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### THE WHITE HOUSE

### Office of the Press Secretary

For Immediate Release

December 2, 1987

PRESS BRIEFING
BY
ADMIRAL JAMES D. WATKINS,
CHAIRMAN OF PRESIDENTIAL COMMISSION
ON AIDS

The Briefing Room

2:48 P.M. EST

MR. COOPER: This briefing is by Admiral James D. Watkins, Chairman of the Presidential Commission on AIDS. It is for sound and camera.

ADMIRAL WATKINS: Today, on behalf of all members of the Presidential Commission on the Human Immuno- Deficiency Virus, HID Epidemic, I submitted our preliminary report to the President of the United States. The preliminary report, as many of you may know, was passed to the Commission in the Presidential Executive Order of 24 June 1987. And in that he required this preliminary report within 90 days of the commissioners being sworn in. While we are a week early, in terms of the end point of that 90 days, I felt it very important that we get the report in in timely fashion so we could move on expeditiously with the important work at hand.

You've just been passed copies of this report, and while you haven't had a chance to look at it yet in any depth, basically what it is is a situation report which includes a section on where we have been, what I call the base line review, the process for the future, where we are going, and an approach that says we are going to identify for you, Mr. President, obstacles to progress in prevention, care, and cure of this infectious disease.

We also point out to the President that we feel there are certain critical issues that are of such importance, not only to the Commission to carry out its mandate, but more importantly, to those with AIDs and to the rest of the American people as a whole, that we informed the President that we intended to submit interim reports as required, but we felt in specific there were four issues on which we had to report in February. And these will be resolved by the Commissioners during the forthcoming December and January hearings. The first of those hearings on prevalence will start next week. These four critical areas are outlined in the report and in the forwarding letter to the President as follows: Incidence and Prevalence. This is urgenly needed for any kind of long-term projections, which we were required to report back to the President on, such as financial impact, the amount of health care needed for the nation in the future and the like. The second issue will be on patient care. And I point out in the report in some depth the need for home health care programs and other out-of-hospital care programs. The need is urgent, and we have to facilitate and expedite making available the necessary facilities to handle the current load, let alone the projected load.

Third issue of requiring some urgent attention, in our opinion, is new drug development. There seems to be a mismatch between what we hear from grass roots, many with AIDS and those that care for them, and what we hear at the highest level, and looking in the middle seeing a state change its laws regarding expeditious entry of experimental drugs into the system to deal with this fatal disease—has inspired us to look at this on an urgent basis.

- 2 -

And lastly the issues that we intend to focus on in the very near term, among the many we will have to focus on in the longer term, will be the subject of substance abuse. Our investigations to date have shown that inpatient and outpatient drug abuse treatment programs are still unavailable to HIV infected individuals, and this was borne out once again in a recent trip to Florida in which at least in one or more counties those that are HIV infected cannot receive help at the very clinic that is attempting to rehabilitate them from their drug abuse practices.

And then I close out in my forwarding letter to the President a statement that the HIV epidemic will only be controlled by developing a national strategy that combines the best research, health care, legal, educational, public health and financial wisdom available. And we think that in the challenging months ahead — the next six months that the Commission has in it life, that we can come to grips with these issues and provide the advice to the President and his Cabinet, to federal, Congressional and state leadership that will helf focus all of our efforts in an evenhanded and balanced fashion across the nation in one of the most aggressive public-private ventures that has ever been taken on in the country. We think we can guide that, at least at the outset, and set some ground rules for the future.

I believe our Commission is now on a solid footing. I think we have our act together, and we're encouraged that we can carry out the remainder of our charter under the Presidential order in timely fashion.

And, with that, I'll open myself to questions.

Q Sir, you indicated that you will release or send recommendations to the President even before you finish the final or even the interim reports. When do you expect these first recommendations will go forward?

ADMIRAL WATKINS: In February. We must look at these four issues in the ensuing two months. We will have extensive hearings starting next week on prevalence, followed the following week by I-V drug abuse. So the aggressive schedule I am talking about sets our sights on at least two if not more hearings per month. These will be two- and three-day hearings. They will be extensive by the best witnesses we have in the country on these issues, and we hope not to have to wait until 24 June to give the President our thoughts on these. And we've staged it in a way that these issues, we think, can be compartmented and isolated up front, and we can take positions on those that need not wait for six months.

Q Sir, to follow up, might, in terms of your recommendations, the Commission consider the availability of syringes for heroin abusers and the increase in drug --

ADMIRAL WATKINS: It will be the subject of considerable discussion during the middle-December hearings on I-V drug abuse, but which Dr. Ben Primm, one of our new arrivals, is one of the nation's leading experts, and he will actually help me chair that particular set of hearings. In fact, as you may know, we had the Institute of Medicine, National Academy of Science group the other day where we began a debate on the efficacy of clean needles and syringes, even in a pilot demonstration program.

Q Your report's conclusion, according to the press release at least, said that -- referred to the need to set aside prejudice and fear. Some conservatives in and out of the administration say there is no evidence of discrimination in any significant fashion against AIDS sufferers. Are they wrong about that?

ADMIRAL WATKINS: I don't know what -- who you are referring to. I do know that from a grassroots level, with many of

the individuals who are actually afflicted with the disease, that they believe and I happen to feel that some of them have been discriminated against without any question. We see it in the willingness of many communities, for example, to accept home and residency and hospice programs, so it's really there, and the degree to which we can solve that problem as Commission members is probably problematical, but I do think we are going to have great focus on this particular area because when you get into the area of discrimination or confidentiality you are probably at the root of the apprehension and fear that is out there on the part of those that are afflicted and those that would be willing, for example, to come forward in the voluntary testing area.

Q A follow-up. Is it your hope and your expectation that this Commission will actually take a stand as opposed to just raising lots of questions -- take a stand on such issues as mandatory testing, federal discrimination?

ADMIRAL WATKINS: My feeling is that this Commission must take a stand on most of those issues. Some of those issues perhaps will require the pros and cons when it's not very clear at the time we complete our deliberations that we can even come down -- we may not have all the information at our fingertips to make a decision. But I am not going to allow us to shy away from the difficult issues. We have committed ourselves as commissioners -- and I make this statement to the President -- we will not shy away from these controversial issues. How far down we get on those issues is going to be subject to debate. My feeling is that we can get down as far as we need to go to solve our problem as commissioners to carry out the mandate the President has given us.

Q Admiral, are there any recommendations at all for immediate federal action in this report, and if not, is February as early as you will do that --

ADMIRAL WATKINS: Yes, February is as early as we can do it.

Q Has the White House gone along with that strategy?

ADMIRAL WATKINS: The White House has received this paper. I'm sure that it would be premature for me to say that the President has reviewed it. I think it's only fair for them to take a look at it. We have never raised expectations that in the preliminary report of an issue as complex as this that we would come down on recommendations on some of the most controversial public policy issues that have ever faced this nation in a few weeks. After all, it was only eight weeks ago that we were under severe criticism by you and many others, and in many cases, legitimately so.

So for us to come out now and pontificate on some of the most delicate issues would be, I think, inappropriate. And I have said that publicly many times -- that our attempt now is to get ourself focused on a structure and an approach to this complex issue. And if you'll read the first 22 pages of that report, you are overwhelmed by the scope of this disease and how it's going to impact on the nation as a whole.

Q Will the recommendations be unanimous opinions of the Commission or will you have minority reports?

ADMIRAL WATKINS: There is no way that I believe I can get unanimous opinions on many of these issues. They will be majority opinions. I will certainly entertain where necessary minority views. I think that's appropriate. After all, there's some 54 bills on Capitol Hill, none of which have passed the Congress, because of the very issues we are talking about here today, and I don't expect that the Commission is going to have 100 percent consensus. I happen to be one that believes that if you have 70 percent consensus in this country, you're doing pretty well -- 80 is

really fine. And 51 to 49 is not unusual.

Q The Commission is going to discuss that scope in some way. You said it covers 22 pages. What do you mean?

about the scope of the charter itself is very, very broad. If you've read the charter of the Executive Order, which is included in the report -- and it's in your package, by the way -- it is very, very extensive. And in the first 22 pages of our report, we've somewhat grasped the scope of the variety of issues that are in this Executive Order. And I think you'll see as we go through there that we have a dedicated Commission, we know where we're going, we have the issues surrounded, and we're focusing on those where the 200 witnesses that we've had come before us say we need help in these areas. And that is from grassroots to the highest level.

so my feeling is that we're cutting across every single agency, every single community-based organization, every single religious body that gets into the care and help of others across the nation in all aspects. After all, we're asked to look at the medical, ethical, legal, social and financial impact of this epidemic on the nation. I can't give you a broader cross section of the country when we have that kind of a mandate.

Q Will you expand on this match you talked about in terms of new drug development?

ADMIRAL WATKINS: Well, in the recent CDC weekly AIDS report, for example, I believe they reported some 42 -- 44 different drugs -- experimental drugs worldwide to deal with AIDS. In this country so far we have one drug that is licensed and designated solely for the epidemic, as you all know, and that's AZT.

So -- and while there are many other experimental opportunities there, the mismatch is this -- a person with AIDS -- let's say a recent visit to Florida highlighted this to me -- a person with AIDS came up to me and said, "Because I have been unable to apply some of the drug protocols in this country, I've gone to Paris and received those drug protocols, including Ampligen. I am now on Ampligen and a special protocol in Philadelphia. I have lost my Kaposi's Sarcoma red blotches. I feel good again, and while it may not extend my life, I am healthy, I feel good about myself, and my feeling is that more of us need to be on such a protocol."

That is the kind of thing I'm talking about. We don't know what is wheat and chaff. I am not smart enough -- I'm not an expert -- a medical expert -- but I have a team now that I've brought aboard, and I point this out to the President -- seven good solid medical types who have had their hands in the AIDS business for a long time who know what they're talking about technically, and they help advise me on a day-to-day basis -- they are full-time staff -- to help me on these kinds of issues. And I believe they even feel that there's a streamlined approach to better balance. Those that are crying for more involvement with experimental drugs. And they're willing to use their own bodies in that test if they can feel better and do better. And many of them find it immoral, for example, knowing that it's a deadly disease and they're on that track, to receive plate placebos in this particular case. When they know that, at least with the AZT protocol, even for those infected there seems to be indication of prolonged life. Not, perhaps, very long, but some indication.

So these are the kind of things we're going to try to deal with on that particular issue. They're very real, but to the people that have AIDS -- and I believe it's something that we've heard enough about that we can no longer wait on that particular issue. And that's why we're putting it up front.

Q Is it your sense, then, that the FDA is delaying the

ADMIRAL WATKINS: No, I think it'd be very premature to say that. It -- you know, there's a lot of people involved in that whole package. From the pharmaceutical companies that may develop something, to the testing procedures, the NIH involvement, the FDA -- I think it would be a mistake.

This is a public-private venture, as I say, of the first order in the nation. We don't want to start putting -- poking our finger -- as Commissioners at this stage in our early life -- at where fault might be. Our whole emphasis will be a positive approach to give greater hope to the nation that we can keep this under control, protect the public health and care for those afflicted as well as find the cure. And I don't think we want to start poking our fingers at anyone right now. We're saying, here are the issues that are coming up from witnesses and we're going to take them on head on.

### Q Admiral --

ADMIRAL WATKINS: Right back here.

Q A few moments ago you said, when you read your report, "One is overwhelmed by the scope of the disease," I think you said, and how it will affect the nation.

ADMIRAL WATKINS: The scope of the issue, I think, surrounding the disease -- how broad it is and what kind of issues you get into in public policy as well as health and all of the various aspects of dealing with it.

Q You also -- you -- I think you finished your statement by saying, "and how it will affect the nation as a whole."

ADMIRAL WATKINS: Right.

Q I wonder if you would expand on that for us now.

ADMIRAL WATKINS: Well, I think there are many in the past -- and it's rather typical of infectious disease histories -- to go through certain phases of disbelief, of a small community -- it's not applicable to us -- to the final recognition that it's all of our problem.

We went through that in drug abuse and now we know it's a national malaise that we have to deal with. And it's directly related to what we're doing in the AIDS business. As you know, a recent report in New York stated that those that were in the I-V drug abuse business were 53 percent affected in -- with the AIDS virus -- infected with the AIDS virus.

So when I say, affect the nation as a whole, we can no longer sweep it under the rug as being focused in certain select community areas. It's all of our problem -- we're going to have to deal with it that way.

Q Can I follow that up on the scope of it? I don't know if you're aware -- the CDC report I believe is being released today. But what can you tell us about not only the present incidence of AIDS, but more importantly, the projection --

ADMIRAL WATKINS: Right.

