BERNADETTE DWYER (RADIO HAVANA): The Pugwash Conference on Biotechnology and Medical Research in Cuba started today in Havana. It will run for three days. The conference will focus on aspects of public health, and has invited participants from the United States, England, Cuba, Jamaica and Canada -- among other countries. So, what is Pugwash? In 1957, a small group of scientists formed the Pugwash Movement -- named after the small village in Nova Scotia, Canada where they held their first meeting. After that first meeting prevention of nuclear war and disarmament were their primary objectives. Professor George Rathjens, Secretary General of Pugwash, tells us more.

GEORGE RATHJENS: Well, Pugwash began at the time when hydrogen bombs were invented -- or we knew that they were possible. A number of scientists from around the world -- perhaps 20 -- all very eminent ones, decided that this was so serious that we had to change the way the world was thinking about war and peace and the use of military force. It has grown to the point where now there are -- there are many thousands of scientists and other people involved. We publish things, we try to influence public policy by talking to people in governments, and by sending them papers. And that's sort of the story.

[Musical interlude]

DWYER: I asked Professor Rathjens about Pugwash's public profile.

RATHJENS: We have had over the years, I think -- probably more expertise on nuclear weapons effects and the problems of producing them, than any other non-government organization in the world. The founder of the organization really is Sir Joseph Rotblat -- we incidentally shared the Nobel Peace Prize with him in 1995. He's an expert on ionizing radiation. And, there are many other people involved who are also experts. And we are concerned about the production of nuclear weapons and the adverse effects on the environment. We've not done very much in the recent years on that directly, but we continue to be very deeply involved in the nuclear weapons business. We have an important meeting coming up in India this spring on the whole question of what nuclear weapons are good for, if anything. Nuclear weapons issues are the issues that have commanded the greatest amount of our attention over the years, and for which we are best known.

[musical interlude]

DWYER: One of the characteristics of Pugwash is to invite participants to their conferences in a personal capacity, and not as representatives of any institution, company or governments. The participants are scientists and other professionals who cover the spectrum of the
scientific community. Starting with a group of scientists, and later joined by some military analysts, Pugwash today has participants from diverse disciplines such as economics, history, law, political science, psychology, and sociology. This conference with a focus on public health includes physicians from both developed and underdeveloped countries. The workshops are covering such diverse topics as genetic and dietetic factors in breast and cervical cancer; the effects of the US embargo on new medical treatments; and medical cooperation and the ethical and social aspects of biotechnology and medical research. The Cuban Health System is recognized world-wide as being the best in Latin America -- and, in fact, surpasses many other health systems in the world. Because of this reputation, two years ago in 1998, Pugwash had its first-ever workshop in Cuba on issues of public health in developing countries. Impressed by what they saw, Pugwash decided to hold this year's conference on public health in Havana. Dr. Jeffrey Boutwell explains:

JEFFREY BOUTWELL: Two years ago, in 1998, Pugwash held its first-ever workshop in Cuba on issues of public health in developing countries. Given the great strides that Cuba has made in eradicating many public health diseases and lowering its infant mortality rate -- and, generally, providing a very good level of public health care to its citizens -- it made perfect sense for Pugwash to bring an international group of health care experts together to Cuba to talk about the Cuban system of public health delivery. Wanting to follow up on that, we thought we would specialize a bit more this time and look at particular diseases, such as sickle cell anemia, meningitis, and cancer, and bring together a group of international physicians -- many from the U.S. -- but also from Jamaica, the United Kingdom, Zambia and other parts of the world -- so that these physicians and health care experts could share the latest techniques in research and the development of vaccines for these particular diseases -- so that the international experts could learn from their Cuban colleagues and vice versa. So we have a group of about 40 people, who, over the next three days will be essentially exchanging information on new vaccines and treatments for diseases that are commonly found all around the world.

[musical interlude]

DWYER: I asked Dr. Boutwell about the Pugwash network. And how they identified suitable participants for their conference here in Cuba?

BOUTWELL: The traditional way that Pugwash works is that we have about 40 national groups around the world, and international offices in Rome, London, Geneva and in Cambridge, Mass. We rely heavily on the national groups to identify the best people to attend our workshops, but the international office is also responsible for identifying the best international participants. For Cuba, we relied on the Cuban Pugwash group to identify those public health officials from the various ministries and from the various centers, like the Center for Immunology and Biotechnology. One of the great things about the Pugwash network of scientists around the world is that we have colleagues in many different countries, who have contacts in other countries such as Cuba. One particular example is a Spanish colleague who has a colleague in Santiago de Cuba, Carlos Mirabal, who is doing new work on sickle cell anemia. Our colleague in Spain tells us about our colleague in Santiago de Cuba, and we put him in touch with a physician from Boston, Kenneth Bridges from Brigham and Women's Hospital, who runs a center in Boston on sickle cell anemia. It's this kind of networking that brings new people into Pugwash.

[musical interlude]
DWYER: This important conference which started today will continue until Saturday, the 17th of this month. We will bring you further reports on some of the topics covered by papers given by the international experts who are attending the Pugwash Conference here at the Hotel Nacionale in Havana. I am Bonnie Dwyer for Radio Havana Cuba.

