugar worker’s family
Pictured here is a bottle of Enovid, the first FDA-approved, marketed oral contraceptive. After years of testing on non-consenting women in Puerto Rico and elsewhere, the pill was marketed to white women as the saving grace of their marriage.

_A bottle of Enovid tabs from the early 1960s. (Credit: Science Museum/SSPL/Getty Images)_
BIBLIOGRAPHY

Primary Sources:

Edris Rice-Wray to William Vogt, December 10, 1953, Gregory Pincus Papers, LOC

This letter, a part of the Gregory Pincus Papers collection at the Library of Congress, gives insight into why Puerto Rico would be so willing to open their doors to a clinical trial, from the medical perspective. Here, Dr. Edris Rice-Wray, the head of the Family Planning Association in Puerto Rico before and during the trials, writes about the Puerto Rican need to address the poverty and population problems they are facing. She was one of many professionals in many different fields who identified this problem, which is what made it so easy for Pincus and other scientists to penetrate the Island.

Gregory Pincus to Katherine Dexter McCormick, March 5, 1954, Gregory Pincus Papers, LOC.

This letter, a second one taken from the Gregory Pincus Papers collection at the Library of Congress, shows correspondence between Pincus and another person working on and dedicated to the project. Here is where the initial sparks of interest in Puerto Rico as a location for the trials were ignited. After having returned from a trip there, Pincus felt it vital that he right away let members of his team know about the gem he had found to conduct his trials. This letter reveals that Pincus needed Puerto Rico just as much as Puerto Rico needed him.


This science journal was written 13 short years after the pill was FDA approved, and it expresses the positives and the negatives that Enovid has brought to women in American and across the
globe. The article, from a scientific perspective, concludes that while this oral contraceptive is one of the most important breakthroughs of the time, that there are still questions unanswered. Side effects had been reported following use, but no follow up was done, and it seems as though the FDA approved of this new medication very quickly.

Margaret Sanger, “A Parents’ Problem or Woman’s?” March 1919. Publish article.
Source: Birth Control Review, Mar. 1919, 6-7

This article was written by Margaret Sanger in her prime, when she was fighting for female sexual liberation along suffragists fighting for the vote. She believed that women would never be truly free or truly have control of themselves until they had control over their reproduction. This idea was expressed and repeated in her article, which revealed the motives behind the birth of this project, and also revealed why the trials might have been so hurried along.

Quintanilla, Ray. “Puerto Ricans Recall Being Guinea Pigs for 'Magic Pill'.”
Chicagotribune.com, 27 Aug. 2018,

The source, an online article telling of an interview with a woman who was a test subject in the Puerto Rico Pill Trials, is probably the most important one used for this paper. It is from this source that we hear the story from the side of the oppressed, rather than the side of the oppressors. Getting to read and cite a quote from someone who was directly involved in the pill trials provides priceless information to the paper and the topic.

“San Juan Talks Open on Birth Control; Theme Held Key to Caribbean Problems.” The New York Times, May 1955, p.8
This New York Times Article, written just a year before the Puerto Rico Pill Trials officially began, reports on discussions of need for population control in the form of oral contraceptives in Puerto Rico. Many different professionals had come together to discuss this issue, and to figure out how they could do even more than they had been thus far. Puerto Rico, a predominantly Catholic country, had shown great progressive thinking when they repealed their anti-abortion laws, and had government funded clinics all across the island to provide women with reproductive services. Puerto Rico’s open-mindedness on this issue made all the difference when it came to choosing where to conduct the trials.


This article, which looks back on the development of the pill and its use over the 20 years following its creation, provides information about the changes that were made to the pill since its initial testing, which reveal the issues with it at the time that it was given to poor Puerto Rican women unknowingly.

**Secondary Sources:**


This website, a History.com article, provides an overview of the Puerto Rico Pill trials and gives background information about the topic that could be further expanded on with more in depth research. Articles such as this one are what laid down the basics so that primary sources and more detail could be added to enhance the paper and provide more information.

This article also provides a broad look at the Puerto Rico Pill Trials, but even the most general of information must be shared on platforms, as this story is unknown to so many. Like the previous source, this article laid the foundation information which the paper expanded upon.


While this source, a book written by Historian Jonathan Eig, provides very little information about the actual Puerto Rico Pill trials, it gives an in-depth history of the pill and the minds behind it, and is the source that inspired the topic of this essay. For this essay, the book, which was filled with a lot of rich information, mainly provided information about the brains behind the operation, especially Gregory Pincus and Edris Rice-Wray. The book reveals their motives for doing what they did before, during, and after the trials, and makes clear why many of the events that unfolded were able to take place.


This report was conducted in 2012 by the National Center for Health Sciences, and it provides this essay with specific data about the number of women that rely on modern oral contraceptives. This information is vital in understanding the ethical dilemma that these trials bring up. Clearly, the medical advancement that is oral contraception has changed the lives of millions of modern-day women, but the cost of these advancements is known by more and more people, and questions of moral choices are starting to arise.

This article, like others used for this essay, provides general information about the darker side of the development of the pill, but more than that, it told the story from the perspective of a Latinx woman, who feels conflicted about the controversial history of the pill. The exploitation of this already marginalized group did not only affect the women involved, but also those with similar identities to come. This perspective is important when noting the repercussions of the trials.


This source is an interview between an NPR reporter and Historian Jonathan Eig, who authored the book “The Birth of The Pill”, seen earlier in this bibliography. It expands on the information in his book, but also provides more in depth answers to questions of the Puerto Rico Pill Trial specifically. Eig discusses the Puerto Rican women’s desperation and therefore willingness to take a pill they were not informed about, as well as the motives of Pincus and the other’s involved. The information provided by Eig added to this paper by analyzing not only what happened, but why it happened and what the consequences were when it came to the choices made surrounding the Pill and its trials.


This source discussed opposition to the birth control movement, primarily by organized religion. It provided historical context, as well as historical significance of the Puerto Rico Pill Trials and of the development of oral contraception as a whole. It discussed various legislation that had been passed against birth control, and how the work of Sanger and other activists and scientists helped to create the counter argument to these cases.