Q -- about its penetration in the at large --

ADMIRAL WATKINS: Well, this is why our first issue is prevalence, because it's so important for us to get that baseline. Now, I was able to be briefed this morning by the Domestic Policy Council representative on the content of the briefing you'll receive this afternoon. And it's an effort by CDC to take all the data from

a family of surveys and begin to harden up some of the information that was presented in 1986 on the data.

I think you'll find -- and I have not read this thing in any detail -- I've only been briefed. But, on the surface, it appears that no major upheavals in that data are going to be presented. There is a spectrum -- and I don't want to take anything away from the next briefer -- there's a spectrum that generally falls within the one-to-1.5 million projection of HIV infected individuals in the country that was projected last year. So I don't see any major change in that at this point. But it also agrees, in that report, with our report. So they are generally very mutually supportable that prevalence information is essential to make our projections. And they aren't there yet. And the White House has embarked -- the President made a decision in October, to move out expeditiously with not only the family of surveys, but a set of pilot runs on nearly 30 cities in the nation. Followed by, over the next couple of years, at least as recommended by the CDC, a sero prevalence, a survey throughout the nation, when all of the things that we are trying to deal with now can be set aside so that volunteerism can bring forth a good, solid sero prevalence survey that makes some sense, from which we can make the kind of budgetary and other projections we need to deal with this disease.

Q Will the Commission go out of business after you submit the final report?

ADMIRAL WATKINS: The charter says that we are out of commission on 24 July 1988.

Q Will you be making any recommendations to establish a national AIDS commission?

ADMIRAL WATKINS: I think that clearly one of the topics we must discuss is the topic raised by the American Medical Association and the National Academy's Institute of Medicine, in which they recommended a commission that is a little bit unlike the commission we have. We certainly can be a contributor to a concept of a follow-on commission. But those two bodies recommended that there be some continuing central body for coordination of the variety of things we see. This will be a topic that we'll be debating during the forthcoming six months, and certainly will be one of the recommendations we must make to the President, so that we don't leave this with a commission report that gathers dust on the shelf, but rather there is hopefully going to be some continuing leadership recommendations we can make to the President to allow him to pass the baton on to his successor in a more orderly way on this particular issue, so we don't lose momentum and we don't have to have a new commission to review it two years from now. Hopefully, we can do that.

Q Admiral, considering the scope of the problem, why do you feel confident you will be able to make recommendations as early as February to the President?

ADMIRAL WATKINS: Well, those are only on very selected issues. Those are four issues that I talked about. That is not on the entire report. We cannot begin to cover the entire report. In fact, 24 June is going to press us to the very limit. You look in that report at the schedule of hearings alone, and remember we have to follow the Federal Advisory Commission Act, which is a very specific act that controls our operations. And we have to go through federal register and all the preparations. And the openness makes it almost difficult sometimes to have debate that we would like to have preparatory to some of these hearings. So we have a a lot of things we have to go through. And two hearings a month at three per hearing, three days per hearing, is a very rigorous schedule. But I enjoy the openness of this particular one because I believe that in that openness, there is a mechanism to help bring some calmness to what has been in many cases a rather chaotic and confused picture out

there at grass roots level. And at least we are talking now, I think, in an orderly fashion. That there are many players in this game and all of us have to pull together, public and private. And it certainly is not all federal by any means, as we have seen when we are in the field. It is going to take all of us.

Q Admiral, you said one of the issues you will be debating is whether or not to supply clean needles and syringes to drug addicts. Wouldn't that be, in effect, advocating illegal acts under the state and local laws?

ADMIRAL WATKINS: Well, yes, because you see -- but this is a recommendation, after all, from a very prestigious organization. And if you will read the report of the National Academy's Institute of Medicine -- and they weren't overplaying it. They said should there not be, we recommend that there be some kind of a test program on that. We are raising the question in our Commission. We don't quite understand that. Is that more important than say, enhanced methadone clinics and rehabilitation clinics, that now have three to six month waiting lines in New York City alone. Shouldn't we be focused on that side of it rather than on this which has the perception of encouragement, of carrying out an illegal practice. So we are on your wavelength. I don't want you to think that we are -- we are just raising the issue now. But I hope that we can make a recommendation to the President along the lines -- on all aspects of I-V drug abuse. And to move out in a much more aggressive way because this is going to become a much more serious issue in the nation as a whole, as you all know, in just drug abuse, let alone AIDS related drug abuse.

Q Maybe you've already talked about this, but in these areas that you are trying to move immediately on, there is no mention of a comprehensive education campaign.

ADMIRAL WATKINS: Oh, yes, but you see that is going to take -- I think we either have three or six days of hearings just on education alone. This is going to take real time and work on our part, because the education that is going on now at grass roots level, at state level, and even some federal documents and so forth, we are going to be looking at the efficacy of each one of those. Are we reaching the communities or are we kidding ourselves that we are getting to the very people who may not be able to read some of those documents, may not even be influenced by them. How good are they? We don't know all those things yet, so we recognize that the sole weapon we have today is education. But we are not smart enough at this point in time, without extensive hearings and review, to know exactly what that process should be. It is one of the most Because you are not just dealing with education of the complicated. infected people or the non-infected people. You are also dealing with education of health care providers, doctors, dentists, and all the others who have to -- and counseling and the like, counselors and the like, that have to bring their skills to bear on this thing. That education is every bit as important as the education of the American public. So all of those things have to be packaged up. In fact, the AMA itself, in March as I understand it, is holding a massive conference on education on AIDS to deal with their own medical community. And I think that could well be the embryo of a more structured and orderly national policy on education regarding all aspects of AIDS.

Q But you could triage education issues and focus on the group most at risk, the I-V drug use community.

ADMIRAL WATKINS: We will -- in the I-V drug abuse issue, you are correct. We will specifically look at intervention strategies. Because, as you know, they haven't been very successful in almost anything we've done in drug abuse. Recidivism is very high and many we just can't get to. So this will be a very definite piece of the education process, but in no way can we surround education in two months. It will be one of the most important of all of the

subjects we take up and will require extensive hearing. Yes?

Q Admiral, from the data you have seen now, how would you characterize the threat that the AIDS epidemic poses to the nation? And is there anything you can compare it to within your own experience in another century?

ADMIRAL WATKINS: I don't have -- I am not a medical person. So it is difficult to me to place it in perspective with other sexually transmitted diseases, for example, such as syphilis in the 30s. I just can't do it. There are many elements of response, of national response to infectious disease which are similar. But the disease itself is not. This is a fatal disease. We have -- the latest epidemiologic report from CDC says 47,000 now are infected, 60 percent of whom have already died. The projections that were made are now being validated to a certain extent in the incident reports. It's a very serious disease that's going to cost the nation in 1991, we know now, at least \$16 billion to deal with, so it's a significant disease. It's a great killer, it's one we have to worry about.

I think the heterosexual transmission is not all that well-known at this time. We're going to be certainly worried about that. The American people are worried about it, all the surveys say the American people are worried about it, so I have to say certainly from my experience, and my experience within the Navy is about all I'm limited to in the area of infectious disease, is, this is the most significant infectious disease certainly this nation has ever faced.

Now, I believe that all those statements made early on on this have not changed. They will not be changed today, as you hear the CDC report. I think it would be very dangerous for this nation with -- let's say that the upper limit now instead of 1.5 million is 1.4 million to say -- aha, it's receding, and therefore it's not as big a problem. It is a significant problem, it is not going to go away. It's here for a long time. Remember that the incubation period is now being demonstrated as moving out from about five to eight years. And that is even more worrysome about the long-term impact on the nation of those infected with the virus. So it's going to be here a long time, and it's a tough one, and right now, as you know, Dr. Koop has said he doesn't see any vaccines coming on the scene for five to ten years, and the cures are not in hand yet -- maybe five years away, and to some degree, we've seen a little contribution of that with AZT, but certainly that's not the answer.

Q Does the Commission believe it knows where AIDS came from?

ADMIRAL WATKINS: Knows what?

Q Where AIDS came from.

ADMIRAL WATKINS: I don't -- it's not in our charter to find out. I think we're -- I don't know that we're going to be really looking hard at fixing the source of that. Obviously in the presentations we've had, we've been told a little bit about its sources, and what it's not, and perhaps that might be of some interest, and certainly we can pick it up. But it has not been one of our items in focus at this point. It's not asked of us in the charter.

Q The commission has been criticized for not having a PWA as one of its members. How much input will they have in helping you draft your --

ADMIRAL WATKINS: I have a PWA in my staff who happens to be in the hospital right now with a pneumocystis carinii pneumonia.

Q In what capacity?

MR. WATKINS: He works with us. He does a lot of the press work for us. He's a wonderful young man. I've been in contact with him in the hospital. We may lose him, I don't know. I hope not. We're giving him all the help we can. We're going to try to get him on an Ampligen just because he's with us -- on Ampligen "protocol", to give him whatever help we can for the remainder of his life. And in fact, we're seriously considering bringing on another individual right now to work who has some very specific skills that can help us in the Commission work. We also have one -- a gay member of the staff who we hire as a consultant periodically. He's given us a great deal of help. And I think we've learned some new insights by having this kind of closeness within the staff. So I don't think you need everybody on the -- as a commissioner who either has AIDS or has these other interest group feelings. I believe we have a good Commission, we have a terrific staff, and we're balancing that staff with the kinds of individuals that can give us the best insights.

Q Do you think there should be stronger anti-discrimination statutes if you're asking for more testing to get better prevalence data, or are you also asking --

MR. WATKINS: There has to be more anti-discrimination. Statutes begin to worry me a little a little bit. We had a presentation before the Commission by a group under consultation of HHS that gave an incredibly important report, and it's in your document there, which is a summary of what's going on in the States. And I admit two years ago if you look at the body of information coming in from the States on this subject, there were about 40 pages. Today, there are three volumes. And it makes a difference. The States are moving out in many ways. Perhaps some of them disconnected it with other States, and perhaps they're focusing on different issues. But nevertheless, they're moving out. And many of them are getting into this anti-discrimination aspect of it in a big way, whether you subsume it within the handicapped set of laws that exist today, or whether you generate new ones, I'm not sure. We're going to have an entire section on legal and ethical issues, and one of which is going to be focused right in this area.

Q What worries you about statutes, if you didn't -- you said it worries you.

MR. WATKINS: Well, I worry about anybody writing a simplistic law. We found out, and I pointed out to the President in my report to him, that what -- what on the surface seems very logical, when you get down to the human level begins to fall apart. So, certainly flexibility has to be in there when we're dealing with human beings, each of whom seems to have a different case history. And so all I'm saying is, a race to statute is okay, providing we know what we're doing. I hope that we can provide some guidance to the President, for example, of how he might deal with anti-discrimination statutes when they come to him, and I think we can give him balanced perspectives on those kinds of things, and we can read what's coming up from the states. We've had a lot of experience, at a grassroots level. But certainly, we are going to be sensitive to the anti-discrimination and confidentiality issues which really right now are one of the obstacles to progress.

Q You said you had gay people and AIDS victims on your staff. Do you have any I-V drug abusers?

MR. WATKINS: No, I think that's rather --

Q That's a major part of the problem.

MR. WATKINS: I don't know of any I-V drug abusers right now that would be all that useful. Now, if we have a rehabilitated drug abuser who really is moving in expeditiously there, then I hope Ben Primm, in his work, because he's chairman of this group, will get an advisory panel together of these kinds of intervention strategists

to help us understand better the I-V drug abuser. I really don't -- I don't see a need to have every one of these kinds of individuals as commissioners in order for us to tap the well of knowledge that's out there. Certainly in the area of minority AIDS, we have one of the best gentlemen in the country on our Commission, and he has been charged by me to pull together whatever advisory staff he needs to help in this regard, and to help advise the Commission, and I think that that's quite adequate.

THE PRESS: Thank you.

END

3:22 P.M. EST

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### THE WHITE HOUSE Office of the Press Secretary

For Immediate Release

December 2, 1987

PRESS BRIEFING BY

SECRETARY OF HEALTH AND HUMAN SERVICES
DR. OTIS BOWEN AND
DR. MASON OF THE CENTER OF DISEASE CONTROL

The Briefing Room

3:33 P.M. EST

MS. ARSHT: This briefing by Secretary of Health and Human Services, Otis Bowen, and Dr. James Mason of the Center for Disease Control is ON THE RECORD for sound and camera. I want to tell you as we start, that Secretary Bowen is supposed to be back at the Department for a 4:00 p.m. meeting.

Q That's fine.

MS. ARSHT: And we are running a little late, so you might want to question him first.

Q What's happening at 4:00 p.m.?

