

1924

USE OF NARCOTICS IN THE UNITED STATES

HEARING

BEFORE

THE COMMITTEE ON PRINTING UNITED STATES SENATE

SIXTY-EIGHTH CONGRESS

FIRST SESSION

ON

S. Con. Res. 10

A RESOLUTION TO PRINT FIFTY MILLION ADDITIONAL
COPIES OF AN ARTICLE ENTITLED "THE PERIL
OF NARCOTICS—A WARNING TO THE PEOPLE
OF AMERICA," BY THE INTERNATIONAL
NARCOTICS EDUCATION ASSOCIATION

JUNE 3, 1924

Printed for the use of the Committee on Printing



WASHINGTON
GOVERNMENT PRINTING OFFICE

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COMMITTEE ON PRINTING

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II

JUNE 2, 1904



WASHINGTON
GOVERNMENT PRINTING OFFICE

1904

USE OF NARCOTICS IN THE UNITED STATES

WEDNESDAY, JULY 12, 1906

UNITED STATES SENATE
COMMITTEE ON EDUCATION
AND LABOR

The committee has, pursuant to a resolution of the Senate, passed on July 11, 1906, in the Senate Chamber, Senate Chamber, U. S. Capitol Building, Washington, D. C., the following report:

Present, Senators Messrs. Aldrich, Chandler, Dyer, Fletcher, Russell, and Sherman.

The CHAIRMAN, Senator Dyer, has taken the chair and has read a statement by the committee.

A report of the committee on the use of narcotics in the United States, with a list of names of persons who have been convicted of the crime of selling or giving away opium, and a list of names of persons who have been convicted of the crime of selling or giving away opium, and a list of names of persons who have been convicted of the crime of selling or giving away opium.

CONTENTS

Statement of—	Page
Hon. Richmond Pearson Hobson.....	4
Hon. John J. Kindred.....	6
Hon. John W. Summers.....	14
Hon. Henry Rainey.....	21
Dr. Lawrence Kolb.....	22
Mr. Edwin L. Neville.....	53

USE OF NARCOTICS IN THE UNITED STATES

TUESDAY, JUNE 3, 1924

UNITED STATES SENATE,
COMMITTEE ON PRINTING,
Washington, D. C.

The committee met, pursuant to call of the chairman, at 2.30 o'clock p. m. in the committee room, Capitol, Senator George H. Moses, chairman.

Present: Senators Moses (presiding), Capper, Pepper, Fess, Fletcher, Ransdell, Bruce, and Shipstead.

The CHAIRMAN. Senator Bruce has asked me to count him for a quorum and to vote for him.

A quorum of the committee being present, the committee will come to order. This is a special meeting of the committee called for the consideration of Senate Concurrent Resolution 10, introduced by the Senator from Kansas, Senator Capper.

Resolved by the Senate (the House of Representatives concurring), That there shall be printed as a Senate document an eight-page article entitled "The peril of narcotics—a warning to the people of America," by the International Narcotics Education Association, and that 50,000,000 additional copies shall be printed, of which one-half shall be for the use of the Senate and one-half for the use of the House of Representatives.

Following the practice of the committee, the clerk of the committee sent the manuscript as originally submitted to the committee to the Public Printer for an estimate. In the meantime a revised copy of the article has been submitted, but I understand that the revision made no change in the length of it. The chairman also submitted the transcript to the Federal Narcotics Control Board for an opinion, which has been rendered in writing, signed by the representatives on behalf of the Treasury Department, the Department of Commerce, and the State Department. The estimate as sent from the Government Printing Office is as follows:

JUNE 3, 1924.

MY DEAR SENATOR: In response to telephone request from your office, I am pleased to submit the following statement in regard to the proposed printing of 50,000,000 copies of the document entitled "Habit Forming Narcotics":

50,000,000 copies on newsprint paper.....	\$161,001.24
50,000,000 copies on machine-finish paper.....	183,771.24

In addition to the above cost of printing the document, 50,000,000 envelopes for mailing the same will cost \$147,539.95.