Part Two - 19 February 2001

[musical interlude]

DWYER: An important conference has just finished in Havana - the Pugwash Conference on "Medical Research: Strengthening International Cooperation." Pugwash is a non-governmental organization based in Europe and the United States, with Pugwash chapters all over the world. They regularly hold conferences on news and views about developments in the world of science and its various disciplines. Dr. Jeffrey Boutwell, participant at the Havana Conference, tells us a little about the history of Pugwash, and reports on some of the workshop discussions and outcomes of the Conference. First a little about Pugwash.

BOUTWELL: Pugwash was founded at the height of the Cold War to bring American and Soviet nuclear physicists together to look at the threat posed by nuclear weapons. In the 45 years since then, Pugwash has worked in such places as the Middle East to bring Israelis and Palestinians together; Pugwash played a somewhat minor role, but a role nonetheless in trying to facilitate talks between the US government and the North Vietnamese during the Vietnam War in that late 1960's. So the objective of the Pugwash Conferences is to bring people together to try and transcend political differences and institutional obstacles that prevent scientists and policy specialists from working together to find common solutions for the problems that affect all of us.

[musical interlude]

DWYER: The issues discussed at the conference were many and varied. Dr. Boutwell tells us about some of them.

BOUTWELL: Thus far the conference has focused on getting medical professionals and researchers from countries outside of Cuba together with their Cuban colleagues to go over the latest research and treatments and vaccines for such diseases as sickle cell anemia, cancer, meningitis B, hepatitis B. As an example, we have two physicians and researchers from Cuba, Dr. Carlos Mirabal and Dr. Eva Sbach, specialists in sickle cell anemia, presenting their research. And we have Dr. Kenneth Bridges from Brigham & Womens' Hospital and Harvard Medical School giving presentations on the work he is doing regarding current vaccines and new treatments for sickle cell anemia. There were interesting interchanges between Dr. Bridges, Dr. Mirabal, and Dr. Sbach on the possibilities, if the embargo didn't exist, for physicians in Boston to collaborate with their Cuban colleagues in running clinical test trials of new treatments that could be of benefit for sickle cell patients -- both in Cuba and the United States. Likewise, we had presentations on cancer from a researcher at the National Cancer Institute of the National Institutes of Health in Washington, as well as on hepatitis B and meningitis.

[musical interlude]
**BOUTWELL:** On the second day of the workshop, participants discussed various types of international networking among health professionals and medical researchers. We had presentations on the Cuba Infomed program that links the Cuban public health system with community health workers, researchers and patients throughout Cuba. Infomed is certainly one of the most advanced computer networking systems of any country that I'm aware of -- in terms of having a national network. Yet it is also decentralized both to two or three particular regions of Cuba, and even further to, I think, ten to fourteen more local nodes -- where people can access the latest information about epidemics that may be of concern to the Cuban people or vaccines that are available. Infomed essentially ties together the whole public health network of Cuba. In addition, we had Dr. Nils Daulaire of Vermont and Washington, who is President of the Global Health Council, a US NGO that is dedicated to improving public health all over the world. The Global Health Council is somewhat unique in that its members range from some of the giant pharmaceutical companies like Merck and SmithKline Beecham to non-governmental organizations working directly in the field, especially in developing countries. As we know, the interests of the major drug companies and health care professionals aren't always identical when it comes to the commercialization of products and bringing them to market. But his organization is a good example of seeking to work together to both develop new strategies and disseminate information as widely as possible. So, the Pugwash workshop really had two primary focuses. One, to allow medical researchers to share information on new laboratory research and clinical trials. But also, to get these physicians plugged into the international health networks, like Infomed in Cuba and the Global Health Council internationally, so their expertise can be better brought to bear where it's most needed for the health of the people.

[musical interlude]

**DWYER:** It is well known that Cuba has developed a vaccine against meningitis B, which has not been available to date in the United States. Dr. Boutwell went on to give us an idea of the importance of this vaccine.

**BOUTWELL:** We had a very interesting presentation on the development in Cuba of a new vaccine for meningitis B that the Cubans are now working on with the pharmaceutical company, SmithKline Beecham, to run clinical test trials and hopefully bring this vaccine to market internationally. It was noted that SmithKline Beecham has received the approval of the US Treasury Department to allow this vaccine to be available in the US for Americans, should it come to market. The vaccine is still in clinical trials, it's not been totally proven yet, but the hope is there that this will be a future vaccine for this disease.

[musical interlude]

**DWYER:** You are listening to Dr. Jeffrey Boutwell, participant of the Pugwash Conference on International Cooperation in the Area of Biotechnology and Medical Research, which was held here last weekend in Havana. Tomorrow, we will have Part II of this interview, in which Dr. Boutwell will talk about the effects of the US embargo both on Cuba and on the US itself. I am Bonnie Dwyer, in Havana.