SECRETARY BOWEN: Today we're going to provide you with a report which is a review of the current knowledge on the spread of the HIV infection, and we're also going to give you a summary of plans for expansion of the HIV surveillance activities.

It represents the first step in implementing a comprehensive national HIV surveillance program, which has been developed in response to the President's directive to our Department, which was: Number one, to carry out a comprehensive program to determine the nationwide incidence of the HIV virus, and to predict its future occurrence, and to initiate epidemiologic studies to determine the extent to which HIV virus has penetrated the various segments of our society.

The development of this surveillance system represents the latest step in the federal government's efforts to halt the spread of the AIDS epidemic caused by HIV.

Previous efforts and accomplishments would include, in 1981, soon after the syndrome -- later to be called the Acquired Immune Deficiency Syndrome -- was recognized, the PHS, through the Centers for Disease Control, began recording morbidity data for all AIDS cases recorded by state and territorial health departments.

Research efforts were initiated to attempt to determine the causes and the potential cures for AIDS. In a few short years, we were able to show epidemiologically that AIDS was caused by an infectious agent, and guidelines were then issues for the prevention of AIDS through blood and blood products, and between persons, and then in 1984 the AIDS virus itself, later to be called HIV, was shown to be the actual cause of the disease.

In 1985, the AIDS antibody blood tests were licensed and screening of the nation's blood supply began. In 1986, in response to continued spread of the disease, the Public Health Service developed and published an action plan to serve as a guide for continued research and as a basis for an expanded information education plan to prevent AIDS in our country.

- 2 -

In that same year, the President directed the Surgeon General to prepare a report on AIDS that could be used to provide information to the public and to the health community about the disease, how it is spread, and how to prevent the infection. And, as you know, the Surgeon General's report was issued in October of '86.

During this past year, we were rewarded by some of the --with some of the fruits of our research efforts, with the licensure of AZT. Our Department's information and education program moved into an intensive phase marked by the expansion of HIV counseling and testing and the prevention of AIDS.

Groundwork was also laid for moving into a new phase of AIDS surveillance, which we are implementing in this fiscal year. Our surveillance system of AIDS cases will be supplemented by a new system to provide us continuing information about the extent of HIV infection in the United States. In this system, we will gain information from a family of surveys, including 30 cities across the United States, to be conducted under the auspices of CDC. In addition, CDC's National Center for Health Statistics will conduct pilot studies to determine the feasibility of conducting a national household sero-prevalent survey.

The pilots will take over a year's time, and they will help us to determine: Number one, if we are on the right road; number two, if not, which direction should we be headed; number three, whether the journey should continue.

It's clear that we are dealing not with just one epidemic, but actually a series of sub-epidemics, varying in the way that it is affecting different parts of our population, varying geographically across the nation. This new program can provide information that is needed by cities, states and the federal government in developing policy and planning future actions.

Armed with information about the number of people infected, the prevalence of HIV infection, and information about the progression of the HIV epidemic, which we call the incidence, then policymakers at all levels will have the information needed to target the distribution of prevention sources to population in greatest need, to plan for health service needs, direct research to behavioral change, prevention on other areas, and then evaluate the effectiveness of the HIV prevention and control programs.

And now, Dr. Mason, Director for Centers for Disease Control, will go over the plans for the expansion of the HIV surveillance activities.

Dr. Mason?

DR. MASON: Thank you, Secretary Bowen. I suspect that many of you have been sitting for quite awhile, and you'd appreciate it if I'd be brief.

Better and more extensive information on the sero-prevalence and sero-incidence of HIV infection in the U.S. population is essential. As all of you know, we've had over 47,000 cases reported in the United States. But in a disease with a terribly long incubation period, the number of reported cases does not represent well the extent of infection among the population of this country. With an incubation period that is at least 7.5 years, we need to know what's going on under the water, in terms of an iceberg of infection.

If this nation is to pursue wise policy development and planning, we need to know how many are really infected. We need to know the rate of spread in various risk groups and in communities throughout the nation. We need to know patterns of occurrence. Secretary Bowen has said that we're not dealing with just one epidemic. National figures are just an additive set of numbers that

represent what's going on in 50 states and hundreds of communities throughout the nation.

And if one thing is clear to us, that the epidemic and IV drug abusers is not identical with the epidemic among homosexual or bisexual men, or among heterosexuals. The epidemic that was caused by blood clotting concentrates that were given to hemophiliacs is different, because no longer are those clotting factors infected. So, the shape and the dynamics of that epidemic are totally different from IV drug abusers, where infection is still continuing to occur.

And so, we've been directed by President Reagan to get a handle on not only national figures, but to work with state and local health departments, so that we will know in depth what's occurring in terms of infection. That's the only way that we really can determine resource needs; where to target these resources geographically, or to populations at risk; to plan for health care services that are needed today, and that will be needed in the future; what research is still required with regard to behavior, prevention and control, or with regard to other aspects of the epidemic?

And finally, without the kind of information about spread of infection, we really can't evaluate how well we're doing in getting this epidemic under control -- whether our media campaigns, or whether the education that's being provided in schools or billboards or whatever's being done -- does it have an impact? Are people changing behavior to reduce their risk? We don't know unless we're able to look at infections.

So, the report that you've been given is a comprehensive systems of getting the information that will be needed to improve our policymaking and planning. We're going to start by continuing the data that's being collected by case reporting. We're going to continue to look at data that's being collected by the nation's blood banks, by the military applicants, by Job Corps enterers. We're going to continue to look at the research studies that have been done as we followed cohorts of infected individuals.

In addition, we've been directed to begin a surveillance system in 30 standard metropolitan statistical areas. We selected those areas based upon 20 high-risk areas in terms of reported cases, and 10 medium- to low-risk areas.

And in those communities, with the cooperation of community health leaders, state health departments, we'll be collecting information in STD clinics, in drug treatment clinics, in family planning clinics and prenatal clinics, tuberculosis clinics, and in sentinel hospitals. This kind of information collected over a period of time will not only give us an understanding of patterns of infection in terms of prevalence data, what is there today, but as you see that over a period of time, we'll be able to measure acquisition of new infection, whether incidence rates are declining or increasing or staying the same. And that is actually very important in terms of pursuing our control and prevention procedures. I think I'll stop there, and with Secretary Bowen, answer any questions that you might have.

Q Dr. Bowen, on these new -- in the 30 cities or metropolitan areas that you are going to do this new testing, will this new testing in prenatal clinics, drug abuse clinics, sexually transmitted disease clinics, be voluntary and what will be the level of confidentiality?

SECRETARY BOWEN: I think I am going to refer the question --

DR. MASON: This will be anonymous testing so that confidentiality will be absolutely preserved. We are already doing this in sentinel hospitals. And, of course, it must be done so that confidentiality is ensured.

- Q What are sentinel hospitals?
- ${\tt Q}$   ${\tt If}$  somebody tests positive anonymously, do you intend to tell them that they have it?

DR. MASON: On anonymous testing, for example, in a hospital setting, a random sample of blood samples are provided and no identification is given. All we get is age, sex, race and where they live. If an individual tests positive in this kind of an anonymous system, there is no way that we can get back to the individual because we don't know who it was.

Q What are the medical ethics of not informing a person they have AIDS?

DR. MASON: These people would not have been informed if the study hadn't been done, because the blood wasn't drawn for that purpose. And we have carefully gone to ethicists and ethics committees and this is felt to be perfectly consistent with obtaining information without violating confidentiality of individuals.

### Q Secretary Bowen --

SECRETARY BOWEN: I think you are also underestimating what the physicians themselves are doing. They want to know if their patient has AIDS, and I think if we leave this into a system of strictly public health and doctor-patient relationships, that there is going to be a lot more testing done than we -- any of you think will be done, and that you have a built-in system of confidentiality. You have a built-in system of counseling with the doctor-patient relationship. And just because they had an anonymous test, there is no sign that the physician may not have ordered the test himself too.

Q Dr. Mason, five weeks ago you spoke to a bunch of reporters at a breakfast meeting. Dr. Bowen was there too. You mentioned the thirty cities, you mentioned the sentinel hospitals. You also said you are abandoning any at this time. At the time that you spoke, you said you were abandoning any hope of a national seroprevalence study in large part because so many people were unwilling to participate. You now suggest that you're again adopting it. And it's six years into the epidemic -- CDC basically doesn't have good numbers on how many people are infected. What are you doing differently now that you haven't done before? And why are you now switching gears and readopting something you abandoned a month ago?

DR. MASON: We haven't abandoned anything. We have been working on the thirty sentinel cities during the last six months. My comment that you are alluding to was a question with regard to a national seroprevalence survey, which is a bit different than what we are talking about. And I was asked about the probability of such a national seroprevalence survey being done and I said the likelihood, I felt at that point in time, was small. What we are doing on the national seroprevalence survey, as we've moved ahead now, in the Commerce Business Weekly, that we are going to do through contracting, pilot studies in probably up to three communities to see what kind of a response rate we can get in a random household survey. We will look at each of those and if we can get the response rate that would be required to accurately do a national seroprevalence survey, then following the pilot studies to work through the numbers, the response rates, how big a final sample would have to be made on a national basis, then at that point a decision will be made whether to do the national seroprevalence survey.

Q Dr. Bowen, given -- bearing in mind what you said about this being a series of epidemics, what has this review, what new picture has it painted in your mind as to what the situation with AIDS is in the United States?

SECRETARY BOWEN: I don't think that it's painted any new picture. I don't think that very much has changed, but we still have to admit that the data that we have is not as good as we would like it to be. I think that the statistics show that this is not a massive wildly spreading epidemic among heterosexuals, as some people fear, and I think that panic should be avoided in all instances. And that is probably why we want to make as careful an offering of the scientific information that we have available to all of you because we do consider you partners in the education of the people. And goodness, any questions that you have, we want to make every effort to answer them so that we can get the good information —

- Q How many AIDS cases are there in the United States now?
- Q What are your best estimates of the numbers of AIDS patients out there? What are you best estimates?

SECRETARY BOWEN: Dr. Mason just went through that in another meeting, and he did it so well I am going to ask him to do that once more. He has the figures right on the tip of his tongue.

DR. MASON: Eighteen months ago, June, 1986, at the Coolfont Conference of the Public Health Service, were experts from within the Public Health Service and without the Public Health Service were convened together. A number of projections were made. One projection was that by 1991 there would be a total of 270,000 cases and that 154,000 individuals would have died. And in this conference, by using an empirical model, we estimated that somewhere between 1 million and 1.5 million Americans were infected.

As a result of the exercise that we've gone through in producing this report, we've updated risk factors in terms of the various high-risk groups. We've looked at the best statistical data we could get -- 50 surveys and studies of homosexual men, 88 studies of IV drug abusers, we've looked at hemophiliacs. And we've revised some of the approximations that were used 18 months ago. And, interestingly, when you make those revisions, it doesn't change the total infected a great deal -- about the same range -- 1 million to 1.5 million infected.

In addition, we tried using exponential models to see if we could come any closer to this, and the problem with these models is that we don't have the data that we need. For example, we don't know the incubation period of AIDS -- how fast infection progresses to disease. And when one plugs this into a model, you get such a wide range. The best estimates of range -- ranging from about 400,000 infected to about 1.7 million infected. And so even those kind of models don't give you a more precise estimate.

So we're basically saying we'll stick with our figure of 1 million to 1.5 million infected. Now some of you are going to say, well, does that mean that no infections have occurred in the United States in the last 18 months because you're staying within the range. And that's not what I intend to say at all. We probably were a bit high a year and a half ago, and our instruments aren't accurate enough to measure changes that have occurred within that range.

The numbers that were being bandied about in June of 1986 with regard to the number infected was somewhere between two and three times higher than what our estimate was, and everyone thought we were being awfully conservative. Well, it turns out, we may have been a little high, but we certainly are within the range and we're not going to make any change in that range until we have additional information that will enable us to do that more accurately.

- Q Can I follow that up?
- Q Dr. Bowen, you say that the disease is not spreading

Q Just to follow that question up before you get onto a new subject, can you tell me whether or not, based on what information you now have, whether the incidence of AIDS has stabilized in every group except the minority community in the U.S.?

DR. MASON: No, I can't say that. I think in this multitudinous epidemics that the dynamics are such that some are decreasing in incidence figures, particularly white homosexual males. Most of our studies show that the incidence is down. In IV drug abusers generally, I don't think we see that same decline in incidence. Now IV drug abuse, inner cities, poverty, blacks, hispanics -- it's hard to separate that mix.

### Q That's still going up?

DR. MASON: But for that reason I suspect in our inner cities and our black and hispanic groups, we're still seeing an increase, particularly associated with IV drug abuse and the heterosexual partners of IV drug abusers. That's one area of real concern.