It is estimated that the printing of 50,000,000 copies of the document will require the operation of one web press for 250 days running eight hours per day. With the vast amount of other important work ahead of us, this office could not place more than one press on the job, except at the delay of other printing urgently required for the transaction of the public business.

The printing of 50,000,000 copies of the document will require approximately 885,500 pounds of paper, equaling about 20 carloads.

Respectfully,

GEORGE H. CARTER, *Public Printer.*

HON. GEORGE H. MOSES,

*Chairman Senate Committee on Printing,
United States Senate, Washington, D. C.*

And the committee is here this afternoon to hear Captain Hobson in behalf of the adoption of the resolution, Captain Hobson being the author, as the Chair understands it, of the article in question. We will hear you, Captain Hobson.

Senator PEPPER. May I inquire, Mr. Chairman, whether that estimate includes the cost of handling that number of documents through the mails?

The CHAIRMAN. No; we never get that sort of an estimate.

Senator RANDELL. May I ask what was the substance of the report from the Federal Narcotics Control Board; not the whole of it, but the substance of it?

The CHAIRMAN. It was not favorable. The representatives of the board are here to be heard on it. However, if you wish it, I can read it into the record.

Senator SHIPSTEAD. What board is that?

The CHAIRMAN. The Federal Narcotics Control Board, made up of the Secretary of the Treasury, the Secretary of Commerce, and the Secretary of State, and they are represented on the board by representatives from those departments.

The letter or report from them is as follows:

FEDERAL NARCOTICS CONTROL BOARD,
(SECRETARY OF STATE, SECRETARY OF THE TREASURY, SECRETARY OF COMMERCE),
Washington, D. C., May 27, 1924.

HON. GEORGE H. MOSES,

*Chairman Committee on Printing,
United States Senate, Washington, D. C.*

MY DEAR SENATOR: Receipt is acknowledged of your letter of May 24, 1924, inclosing a copy of Senate Concurrent Resolution 10 introduced by Senator Capper, providing for the printing of 50,000,000 copies of an article entitled "The Peril of Narcotics," by the International Narcotics Education Association; also inclosing copy of the article referred to in the resolution, and requesting a memorandum regarding the correctness of the statements contained in the article, also regarding the organization known as the International Narcotics Education Association.

In view of the fact this matter comes up at once in your committee, time will not permit going into the matter in detail. The article is based on an entirely erroneous premise that "The growth of narcotic addiction in the United States and the world over is the most alarming symptom of the new century," and "Our youth, both sexes, by the thousands are being hooked and brought into this living death." These statements as to the United States can not be backed up by facts or figures. On the contrary, those who are enforcing the laws with regard to narcotics and who are, without doubt, in the best position to know actual conditions, deny these statements. A recent survey made by narcotic officers throughout the United States shows the number of addicts as well within the half-million mark, whereas the article makes an estimate of 1,750,000. This estimate, it will be noted, is based upon figures published from various parts of the country through various unofficial sources as far back as 1913, prior to the passage of the Harrison Narcotic Act, and the latest date, 1918, which it is noted was prior to the amendment to the Harrison Act which tightened up that law and made enforcement much more effective.

The statements made with regard to the annual per capita consumption in the United States, as compared with that in foreign countries, is based upon

figures published seven years ago, and do not in any way show the correct conditions at this time, as the latest official figures show the annual per capita consumption of opium at the present time as about 7 grains; in morphine equivalent seven-eighths of a grain, and cocaine less than one-quarter of a grain per capita.