[musical interlude]

**Part Three - 20 February 2001**
DWYER: An important conference has just finished in Havana, the Pugwash Conference on "Medical Research, Strengthening International Cooperation." One of the participants was Dr. Jeffrey Boutwell of the American Academy of Arts and Sciences in Cambridge, Mass. One of the workshop sessions focused on the United States embargo against Cuba and its effects on medical cooperation. Dr. Boutwell outlines some of the grave disadvantages, but also some of the unintended benefits of the embargo for Cuba's development.

BOUTWELL: The discussion about the embargo was particularly interesting to me as a relative newcomer to Cuba who is learning more about the Cuban experience. The embargo has been a fact of life for Cuba for 40 years. It's not something new. And it's something that the Cuban people, and the Cuban system, has had to adapt to. As an American citizen, I certainly have been aware of the consequences of the embargo for the Cuban people in denying them easy access to foods and medicines, and to overall trade with the United States. The United States is a firm believer in free trade, and has pushed that for decades. Yet in this particular case, unfortunately, the United States has laws in effect that prevent free trade in both goods and services, but also in human knowledge, between the two countries. So we're certainly aware of the effects that the embargo has had on Cuba in terms of making life more difficult for the Cubans, of denying them access to one of the most important sources of goods and services and human knowledge in the world, the United States. For me, two things that were most interesting beyond that were: 1) a number of our Cuban colleagues made the point that the embargo has had unintended consequences, and actually, beneficial consequences, in making Cuba more self-reliant. Cuba has had to develop some of its own vaccines that were ordinarily only available in the United States. Also, Cuba has had to build up a medical and biotechnology sector, literally from scratch, beginning in the early 1980's, so that the country could become more self-sufficient when it came to the expertise, the research, the development and most importantly, the bringing to market of vaccines for cancer and various other diseases that were made more difficult because of the embargo. I think a number of our Cuban colleagues were rightfully proud of the fact that they have become more self-reliant because of the embargo.

[musical interlude]

DWYER: Dr. Boutwell went on to point out that, in fact, the United States embargo against Cuba also adversely affects the citizens of the United States itself. In particular, there is a concern that many Americans who suffer from one disease or another will not be able to readily avail themselves of vaccines because of the embargo.

BOUTWELL: The other interesting ramification of the embargo, which I think is not very well understood in the United States, is that the embargo has had unintended consequences as well for Americans. Cuba now has a well-developed biotech and medical research community that develops vaccines that could benefit Americans. In the example I gave before, of the meningitis B vaccine being tested by Cuba and SmithKline Beecham, it looks as if this product will be available for Americans, as the US Treasury Department has granted an exception in this particular case. But it remains to be seen whether similar exceptions will be granted for vaccines that are developed in Cuba and marketed by an international drug firms. The concern among a number of our participants is that many Americans who suffer from one disease or another will not be able to readily avail themselves of vaccines that could benefit them, because of the embargo. A second aspect of this, which was pointed out by our colleagues in discussing sickle cell anemia, is that, because of the comprehensiveness of the Cuban public health system, patients with particular diseases are closely tracked. The doctors
know where they are. Regarding the work that is going on in Boston of new, potentially, beneficial vaccines for sickle cell anemia, physicians in the United States could benefit greatly if they could conduct joint clinical trials with their Cuban colleagues on Cuban patients with sickle cell anemia. There's a ready-made patient base here. Cuban specialists in sickle cell anemia could collaborate with their colleagues in the US in setting up and running these clinical trials. And a good deal of time might be saved in bringing these vaccines to market if physicians in the United States had the availability to work more freely with their Cuban colleagues. As we know, sickle cell anemia affects large numbers of black Americans in the United States, and the time saved in bringing new treatments to market, if there was no embargo, could be tremendously beneficial.

[musical interlude]

DWYER: What about future links between Pugwash and Cuba?

BOUTWELL: We have a strong Cuban Pugwash group, several members of which come to the large annual Pugwash Conference, and we're able to continue discussions with them in that forum. But we definitely are looking forward to a third workshop here in the future, maybe in the next year or year and a half, that can take the issues that we have discussed so far even further. I guess I would close with the comment that the experience that we've had here these past three days typifies as much as anything the reason that the Pugwash Conferences were founded in 1957 in the first place. That is, to get scientists and professionals together from different political systems, different social systems, to get people together who don't find it easy to work together because of political barriers, institutional barriers. It need not be an embargo by one country or another; it could be current political tensions or different cultural attributes, that only face-to-face meetings and intensive work over a period of time will overcome. That is certainly the experience we've had in Havana with scientists talking on two levels, one, the straight scientific level and the sharing of research and knowledge, but two, translating that knowledge into practical policy outcomes. Essentially bringing knowledge to bear as rapidly as possible for the benefit of people. That's really what Pugwash is all about.

[musical interlude]

DWYER: You've been listening to Part II of an interview with Dr. Jeffrey Boutwell, participant of the Pugwash International Conference on "Medical Research: Strengthening International Cooperation," which finished last weekend here in Havana. I am Bonnie Dwyer, for Radio Havana Cuba.

[musical interlude]

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