Q Dr. Bowen, you made the statement that you don't feel that the disease is spreading wildly among heterosexual people and that you want to dispell a feeling of panic. Considering that you just admitted you don't have good numbers, arent' you afraid that that might pass along a message of false security?

SECRETARY BOWEN: No, I don't think so, simply because the sole scientific evidence shows that AIDS is hard to get. You have to -- the only way that you're going to get it is through the use of shared dirty needles or through promiscuous homosexual activities or being born of a mother who has it.

Q But heterosexual people can get it through sexual contact, too.

SECRETARY BOWEN: I'm sorry, I didn't get it.

Q Heterosexual people can get the disease.

SECRETARY BOWEN: Yes, they can get the disease. But the educational efforts are being effective, we think, in those particular areas -- not as effective as we'd like, but they are being effective and, as I said, AIDS is hard to get, and one, with just the proper education on it and has the proper amount of fear that one should have with the disease, is not going to get it.

Q Would you say then that under certain groups or populations that the disease is coming under control? Do you feel confident in saying that? How effective are your education efforts? Do you have any numbers?

SECRETARY BOWEN: I'm going to defer to Dr. Mason on that question, but the statistics do not show that it is wildly spreading and that it is preventable and that we are devoting a tremendous amount of efforts for education and information, and that's the only means of prevention that we have at the present time. And I'll let Dr. Mason answer any statistics that he has on that. I don't know.

DR. MASON: Well, I would just say that over a billion dollars is being spent at the federal level for research and for education, information and disease control activities, and it -- we really don't have the data sets that will enable us to precisely measure how well we're bringing the disease under control. That's one of the things that we talked about -- why we want to put all of those surveys into place.

But what our data does show us, as imprecise as it is, is that the disease is not spreading wildly through the United States

population, but it is spreading in those groups that continue to participate in behaviors that transmit the virus. And there is no change -- the IV drug abuse needle is as infectious in the United States today as it was four or five years ago.

Q Dr. Bowen, the timetable here in the book indicates that a national survey would be concluded in June, 1990. Isn't that an embarrassingly long time, a. And, b, what's the price tag on this huge survey?

SECRETARY BOWEN: It's a lot longer than we would like, but it's been said, if you want a report bad, you may get it bad, and we are going to stick to the timetable that will get scientifical useful information and not information that will be harmful. We are looking --

Q Price? What is the price tag?

SECRETARY BOWEN: Do you have a price tag on it? I don't know.

DR. MASON: The price tag for the pilot phases of the national seroprevalence surveys are in the range of \$5 million. For the family of surveys, the 30 standard metropolitan statistical areas, we're talking about a range of \$30 million for that kind of information. The time -- we would like to speed that up as rapidly as we can. But, just as Dr. Bowen has said, to get good data, you have to go through the contracting process. The contractor has to have time to develop a protocol. Each phase has to be phased in, even though we can fast track some of this. And if any of you have suggestions or know of people who have suggestions on how we can carry out a scientifically valid survey faster than that, we'd love to sit down and talk with you.

Q Can I follow up on that?

Q You start it sooner. Why wasn't it started sooner -- (laughter) -- no money? No, seriously, I'm not kidding.

DR. MASON: No, it wasn't a matter of money. The surveillance systems were first put into place in 1981. As time has gone on, one by one they've been put into place and improved and expanded. We didn't even have a test until 1985. And then for a long period of time there was concern about the validity of the test — false positives, false negatives.

And so, now that we've had experience with the test -including both the ELISA and the Western Blot -- we know that when
these tests are carried in qualified, well-controlled laboratories
that the number of false positives are exceedingly low. We will get
some false negatives but we won't get a lot. And so we feel that the
state of the art of our science has now reached the point where one
can begin to do this kind of careful, seroprevalence data collection.

Q Dr. Bowen --

Q Dr. Bowen, is there anything in what you're reporting today that decreases the need and the pressure for more federal dollars for research or anything that the Feds are now spending money for? Is there less need to spend money because of what you found out and reported today?

SECRETARY BOWEN: No, I don't think there's any less need. And the need for money may be pretty flexible simply because you don't know which experiment is going to be the one that brings on the vaccine or which one is going to bring on the new medications, which will then need a -- perhaps a great deal more money to further develop it. I don't think money is going to be the problem, simply because this administration and everyone in Congress that I've talked to is -- are all willing to do whatever is necessary -- financially

and otherwise -- to control the epidemic.

Q If I may follow up, sir -- one of the persistent criticisms down through the years has been the reluctance to spend money -- particularly early on. I think some people are going to say, well, if they're lowering the estimates -- if they're saying that the previous estimate was high, well, they're going to pull back on some of the money. Are you saying you're not going to do that?

SECRETARY BOWEN: Well, it's not our intention to, no.

### O Dr. Bowen --

Q Are you lowering the estimates, in fact? Is that what you're doing? And why do make a distinction between the spread in some groups and the other? Isn't it just as serious a problem among homosexuals and intervenous drug users as it is among heterosexuals? Why does it matter that among some groups it's not spreading? And how can you say that if you don't have the numbers?

DR. MASON: Well, I don't think any of us want to imply in any way that we have precise data. And that's exactly why the family of surveys and the pilot studies for the random household survey will be done. So I don't want any of you to overread what we're saying. And I hope you'll read the report because we've been very, very careful and conservative in there.

The work needs to go on in all people who have -- who are engaging in risky behavior. It doesn't matter whether they're heterosexual, whether they're IV drug abusers, whether they're homosexual or bisexual men. We are not saying for a moment that any of that needs to stop.

CDC was asked to do a scientific assessment to -- based upon data available in November, 1987. What is our best estimate of the number of people infected? And we delivered that best estimate to the Domestic Policy Council today. And there was no pressure or any way -- one way or the other. They simply wanted the best estimate of how many we felt were infected and that was the driving force behind the number. And we don't need to relax -- we shouldn't relax any of the efforts that we're carrying out to get this epidemic out -- under control.

We're not saying that it's under control. We're saying it's not spreading like wildfire. And we can be relieved about that, but it means that we've got to continue all the effort that have been going on in the past. Research, education, information, the testing and counseling -- all of those things -- the right mix of those. And information that we've provided today provides us with where we need to target more resources. Some areas we may not be needing to spend as much as we have been. In other words, instead of shotgun blasts out there, the more precise we can be about in which populations it's spreading, where it seems to be getting under control, we can do a more intelligent job with better intelligence in getting at this epidemic.

### Q How many --

Q Okay, Dr. Bowen, rather than tackling the issue of education, critics would charge that once again the administration is talking about more testing. Could you respond to that? Are you really -- where is our national education program? Why haven't we mailed out the Surgeon General's report?

SECRETARY BOWEN: There's been over eight million copies, I believe, of the Surgeon General's report already mailed out. Every congressman has the opportunity to obtain as many copies as he or she desires. And some of them have asked for as high as 250 thousand copies to be mailed door to door. Our federal responsibilities on

AIDS, it seems to me, are three or four. Number one is to do the basic research.

There is a lot of other research being done out there in the private areas, but the basic research on the virus itself and on the epidemiology, how it is spread and so forth. The second is to do research on the development of drugs to kill the virus, drugs to stimulate the body's immunity and more drugs to help cure the opportunistic diseases that come along with AIDS. And then the big one that we are working hard and fast on, but it has a date in the future for completion, is the vaccine. And you have to remember, it took 17 years to develop a vaccine for hepatitis, and here we have only known about this virus of AIDS for two years. It took — we know as much about AIDS in the few years that we have known of the disease as we knew about polio in 40 years. So I think that we've have made tremendous progress.

Another thing the federal government needs to do is to develop the educational and informational material and then get it disseminated to the areas all over the country.

Q Dr. Mason, Dr. Bowen, how do you characterize, sir, the spread among the high risk groups. A while ago you said it is not spreading like wildfire through the general population. How is it spreading in the high risk groups? What is -- how do you characterize that?

SECRETARY BOWEN: It is spreading simply because of the high risk behavior in those groups.

Q How is it spreading, sir? Is it spreading fast, faster or less fast than it was 18 months ago?

SECRETARY BOWEN: I think the statistics remain just about the same. I don't think there has been any great -- and correct me if I am wrong on this -- but the homosexual community has listened to the educational efforts, perhaps better than those in the IV drug use. But again, the IV drug users are the one that are the very, very hardest to reach. And simply because if they have an addiction and they are in need of a fix, they could care less about AIDS at that particular time. So that is essentially the reason that it is continuing to spread there.

Q Dr. Bowen, you just mentioned drug development as the responsibility of the federal government, and yet Admiral Watkins just told us that drug development is going to be one of the four things the Commission is going to devote -- it was a top priority, because so many people with AIDS believe the drugs are not being developed and the cures are not being developed. As the person who oversees both the National Institutes of Health and Food and Drug Administration, would you disagree with that as something the Commission should be looking at? Do you stand by the process as it is now?

SECRETARY BOWEN: Oh, I think the Commission has every right to say that that is one of the main things they need to look at. But I think it is just simply a perception, if that be the case, that the federal government is not doing all it can to develop drugs. They are, believe me they are.

Q Is it a good process or are there improvements to be made in the drug approval process?

SECRETARY BOWEN: Well, we've made tremendous improvements in the entire drug approval process, but there has been extensive improvements in speeding up in the method by which drugs for the treatment of AIDS will be authorized and you can just look at the action on the AZT for that, and certainly all other drugs that show promise of efficacy and safety for the treatment of either the AIDS virus or the opportunistic diseases will be treated in the same

fashion that AZT was.

- Q Dr. Bowen, how does --
- Q Dr. Mason, how does the house-to-house survey work, and the confidentially -- the pilot program for the house-to-house? Obviously that's different from the hospitals --

DR. MASON: The question is about the random household survey -- how will it work with regard to confidentiality? We will never identify that individual. They'll be given a code number so that they can call in to get the result of their test, but there's no way that we could go back to identify that individual after information is collected.

Q They're going to go to the house and --

Dr. MASON: It will be -- as it's designed to be -- random household survey to try to be as representative of the United States population as you possibly can. That's the only way that you really can find out how many there are infected in the United States of America -- is do a random survey, and of course the Gallup Poll or one of those other polls -- they telephone 600 or so. But with AIDS, since you're working with particular people, you're going to have to over-sample. In so many populations, it becomes very difficult. And then to get statistical significance, you've got to have an appropriate number. And if a lot of the people won't respond -- for example, those that were higher risk for AIDS didn't respond, then you'd under count the infections and you'd come up with a very falsely low number, and that's the last thing we want. And that's the reason for the pilot studies -- to make sure that you can do it accurately enough to make it worthwhile doing it.

MS. ARSHT: We'll take one last question.

Q What cities --

Q Dr. Bowen, Admiral Watkins, when he was here earlier, said that he thought that AIDS was the most significant infectious disease the nation has ever faced. Considering the discussions we've had about numbers, do you agree with that?

SECRETARY BOWEN: Yes, I would agree with it simply because of the things that it involves. It involves sex, it involves reproduction, it involves drugs, it involves lifestyles, it involves minorities and so forth, so I think that -- sure, it would have to be considered one of the most significant diseases that has ever come along.

Q He didn't say, "one of the," he said, "the most."

SECRETARY BOWEN: Okay, I'll even buy that.

THE PRESS: Thank you.

4:10 P.M. EST

### Human Immunodeficiency Virus Infections in the United States: A Review of Current Knowledge

James O. Mason, M.D., Dr.P.H. Director, Centers for Disease Control

### BACKGROUND

Transmission of human immunodeficiency virus (HIV) infections in the United States can be slowed or halted by reducing or eliminating the behaviors that place individuals at risk of acquiring HIV infection.

Over 46,000 cases of acquired immunodeficiency syndrome (AIDS) have been reported to CDC since 1981 as part of a national surveillance program. Although AIDS occurs as the result of HIV infection, the mean interval from infection with HIV to the onset of AIDS exceeds seven years. Information on the number of currently infected individuals (prevalence) and the rate at which new HIV infections occur over time (incidence) is vital to monitoring the progression of the HIV epidemic.

More precise and more consistently collected data on the prevalence of HIV infection remain to be collected for individuals whose behavior places them at increased risk and for the general population. Better and more extensive information is essential for targeting and evaluating control and prevention efforts at local and State level, for predicting future health care needs, and for understanding where the HIV and AIDS epidemic is headed. Better models which make use of the specific data will also aid in our understanding of the spread of this virus. Surveillance of the prevalence and incidence of HIV infection by continually monitoring sentinel populations and expanding focused seroprevalence surveys and studies, and developing models to help interpret the data remains a critical element of the Nation's response to this major public health crisis.