The statements with regard to the alarming addiction of school children are tended to create hysteria, and are not true. The statement with regard to the potentiality for addiction of 1 grain of heroin and 1 ounce of heroin is in the same category with that regarding school children. The assertion that one-fourth of a grain of heroin will cause addiction of a child, and therefore 1 ounce will make 2,000 addicts is beyond comprehension, and leads the layman to believe that addiction is growing at that rate. The article, based on an erroneous premise, naturally draws wrong conclusions; and, if placed in the hands of the young people of this country would stir up in many of them a desire to know something of this, to them, new thrill giver. It is recognized that proper publicity based upon facts is beneficial; but such articles as the one presented places a wrong light upon the subject and causes undue and unwarranted excitement, in view of the fact that the dope evil is now practically centered in the underworld, where it can best be coped with.

To refer again to the matter of the school children being made addicts, attention is called to the fact that the present street price of narcotics ranges around a dollar to two dollars per grain, and in this article it is stated that the average consumption of an addict is 10 grains per day. It, therefore, can not be seen how school children could ever be able to cater to their addiction at the price of ten to twenty dollars per day. Furthermore, it is the experience of this office that confirmed addicts have no end of trouble identifying themselves with peddlers sufficiently to be trusted with a purchase of dope, and they are continually violating the law in the presence of officers in order that they might be sent to a penal institution for a cure due to their difficulty to procure the needed drug.

The effect upon legitimate manufacturers of face powders with regard to the admonition "In using any brand of face powder regularly, it is a wise precaution to have a sample analyzed for heroin," can readily be imagined, as the only inference is that such manufacturers are surreptitiously spreading the drug evil through the medium of their products.

It is understood that the Public Health Service is transmitting to you a memorandum upon this article. That service has recently been employed upon a survey of narcotic conditions in the United States, and it might be stated that their findings with regard thereto are confirmed by the recent survey made through narcotic officers.

It is certainly felt that the publication of such an article in its present form would be most ill-advised and would, in a measure, place the stamp of governmental approval upon a statement which this office can not in any way approve.

With regard to the organization known as the International Narcotic Education Association, you are informed that this office has no information other than that gained through newspaper articles which have been published, purporting to be from that organization, and the article now presented to you for publication. The records of the Narcotic Division fail to show that this organization has advised of the alarming conditions pointed out in the article in order that proper investigation might be made.

Respectfully,

L. G. NUTT,
Secretary, Federal Narcotics Control Board.

EDWIN L. NEVILLE,
*Representative, Department of State,
Federal Narcotics Control Board Advisory Committee.*

F. R. ELDRIDGE,
*Representative, Department of Commerce,
Federal Narcotics Control Board Advisory Committee.*

Senator CAPPER. Have you some report from the Public Health Service?

The CHAIRMAN. The Public Health Service has sent a representative to speak for it at the hearing.

We will now hear Captain Hobson.

STATEMENT OF HON. RICHMOND PEARSON HOBSON, FORMERLY CAPTAIN, UNITED STATES NAVY, FORMERLY MEMBER OF CONGRESS FROM THE STATE OF ALABAMA, AND PRESIDENT OF THE INTERNATIONAL NARCOTICS EDUCATION ASSOCIATION, WITH HEADQUARTERS IN LOS ANGELES, CALIF.

Mr. HOBSON. Mr. Chairman, before I proceed I wish to challenge the competency of those who signed that report.

The CHAIRMAN. Well, this committee is not going to try the competency of the Federal Narcotics Control Board.

Mr. HOBSON. My statement opens with this: The representative of the Public Health Service is present here, Doctor Kolb, and in his presence and in the presence of the representative of the State Department, Mr. Neville, and in the presence of Mr. Eldridge—I do not see him here—in the office of Colonel Nutt, in a conference at which I was present, in a discussion largely amongst themselves, ended with the premise that not only this matter is not of primary importance but that the addict is inherently a good citizen and does not have the psychology or criminology, and the trouble with him is he is not able to get his drug; if you let him have his drug he is all right; and the climax was reached in these words in a statement by Doctor Kolb, who is here present, to wit, "There is more crime in a gallon of liquor than in a ton of narcotics."

I am ready now to proceed, Mr. Chairman. And I mention this at the outset, Mr. Chairman, for the reason that I tried very diligently to know what kind of a report came, so that I could meet it in an open way.