### HIV IN THE UNITED STATES: CURRENT KNOWLEDGE

In October 1987, an epidemiological team from the CDC, with assistance from the National Institute on Drug Abuse (NIDA)/Alcohol, Drug Abuse and Mental Health Administration (ADAMHA) and the National Institutes of Health (NIH), conducted an intensive review of published and unpublished data on the extent and trends of infection with HIV in the United States. While the various surveys and studies differ in design and cannot be precisely compared, nevertheless a description of the approximate patterns and trends of HIV infection is useful.

Infection in Groups at Recognized Risk. Observed prevalence of infection remains highest in those groups which account for the vast majority of AIDS cases.

Seroprevalence in homosexual and bisexual men in 50 surveys and studies throughout the country ranges from under 10 percent to as high as 70 percent, with most findings falling between 20 percent and 50 percent.

In 88 surveys and studies, observed HIV prevalence varies more widely for intravenous drug abusers, ranging from highs of 50 to 65 percent in the New York City vicinity and Puerto Rico to rates which vary but which are mostly below 5 percent in areas other than the East Coast.

Persons with coagulation disorders requiring clotting factor concentrates (hemophiliacs) vary in HIV prevalence depending on type and severity of the disorder—approximately 70 percent overall for hemophilia A and 35 percent for hemophilia B—but the prevalence rates appear uniform throughout the country, reflecting the national distribution of the clotting factor concentrates.

Heterosexual transmission of HIV clearly occurs. The prevalence in regular heterosexual partners of infected persons ranges from under 10 percent to 60 percent, while in partners of those at risk but of unknown HIV status the prevalence is lower, generally under 10 percent.

Infection in Groups Drawn from the General Population. In selected groups of the general population—blood donors, civilian applicants for military service, Job Corps entrants, sentinel hospital patients, and women in settings related to fertility and childbearing—HIV infection prevalence is generally a fraction of 1 percent, though seroprevalence rates vary considerably and have been found to be much higher in populations in selected inner city populations.

Persons at increased risk for HIV are asked not to donate blood and therefore prevalence and incidence rates in donor groups will under-represent the actual rates in the population. The overall prevalence of HIV antibody in Red Cross blood donors who have not been previously tested averages 0.043 percent seropositive. Applicants for military service, who under-represent persons in the principal risk groups for HIV, have a crude HIV antibody prevalence of 0.15 percent, which when adjusted to the age, sex, and race composition of the United States 17 to 59 years of age population, is 0.14 percent. Job Corps entrants, disadvantaged youths 16 to 21 years of age, thus far have a prevalence of 0.33 percent. Patients without AIDS-like conditions thus far tested anonymously at four sentinel hospitals have a prevalence of 0.32 percent, compared with a sex- and age-adjusted prevalence of 0.11 percent for military applicants from the same cities.

Childbearing women in Massachusetts, tested anonymously through filter-paper blood specimens from their newborn infants, have an HIV prevalence of 0.21 percent. This compares with 0.13 percent for female applicants for military service from the same State. The findings from surveys in womens' health clinics ranged from 0 percent to as high as 2.6 percent positive (other than in groups of pregnant drug users where the prevalence reaches nearly 30 percent). The higher prevalences occurred in areas of high AIDS case incidence in women.

Variation of HIV Prevalence by Geography, Age, Sex, and Race or Ethnicity. The geographic distribution of HIV prevalence in blood donors and applicants for military service, and to a limited extent in homosexual men and IV drug abusers, is similar to the geographic distribution of AIDS cases, being highest on the East and West Coasts and lowest in the northern Midwest and mountain States. HIV prevalence, like AIDS case incidence, is greater in urban than in rural areas. These latter areas must be monitored closely for spread of HIV infection and targeted for prevention efforts.

Like AIDS cases, HIV infection both in general population groups and high risk groups is concentrated in young to early middle-aged adults, and is consistently more common in men and in the black and Hispanic populations.

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Limited studies of exposure risks in seropositive donors as well as in seropositive military applicants and in active duty military personnel suggest that approximately 85 percent of such individuals have identifiable risks for HIV. If the risk factor data from these limited studies are found to be consistent in more extensive national studies, then HIV prevalence levels in persons without acknowledged or recognized risks would be below 0.021 percent in military applicants and 0.006 percent in blood donors. However, more extensive studies on risk factors are urgently needed, particularly in inner city areas where heterosexual HIV transmission would be predicted to occur based upon AIDS case surveillance data.

In limited studies of the highest-risk subgroup of heterosexuals, those being treated for STD, when rigorously interviewed to assess risk factors with follow-up reinterview of seropositives, the prevalence of HIV ranges generally from 0 percent to 1.2 percent in persons without specific identified risk factors. By contrast, homosexual men at the same clinics range to over 50 percent positive.

HIV Infection Trends Over Time, Incidence of New Infection. Trend and incidence information is much less available and much more difficult to develop than prevalence data.

In the two general population groups tested over time, applicants for military service and first-time blood donors, HIV prevalence rates have remained stable for two years, although the prevalence in donors has fluctuated seasonally. Increased self-deferral of persons with risk factors or who already knew they were HIV-infected may have contributed to this observed prevalence pattern, the apparent stability reflecting the competing effects of self-deferral by infected persons and the continued occurrence of new HIV infections.

There is evidence that new infections continue to occur in blood donors, in military personnel, and in groups at increased risk. However, in some groups the rate of new infection (incidence) may have declined somewhat from the rates which prevailed in the early 1980s, since 1) declines in incidence of new infections have been observed in eight cohorts of homosexual men, the current principal risk group; 2) the net seroprevalence in military applicants and donors (which rose at some time to their current levels from zero before HIV was introduced) appears no longer to be rising; and 3) serologic screening of blood products and heat treatment of clotting factor concentrates have vastly reduced new infection in transfusion recipients and hemophiliacs. However, insufficient trend and incidence data are available to evaluate recent patterns in and heterosexually active persons or in local geographic areas such as the inner cities.

The HIV and AIDS epidemic is a composite of many individual, though overlapping, sub-epidemics each with its own dynamics and time course. While the incidence of new infection in certain subgroups may have declined somewhat, in the absence of specific information, incidence rates cannot be assumed to have declined in all subgroups or in all geographic areas. It is important that trends be monitored in IV drug abusers and in heterosexually active persons as well as in localized areas such as inner cities. There is insufficient data to determine the overall incidence and trends of HIV infection.

Implications for Estimates of National HIV Prevalence. In 1986, a large group of public health and medical specialists from within and from outside the government was convened by the PHS and developed an empirical working estimate of 1 to 1.5 million infected Americans. This was based on the estimated sizes of populations at risk and the estimated average seroprevalence values for those populations. The Institute of Medicine, National Academy of Sciences reviewed and considered this working estimate reasonable. If the estimate is recomputed in light of more recent HIV seroprevalence data and newer estimates for the size of populations at risk, little net change in the estimate occurs. If the HIV prevalence rates observed in low-risk groups, or multiples thereof, are extrapolated to the entire population, the figures fall below 1 million. When several empirical mathematical models are tested using AIDS surveillance data and disease progression rates from the well-studied San Francisco cohort, the resulting estimates of total HIV infections range from 276,000 to 1,750,000, with best estimates of 420,000 to 1,649,000. Proceedures that produce such a wide range of results from the same data indicate that there are either insufficient data or insufficient models or both. Hence, there is a need for improved data and model development to assist in monitoring HIV infection in this country.

The available data and models are consistent with the PHS estimates in June, 1986. Since new infections have continued to occur during the past 17 months, this would imply that the upper range of the 1986 estimate (i.e., 1,500,000) may have been somewhat high at that time. The overall conclusion, however, is that a very large number of Americans are now

infected. The estimation of the total number of persons infected will remain complex and inexact. There is no substitute for carefully obtained incidence and prevalence data. Additional surveys and studies are needed to determine the current extent of spread of HIV through the population.

### Human Immunodeficiency Virus Infections in the United States: A Review of Current Knowledge

James O. Mason, M.D., Dr.P.H. Director, Centers for Disease Control

#### BACKGROUND

Transmission of human immunodeficiency virus (HIV) infections in the United States can be slowed or halted by reducing or eliminating the behaviors that place individuals at risk of acquiring HIV infection.

Over 46,000 cases of acquired immunodeficiency syndrome (AIDS) have been reported to CDC since 1981 as part of a national surveillance program. Although AIDS occurs as the result of HIV infection, the mean interval from infection with HIV to the onset of AIDS exceeds seven years. Information on the number of currently infected individuals (prevalence) and the rate at which new HIV infections occur over time (incidence) is vital to monitoring the progression of the HIV epidemic.

More precise and more consistently collected data on the prevalence of HIV infection remain to be collected for individuals whose behavior places them at increased risk and for the general population. Better and more extensive information is essential for targeting and evaluating control and prevention efforts at local and State level, for predicting future health care needs, and for understanding where the HIV and AIDS epidemic is headed. Better models which make use of the specific data will also aid in our understanding of the spread of this virus. Surveillance of the prevalence and incidence of HIV infection by continually monitoring sentinel populations and expanding focused seroprevalence surveys and studies, and developing models to help interpret the data remains a critical element of the Nation's response to this major public health crisis.

#### HIV IN THE UNITED STATES: CURRENT KNOWLEDGE

In October 1987, an epidemiological team from the CDC, with assistance from the National Institute on Drug Abuse (NIDA)/Alcohol, Drug Abuse and Mental Health Administration (ADAMHA) and the National Institutes of Health (NIH), conducted an intensive review of published and unpublished data on the extent and trends of infection with HIV in the United States. While the various surveys and studies differ in design and cannot be precisely compared, nevertheless a description of the approximate patterns and trends of HIV infection is useful.

Infection in Groups at Recognized Risk. Observed prevalence of infection remains highest in those groups which account for the wast majority of AIDS cases.

Seroprevalence in homosexual and bisexual men in 50 surveys and studies throughout the country ranges from under 10 percent to as high as 70 percent, with most findings falling between 20 percent and 50 percent.

In 88 surveys and studies, observed HIV prevalence varies more widely for intravenous drug abusers, ranging from highs of 50 to 65 percent in the New York City vicinity and Puerto Rico to rates which vary but which are mostly below 5 percent in areas other than the East Coast.

Persons with coagulation disorders requiring clotting factor concentrates (hemophiliacs) vary in HIV prevalence depending on type and severity of the disorder—approximately 70 percent overall for hemophilia A and 35 percent for hemophilia B—but the prevalence rates appear uniform throughout the country, reflecting the national distribution of the clotting factor concentrates.

Heterosexual transmission of HIV clearly occurs. The prevalence in regular heterosexual partners of infected persons ranges from under 10 percent to 60 percent, while in partners of those at risk but of unknown HIV status the prevalence is lower, generally under 10 percent.

Infection in Groups Drawn from the General Population. In selected groups of the general population—blood donors, civilian applicants for military service, Job Corps entrants, sentinel hospital patients, and women in settings related to fertility and childbearing—HIV infection prevalence is generally a fraction of 1 percent, though seroprevalence rates vary considerably and have been found to be much higher in populations in selected inner city populations.

Persons at increased risk for HIV are asked not to donate blood and therefore prevalence and incidence rates in donor groups will under-represent the actual rates in the population. The overall prevalence of HIV antibody in Red Cross blood donors who have not been previously tested averages 0.043 percent seropositive. Applicants for military service, who under-represent persons in the principal risk groups for HIV, have a crude HIV antibody prevalence of 0.15 percent, which when adjusted to the age, sex, and race composition of the United States 17 to 59 years of age population, is 0.14 percent. Job Corps entrants, disadvantaged youths 16 to 21 years of age, thus far have a prevalence of 0.33 percent. Patients without AIDS-like conditions thus far tested anonymously at four sentinel hospitals have a prevalence of 0.32 percent, compared with a sex- and age-adjusted prevalence of 0.11 percent for military applicants from the same cities.

Childbearing women in Massachusetts, tested anonymously through filter-paper blood specimens from their newborn infants, have an HIV prevalence of 0.21 percent. This compares with 0.13 percent for female applicants for military service from the same State. The findings from surveys in womens' health clinics ranged from 0 percent to as high as 2.6 percent positive (other than in groups of pregnant drug users where the prevalence reaches nearly 30 percent). The higher prevalences occurred in areas of high AIDS case incidence in women.

Variation of HIV Prevalence by Geography, Age, Sex, and Race or Ethnicity. The geographic distribution of HIV prevalence in blood donors and applicants for military service, and to a limited extent in homosexual men and IV drug abusers, is similar to the geographic distribution of AIDS cases, being highest on the East and West Coasts and lowest in the northern Midwest and mountain States. HIV prevalence, like AIDS case incidence, is greater in urban than in rural areas. These latter areas must be monitored closely for spread of HIV infection and targeted for prevention efforts.

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There is evidence that new infections continue to occur in blood donors, in military personnel, and in groups at increased risk. However, in some groups the rate of new infection (incidence) may have declined somewhat from the rates which prevailed in the early 1980s, since 1) declines in incidence of new infections have been observed in eight cohorts of homosexual men, the current principal risk group; 2) the net seroprevalence in military applicants and donors (which rose at some time to their current levels from zero before HIV was introduced) appears no longer to be rising; and 3) serologic screening of blood products and heat treatment of clotting factor concentrates have vastly reduced new infection in transfusion recipients and hemophiliacs. However, insufficient trend and incidence data are available to evaluate recent patterns in and heterosexually active persons or in local geographic areas such as the inner cities.

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# HUMAN IMMUNODEFICIENCY VIRUS INFECTIONS IN THE UNITED STATES

## A REVIEW OF CURRENT KNOWLEDGE AND PLANS FOR EXPANSION OF HIV SURVEILLANCE ACTIVITIES

A Report to the Domestic Policy Council

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
CENTERS FOR DISEASE CONTROL

with support from the Alcohol, Drug Abuse and Mental Health Administration and the National Institutes of Health

**December 2, 1987** 

### CHRONOLOGY OF MAJOR EVENTS SINCE 1981

1981	o CASES OF KAPOSI'S SARCOMA AND PNEUMOCYSTIS PNEUMONIA AMONG YOUNG MALES FIRST REPORTED O NATIONAL SURVEILLANCE FOR AIDS BEGUN
1982	o EPIDEMIOLOGIC EVIDENCE INDICATED THAT AIDS IS CAUSED BY AN INFECTIOUS AGENT
	o PUBLICATION OF THE FIRST AIDS GUIDELINES FOR HEALTH-CARE AND LABORATORY WORKERS o CASE OF AIDS REPORTED IN HEMOPHILIACS
	<ul> <li>AIDS CASES ASSOCIATED WITH BLOOD TRANSFUSIONS</li> <li>PHS GUIDELINES FOR PREVENTION OF AIDS IN BLOOD CENTERS AND BETWEEN PERSONS</li> </ul>
	<ul> <li>PHS EXECUTIVE COMMITTEE ON AIDS (LATER THE PHS EXECUTIVE TASK FORCE) ESTABLISHED</li> </ul>
	o TOLL-FREE NATIONAL AIDS HOTLINE ESTABLISHED
1984	O AIDS VIRUS IDENTIFIED AS CAUSE O HEAT TREATMENT OF PRODUCTS FOR HEMOPHILIACS RECOMMENDED
1985	o AIDS ANTIBODY BLOOD TESTS LICENSED
_,,,,	o SCREENING OF THE NATION'S BLOOD SUPPLY BEGUN
	o FIRST INTERNATIONAL CONFERENCE ON AIDS HELD IN ATLANTA, GEORGIA
1982 1983 1984 1985	o PRESIDENT REAGAN DIRECTED THE SURGEON GENERAL TO ISSUE A REPORT ON AIDS
	O PHS COOLFANT ACTION PLAN PUBLISHED
	o SURGEON GENERAL'S "REPORT ON AIDS" ISSUED
	<ul> <li>EXPERIMENTAL AIDS DRUG, AZT, APPROVED FOR USE AS INVESTIGATIONAL NEW DRUG</li> </ul>
	o PHS COUNSELING AND TESTING GUIDELINES PUBLISHED
1982 1983 1984 1985	o AZT (ZIDOVUDINE) LICENSED
	<ul> <li>PRESIDENT REAGAN APPROVED THE AIDS EDUCATION AND INFORMATION PRINCIPLES</li> </ul>
	o PHS AIDS INFORMATION/EDUCATION PLAN PUBLISHED
	<ul> <li>HIV COUNSELING AND TESTING IN THE PREVENTION OF AIDS EXPANDED</li> </ul>
	o PRESIDENT REAGAN CALLS FOR COMPREHENSIVE NATIONAL PROGRAM TO DETERMINE EXTENT OF HIV INFECTION
	o PRESIDENT REAGAN APPOINTED THE COMMISSION ON THE HUMAN
	IMMUNODEFICIENCY VIRUS EPIDEMIC
	<ul> <li>PRELIMINARY TESTING OF EXPERIMENTAL VACCINE IN HUMAN VOLUNTEERS BEGUN IN UNITED STATES</li> </ul>
1982 1983 1984 1985	o PRESIDENT REAGAN DECLARED OCTOBER AIDS AWARENESS AND PREVENTION

o PRESIDENT REAGAN APPROVED THE FAMILY OF SURVEYS TO DETERMINE HIV

O REVIEW OF CURRENT KNOWLEDGE ABOUT HIV INFECTION PRESENTED

PREVALENCE AND TO CONMINUE COLLECTION OF DATA

MONTH

## EXISTING SOURCES OF DATA ON AIDS CASES AND HIV INFECTION FOR NOVEMBER 30 REPORT

### National reporting of AIDS cases

### HIV serologic surveys and studies in high risk and general population groups

STD clinics

Drug treatment centers

Hemophilia treatment centers

Heterosexual partners of persons at high risk

Cohorts of homosexual men

**Prisons** 

**Prostitutes** 

Women's health clinics

Sentinel hospitals

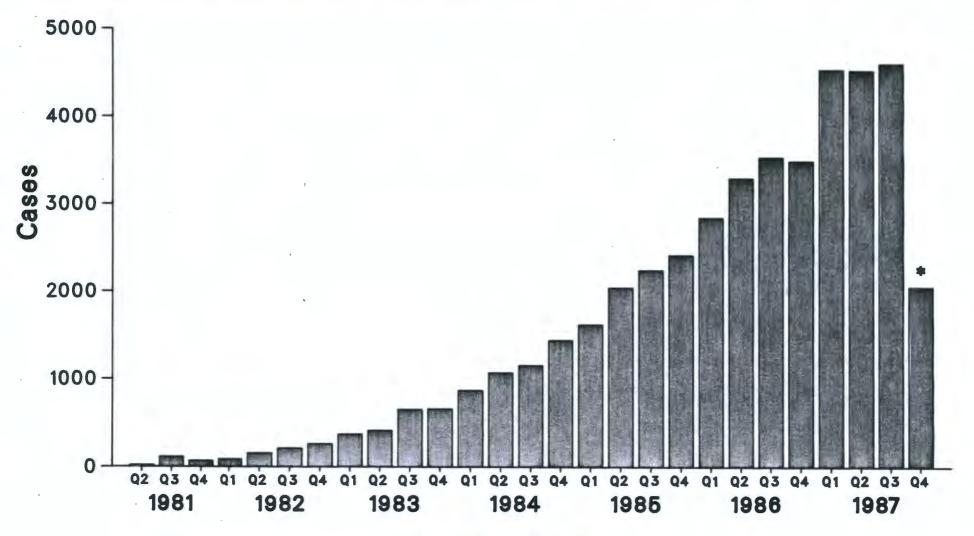
**Blood donors** 

Civilian applicants for military service

Job Corps entrants

Newborn screening (Massachusetts)

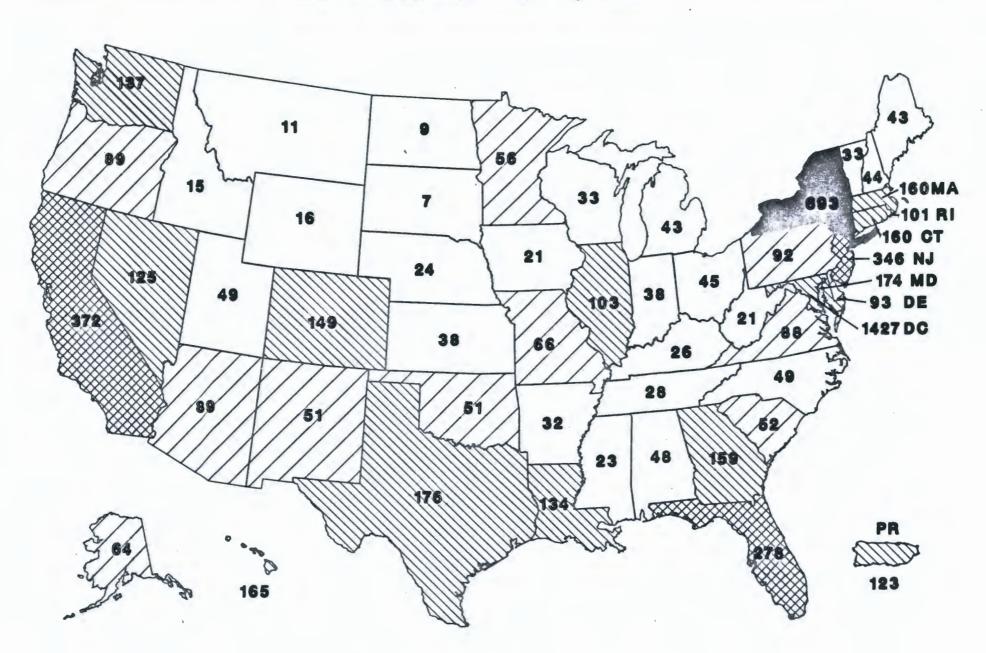
# Cases of AIDS in the United States by Quarter of Report to CDC, November 2, 1987



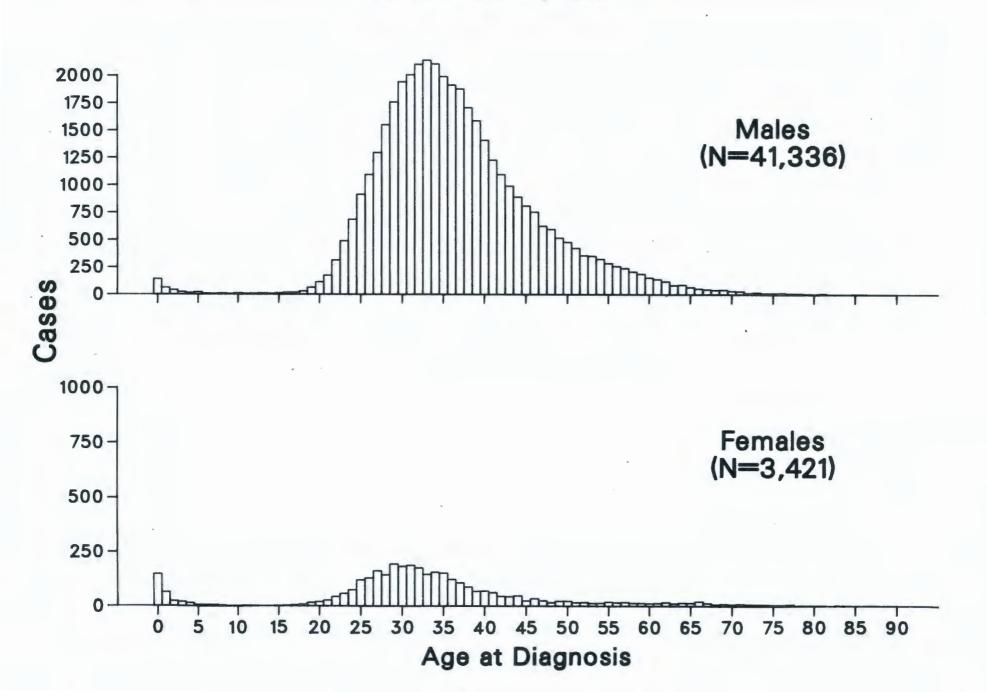
**Quarter of Report** 

<sup>\*</sup>Reporting for the fourth quarter of 1987 is incomplete.