We propose, Mr. Chairman, to show the following: First, that narcotic addiction in America is very serious and that its growth, with the addition of heroin, is alarming.

Furthermore, that it is not fair for the narcotic bureau and the other agencies to demand proof that involves the great field of smuggling. The burden of proof is on their side when they admit that 90 per cent of all the narcotics used by this army of addiction which we are concerned with is smuggled and when they have not made any effort themselves to find out how many addicts have been registered by physicians, or treated by physicians, or in sanitariums, or who are in prisons, or anywhere else. The half has never been told.

Furthermore, it is against public policy to minimize this terror. It is the most secretive activity known and the most difficult of all activities in which to establish the truth. And with the public at large there is not enough intelligent interest to bring about the cooperation of State governments and municipal governments with the Federal Government. There is actually not enough knowledge abroad in society at large to bring about the enactment of intelligent laws and regulations in States and cities, and the crying need is for information and education; and at the present moment the only way to get that and the action that will flow from it is to reach and awaken the motive of self-preservation in these young people who are being beset and menaced daily by this terror, and in society, the institutions of which are being undermined and whose life is being threatened.

The whole struggle—and it is a biological struggle for the life of our people and the species—the whole biological struggle is a fight to reach and arouse the motives of self-preservation in society, in groups in the species at large. This motive aroused will insure every form of action to bring safety. If dormant, then in ignorance this disease will run its course. It arose in Asia in a slowly advancing form in the body social of humanity. Alarming symptoms have appeared at various times, indicating a more rapid march, notably in the discovery of morphine, and then cocaine, Now the recent discovery of heroin, nearly four times as powerful as morphine, whose addicts become recruiting agents, where the increase is not by addition but by multiplication. The disease has taken on a galloping form.

We propose to show, Mr. Chairman, first that the situation is serious and that its expansion is alarming.

We propose then to prove that education is a necessity; that a simple warning at this time will save thousands of our young people from this fate that is worse than death.

Some pamphlet ought to be issued, some notice in some form; and we submit this little pamphlet, the best we have been able to bring forth as having the elements, the vital and fundamental elements of carrying the truth.

We suggest a revision committee to go over the document before it is sent to the printer. If the chairman will permit, I will suggest suitable names, most of whom I have contacted, and they will gladly serve. On the part of the Senate, Senator Copeland, Senator Spencer, and Senator Ball, all M. D.'s; on the part of the House, Doctor Kindred, Mr. Rainey, Doctor Summers, and Doctor Temple. I would suggest that this committee secure the assistance and the advice of the narcotic division of the Public Health Service and of Assistant United States Attorney General Crim, who actually contacts the real products of this addiction.

The gentlemen mentioned being, most of them, M. D.'s, and Mr. Rainey having been chairman of a committee which made the most thorough investigation ever made of this subject and the best posted man on this subject now.

And Doctor Temple, who is an eminent educator, and I am sure that Senator Fess, who is also an eminent educator, will cooperate with us in getting this matter in form for education purposes.

Now, as to the numbers that are required, we are recommending that two-fifths only be prepared now, and three-fifths in the winter. The reason for this is that the Members of the House, in particular, are not in position to handle now the full amount, and the Printing Office, Mr. Kiess informed me, is very congested.

In this proposition the Senators would have enough to reach the colleges, schools, and the secondary institutions, and down to and including the sixth grade. We expect valuable educational aid in solving the problems of pedagogy now difficult in the lower grades.

The State Board of Education of the State of California is studying the problem through special committees. The State boards of education of 44 States are ready to study it now.

I find that Members of the House could not handle more than 50 per cent. This two-fifths proposed makes about 40 per cent.

I am authorized to assure Senators and Members of the House of the cooperation of 500,000 women who are ready to aid in the distribution; women that are organized and efficient and trained, and who would gladly cooperate in the counties and cities to see that the best distribution of documents is made. They will gladly give their help when called for. I refer to the Women's Christian Temperance Union.