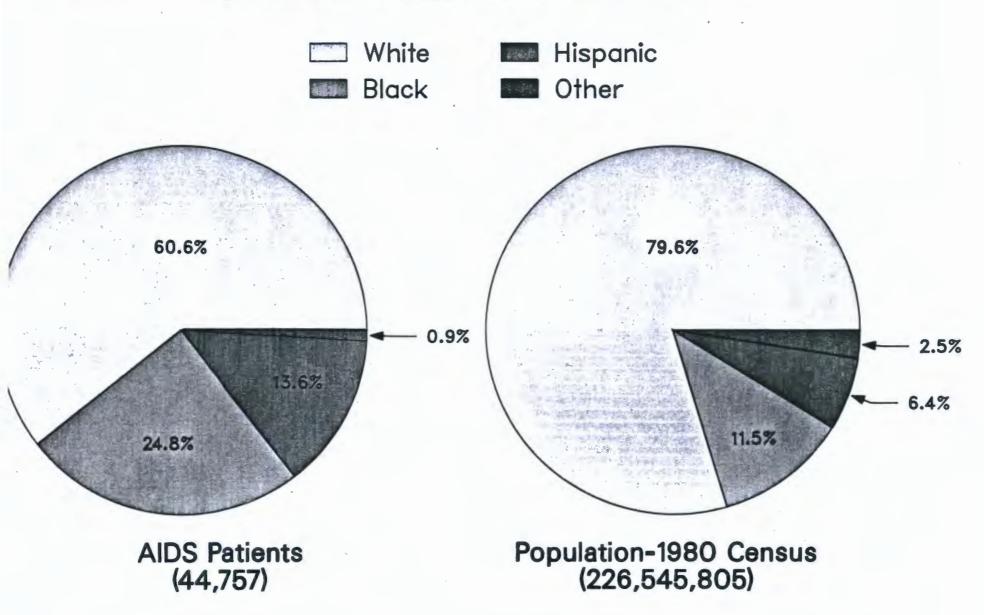
# Incidence of AIDS Cases by State, Per Million Population as of November 2, 1987



#### Cases of AIDS by Age and Gender, United States November 2, 1987



### Comparison of U.S. AIDS Patients and the U.S. Population by Race/Ethnicity, November 2, 1987

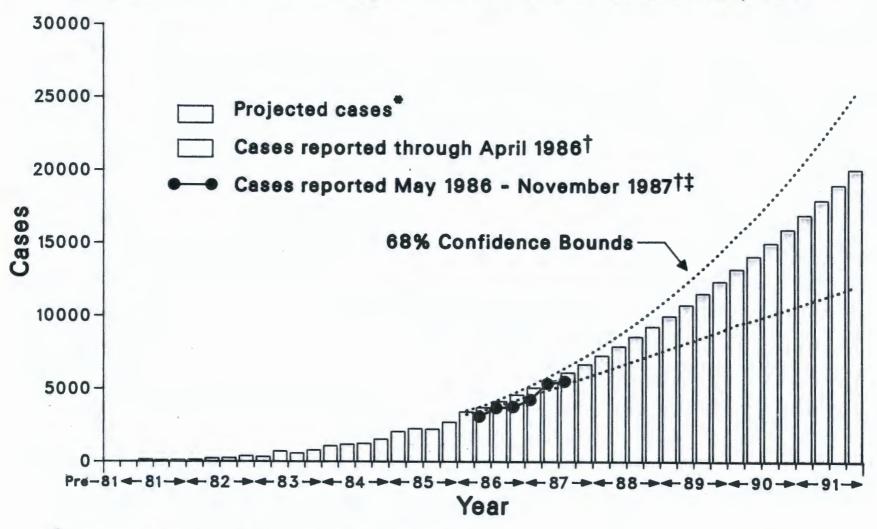


### Adult Cases of AIDS, by Transmission Category United States, November 2, 1987

(N=44,129)Transmission Category: Homosexual/Bisexual Men\* (73.7%) IV Drug Users (16.4%) Hemophiliac Coagulation Disorder (0.9%) Heterosexual Contact (3.9%) Transfusion Associated (2.1%) Other/None of the Above (3.0%)

\*10.2% of homosexual/bisexual men reported having used IV drugs.

## Cases of AIDS in the United States, by Quarter-Year Projected from Cases Reported as of April 30, 1986 and Shown with Cases Reported as of November 24, 1987



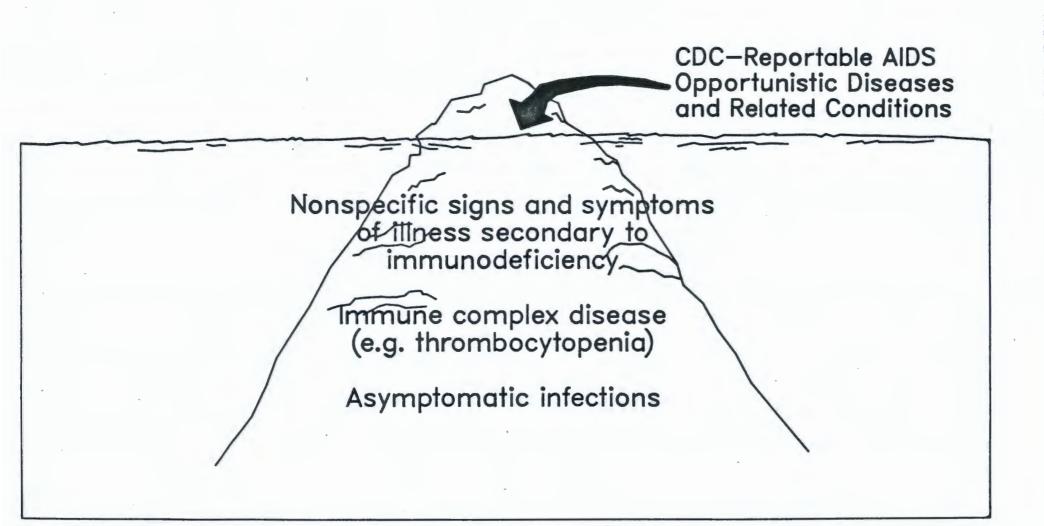
<sup>\*</sup>Projected cases are by quarter of diagnosis.

<sup>†</sup>Reported cases are by quarter of report, lagged two months to account for reporting delays.

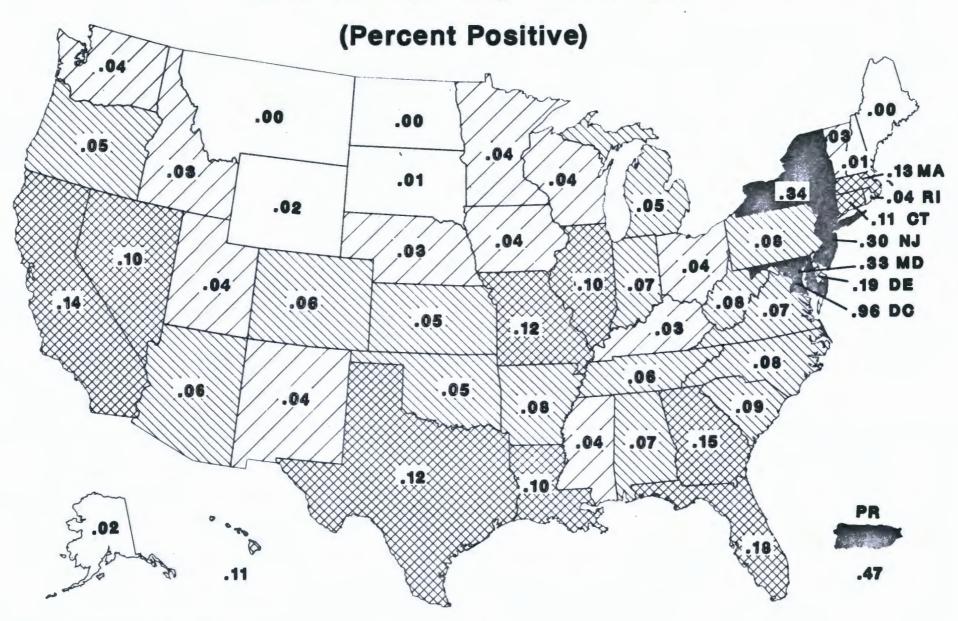
<sup>‡</sup>Reporting for the final quarter is incomplete; total includes 1,320 cases reportable only under the revised AIDS surveillance definition.

### The Clinical Spectrum of HIV Infection

"lceberg"

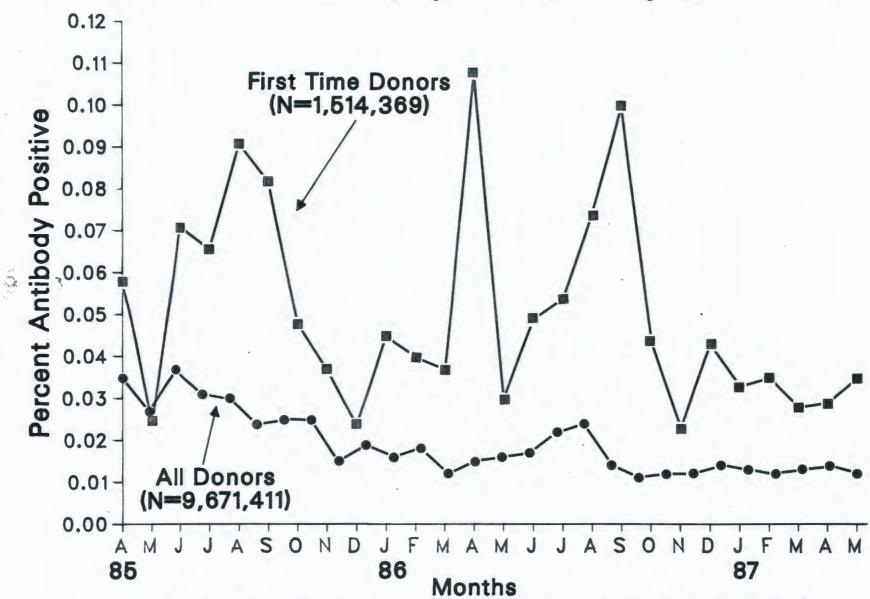


Sex-Adjusted for Population of Age 17-59 Years, by State
October 1985 - September 1987



Source: Department of Defense

#### HIV Prevalence Among Red Cross Blood Donors, United States, April 1985 - May 1987

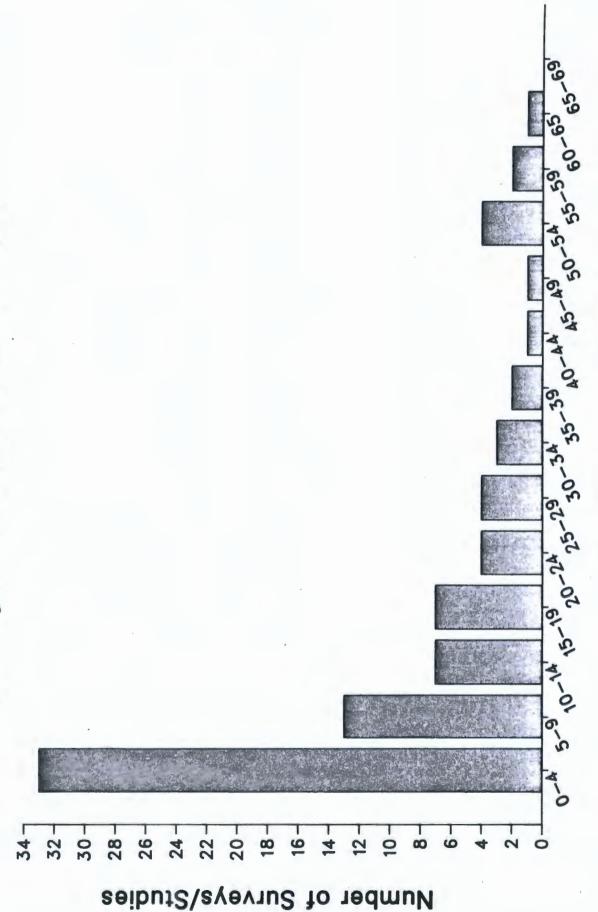


Source: American Red Cross, centers with data available since April of 85

HIV Antibody Prevalence in Homosexual and Bisexual Men 1987 Surveys and Studies 1984 -\$ 10 107 8 9 5 30 2-6 Number of Surveys/Studies

HIV Seroprevalence (percent)

HIV Antibody Prevalence in IV Drug Users Surveys and Studies 1984 - 1987



HIV Seroprevalence (percent)

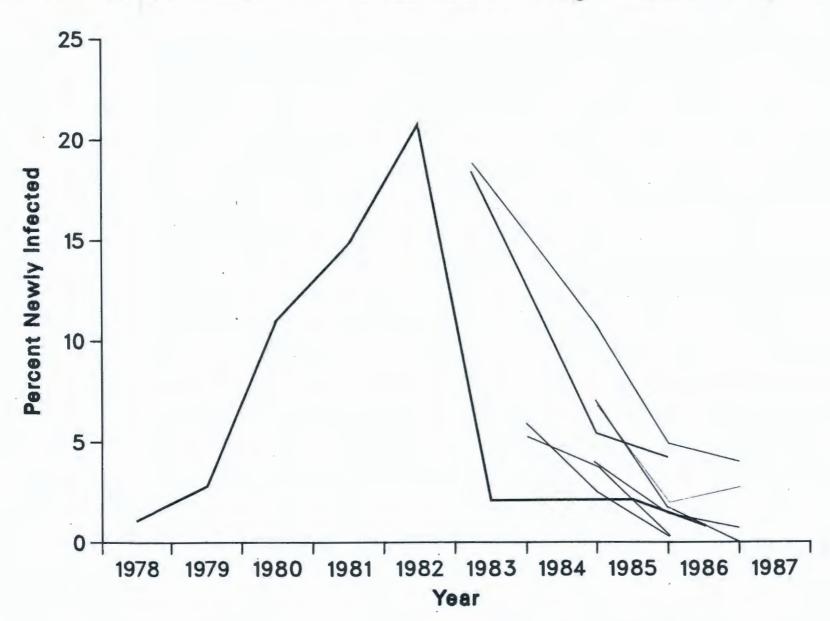
### RELATIVE RISKS FOR AIDS AND RELATIVE RATES OF HIV INFECTION PREVALENCE FOR BLACKS AND HISPANICS COMPARED TO WHITES