Senator FLETCHER. Captain, may I ask you a question?

Mr. HOBSON. Certainly.

Senator FLETCHER. Whether or not there is any danger of this spreading, or any possibility of its spreading in the country; that is, in the rural districts?

Mr. HOBSON. I will be very glad to read to the Senator a report of the Whitney committee, of the State of New York. That is the best evidence we know and the best investigation of that kind. I can give you the substance of it in a sentence.

Senator FLETCHER. The idea was that there was no use of going into that field unless there is danger or trouble there.

Mr. HOBSON. This report shows that it is spreading in the rural districts more than it is in the bigger cities. The report is that it is spreading in the towns, and in the country, in the rural districts, far more rapidly than it was thought possible. The youth in the country are more unsuspecting, and more easily "hooked." This disease goes through the whole body social—rural, suburban, urban.

I propose to produce witnesses, then documents, then make a statement.

The CHAIRMAN. What do you mean? That you want a further hearing for the introduction of witnesses?

Mr. HOBSON. No; I will reserve any time that you might accord me after our witnesses have appeared, and then I will produce my documents and sum up.

The CHAIRMAN. The ordinary practice in a Senate committee, Captain Hobson, is for those who are proposing a resolution to go ahead and make their case.

Mr. HOBSON. That is what I propose to do. Doctor Kindred is here, and with your permission he will make a statement at this time. And in asking Doctor Kindred to come I think it is proper to say that he has been connected with the treatment of narcotic addicts for a generation, and is one of the best practitioners—an expert in active work.

STATEMENT OF HON. JOHN J. KINDRED, A REPRESENTATIVE FROM THE STATE OF NEW YORK

The CHAIRMAN. Doctor Kindred, will you state your name and address to the reporter?

Mr. KINDRED. John J. Kindred, River Crest Sanitarium, Queens Borough, New York City.

Senator FESS. And I think you ought to state to the reporter that you are also a Member of Congress; a Member of the House.

Mr. KINDRED. I shall accept that suggestion. I am speaking primarily, however, as a physician, Senator Fess, and gentlemen.

I suppose the committee, like all our committees, is exceedingly busy at this time, and I presume it would be well for me to shorten my statement.

The CHAIRMAN. The committee will appreciate it, Doctor, if you will.

MR. KINDRED. Then I will hurry on and discuss very briefly, in a few headlines, what I would like to present in regard to this subject, which is of national importance.

I will first make a statement as to the estimated number of those who are addicted to habit-forming drugs in the United States. In the nature of things it is difficult to secure accurate and real reliable information as to the number who are thus addicted, but from reliable reports through Dr. Carlton Simon, who has been made a commissioner by the mayor of the city of New York—so important does he regard this question he has made him a commissioner with full power to look into this entire matter and to handle this important matter, and with no other duties; and it is his opinion that including those of the underworld, who are the most numerous class of addicts to habit-forming drugs, and another class who are not at all of the underworld and which includes some of the most cultured people in the city—he estimates all of those classes to run up, in the city of New York and the State of New York, to around 200,000.

The estimate which I have arrived at in some remarks which I have made on the subject on the floor of the House of Representatives—my estimate of the number in the United States, which is based on various sources, is around—and I do not intend to make extravagant statements or sensational statements, but to be conservative in everything I say—my estimate is that the number is around 1,000,000, and that is as near an approximation as can be made, I think.

The addiction has become of late years an addiction to heroin and cocaine more than to the alkaloids of opium. The alkaloids of opium were formerly the chief drugs of addiction, but not so during the last 15 years; not so now, because during the last 15 years there has been a very rapidly increasing number who have become addicted to heroin, which, as has probably been stated before, its strength—as it is made from the alkaloid of morphine by synthetic and laboratory methods—its strength is four times as great as opium. There has also been a large increase in the cocaine addiction. But the addiction to heroin is much more rapid and has increased much more rapidly than the addiction to any other drug.