STUDY GROUP	BLACKS COMPARED TO WHITES	HISPANICS COMPARED TO WHITES
AIDS Cases <sup>1</sup>		
All AIDS cases	3 to 1	3 to 1
AIDS in heterosexuals	12 to 1	9 to 1
AIDS in heterosexual		
IV drug users	20 to 1	21 to 1
AIDS in female partners		
of IV drug users	23 to 1	29 to 1
AIDS in children of		
IV drug users	25 to 1	17 to 1
HIV Infection <sup>2</sup>		
Military applicants	7 to 1	3 to 1
Blood donors	12 to 1	3 to 1
Sentinel hospitals	3 to 1	
Homosexual/bisexual men	3 to 1	
IV drug users	4 to 1	3 to 1

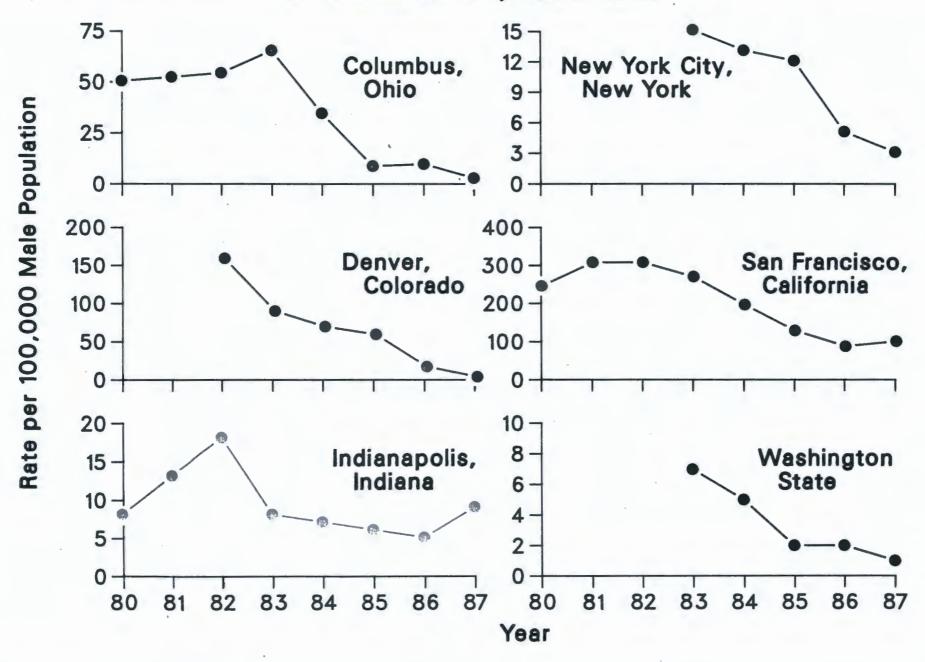
Relative risks of reported AIDS cases based on 1980 U. S. Census data.

Relative rates of HIV seroprevalence in surveyed persons.

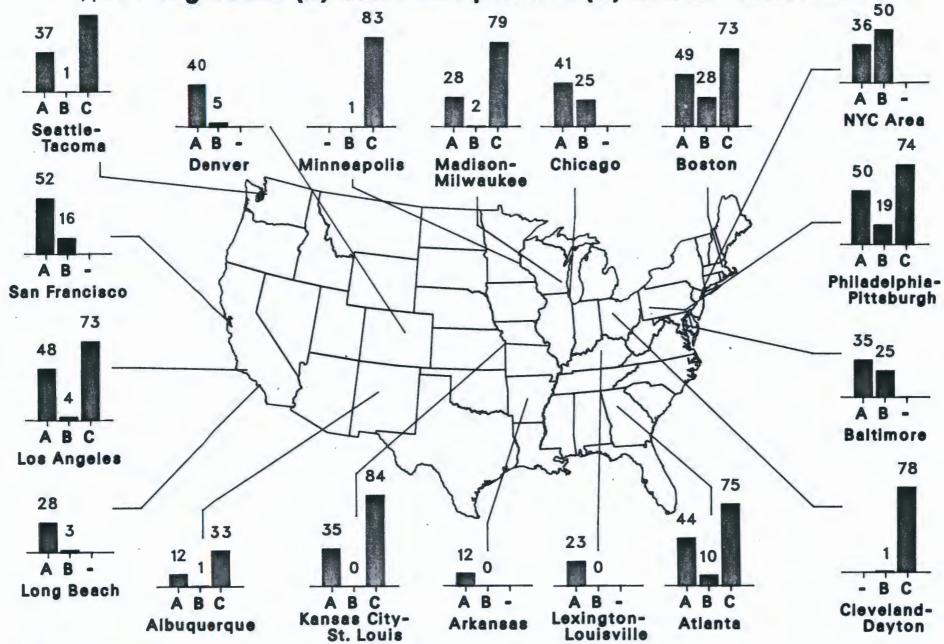
#### HIV Incidence in Cohort Studies of Homosexual Men, Percent of Uninfected Men Becoming Infected, by Year



#### Rates of Primary/Secondary Syphilis in Homosexual Men Selected Sites, 1980-1987



HIV Seroprevalence\* (Percent Positive) in Homosexual Men (A), 71 IV Drug Users (B) and Hemophiliacs (C) in Selected Areas



<sup>\*</sup>Approximate averages from multiple recent studies.

#### SUMMARY OF OBSERVED HIV SEROPREVALENCE IN HIGH RISK AND GENERAL POPULATIONS

POPULATION	HIV SEROPREVALENCE	
High risk		
Homosexual and bisexual men	20-50% (typical range)	
IV drug users	2-60% (highly variable depending on geographic area)	
Hemophiliacs	8-18-17-1	
hemophilia A	70%	
hemophilia B	35%	
Heterosexual partners of HIV-infected persons	10-60%	
General population		
Blood donors (first-time tested)	0.043%	
Military applicants (age-, sex-, race-adjusted)	0.14%	
Job Corps entrants	0.33%	
Sentinel hospital patients	0.32%	
Childbearing women (Massachusetts statewide)	0.21%	

### PUBLIC HEALTH SERVICE ESTIMATE OF HIV PREVALENCE IN THE UNITED STATES BY POPULATION GROUP, 1986

POPULATION	ESTIMATED SIZE	APPROXIMATE SEROPREVALENCE	TOTAL INFECTED
Exclusively homosexual throughout life <sup>1</sup>	2,500,000	15%-20%	375,000-500,000
Other homosexual contact <sup>1</sup>	2,500,000- 7,500,000	10%	250,000-750,000
Regular (at least weekly) intravenous drug abuse <sup>2</sup>	750,000	30%	225,000
Less frequent IV drug use <sup>2</sup>	750,000	10%	75,000
Persons with hemophilia <sup>3</sup>	14,000	70%	10,000
Other groups (transfusion recipients, other heterosexuals, infants)	7	?	?
Total			1,000,000-1,500,000

Kinsey, et al: <u>Sexual Behavior in the Human Male</u>, Philadelphia, Sauders Publishing Co., 1948; and U.S. Census data, 1980.

National Institute on Drug Abuse (personal communication), 1986.
 National Hemophilia Foundation (personal communication), 1986.

### • REEVALUATED PUBLIC HEALTH SERVICE ESTIMATE OF HIV PREVALENCE IN THE UNITED STATES BY POPULATION GROUP, 1987

POPULATION	ESTIMATED SIZE	APPROXIMATE SEROPREVALENCE	TOTAL INFECTED
Exclusively homosexual throughout life <sup>1</sup>	2,500,000	20-25%	500,000- 625,000
Other homosexual contact including highly infrequent <sup>1</sup>	2,500,000- 7,500,000	5%	125,000- 375,000
Regular (at least weekly) intravenous drug abuse <sup>2</sup>	900,000	25%	225,000
Occasional IV drug use <sup>2</sup>	200,000	5%	10,000
Persons with Hemophilia A <sup>3</sup> Persons with Hemophilia B <sup>3</sup>	12,400 3,100	70% 35%	8,700 1,100
Heterosexuals without specific identified risks	142,000,000	0.021%4	30,000
Subtotal			900,000-1,270,000
Other groups (heterosexual partners of persons at high risk, heterosexuals born in Haiti and Central Africa, transfusion recipients, other)	additional 5-10% of total number of infections <sup>4</sup>		45,000- 127,000
Total			945,000-1,400,000

Kinsey, et al: <u>Sexual Behavior in the Human Male</u>, Philadelphia, Sauders Publishing Co., 1948; and U.S. Census data, 1980.

See Text (VIII. A.).

National Institute on Drug Abuse (personal communication), 1987; excludes persons who have used drugs only once or twice.

Host Factors Div., CDC, and National Hemophilia Foundation (personal communication), 1987.

# PERSONS INFECTED WITH HIV AT THE END OF 1987, UNITED STATES, ESTIMATED<sup>1</sup> FROM REPORTED AIDS CASES, BY RATE OF DISEASE PROGRESSION AND ASSUMED INFECTION CURVE

(with 95% confidence bounds in parentheses)

#### Rate of Disease Progression<sup>3</sup>

ASSUMED INFECTION CURVE 2	SLOWEST PROGRESSION	MOST LIKELY PROGRESSION RATE	FASTEST PROGRESSION
Logistic	420,000*	420,000*	420,000*
	(403,000- 438,000)	(312,000- 528,000)	(268,000- 572,000)
Log-logistic	1,363,000 <sup>*</sup>	853,000 <sup>*</sup>	276,000*
	(918,000-1,809,000)	(186,000-1,519,000)	( 66,000- 511,000)
Damped-Exponential	1,750,000	1,649,000*	1,468,000*
	(576,000-2,936,000)	(566,000-2,732,000)	(556,000-2,380,500)

chi-square goodness-of-fit p.>50

#### Notes:

Each of the estimates for the number infected has been increased by 20% to account for unreported or unrecognized AIDS cases.

See text (VIII.C.) for discussion of limitations of each curve.

Data for disease progression are taken from a study of infected homosexual men in San Francisco. The lower 95% confidence estimate (slowest progression rate) for the cumulative number of men developing AIDS after each of 1-11 years was taken as 0%, 0%, 0%, 2%, 5%, 9%, 17%, 21%, 26%, 31%, 36%; the best estimate (most likely progression rate) was taken as 0%, 0%, 2%, 5%, 10%, 15%, 24%, 30%, 36%, 42%; and the upper estimate (fastest progression rate) was 0%, 0%, 4%, 8%, 15%, 21%, 31%, 39%, 46%, 52%, 58%. The rates for years 8-11 were not taken directly from the San Francisco data but were extrapolated from prior years.

#### COMPREHENSIVE HIV SURVEILLANCE

	TARGET DATE	NUMBER TESTED ANNUALLY
National Household Seroprevalence Survey		
Pilot Studies		
Planning started	6/12/87	
Completed	4/30/89	3,800#
National Household Survey		
Recommendations to proceed or not	5/15/89	More than 50,000#
Completion	6/30/90	
Family of Surveys		
Sentinel Surveillance in 30 SMSAs*		
Sentinel hospitals	4	
Sexually transmitted disease clinics		
Drug abuse clinics		
Tuberculosis clinics		
Childbearing women/newborns		
Family planning clinics		
Plan presented to Domestic Policy Council	9/16/87	
All operational	5/30/88	1,600,000
Special Ongoing Studies		
Childbearing women/newborns		
Military applicants		
Military active duty		
Job Corps		
Blood donors		
Prisons		
College students		
Homosexual/bisexual cohort		
National Health and Nutrition Examination Survey		
National Health Interview Survey		
Clinical specimens		
Emergency rooms	6100100	7 700 000
All Studies Operational	6/30/88	7,700,000

One time testing only. Other surveys will be ongoing in order to derive incidence (new infection) data.

Standard Metropolitan Statistical Area (SMSA)