And in connection with the heroin and cocaine addiction itself—and that will be borne out by the unbiased scientific evidence of jail physicians, and prison physicians who see these criminals after they are brought to our prisons, the statement is that nine-tenths—perhaps that is extravagant, but 75 per cent of all the crimes of extreme violence which are committed in this country, and which have been so rapidly increasing since the war—and I am not saying that all the increase is due to increased drug addiction, because other factors enter into it—but 75 per cent of those who commit those crimes, seemingly motiveless, are committed by these addicts.

I might cite as an instance of what I mean, that striking case that we have recently been reading about, by the two apparently intellectual boys of about 19 years of age, in the city of Chicago, who, seemingly without much forethought, took an innocent little boy on the street and took him in an automobile and through the influence, we will assume for the sake of this argument, because that

fits into the case of those who commit crime—through the influence and a morbid influence that possessed them, they killed him, whether with or without motive. I will not say that the drugs in question were the sole cause of the crime, but I am taking it to illustrate what I mean. It will be found, and the prison physician might be able to tell us to-day from those two boys, from his observation, of their withdrawal symptoms, whether they were addicts, and whether the drugs were the cause, fundamentally, of that crime.

The withdrawal symptoms is a medical matter that I will not take the time for now.

Senator FLETCHER. What do we understand by withdrawal symptoms? I notice in the papers, it speaks of one of those boys who is calling for sweet spirits of ammonia all the time. I do not know whether that has any connection with the drug habit, or not.

Mr. KINDRED. It has. The drug habit has to be spoken of in a generic sense, because if one can not get his heroin or morphine, he will gladly take some other substitute. As a matter of fact, it has been a common practice with physicians, who keep sanitariums, like one of the two I keep, to treat drug fiends—morphine fiends, and cocaine and heroin—those who take even two or three hundred grains of morphine, which I have seen now and then—not that quantity is taken as a rule—but I have seen one patient who took over 300 grains of morphine, bearing in mind that one grain would kill the normal person. And here is a matter in regard to the demand for another drug by those who have been addicted—and this answers your question—that man who took this enormous quantity of drugs—

Senator PEPPER (interposing). Does that mean per diem?

Mr. KINDRED. Yes; he could have those drugs withdrawn by a substitution of sublimate of heroin; he could be experimented with for 72 hours, and in 72 hours he could be withdrawn entirely.

Now, the victim of a drug, therefore, who goes to jail and who can not get his drug of addiction will gladly take anything. And I was interested to hear you say that you had seen that statement that one of those boys had asked for a stimulant like sweet spirits of ammonia, because I have not seen it, and I did not know that those boys were addicts, but this case fits in with the idea, and fits in with the holdup crimes, which are increasing so alarmingly in the city of New York and throughout the country districts, that I mentioned those boys as an example.

Now, there is one other phase that I would like to call the attention of the gentlemen of the committee to with the view to securing their interest in some needed changes in our existing laws for the benefit of the drug addict in the future; and this is a matter which has been referred to here by Captain Hobson, the matter of 90 per cent of drugs which is being taken in this country, the proof is that 90 per cent is being smuggled in. That is probably quite true, and in the nature of things must be true, because the law undertakes to regulate and does regulate as stringently as any law could, the dispensing of narcotic drugs.

But this is what I want to call your attention to: That law does not allow physicians to treat with narcotics any patients who are suffering with the narcotic disease itself. To give an example: A

physician can, within the provisions of that law, give any amount of morphine to a patient, if he accounts for it to the proper authorities. But if he gives it to an addict, or a substitute to taper off, he can not, under the law, give that patient any drug at all. And right there I want you to observe, and I am sure that Senator Ransdell will be interested in this condition I am going to cite, because it is in his State. In the little city of Baton Rouge, a very honest and very self-sacrificing physician, whose name I have forgotten—I believe that is an industrial city—

Senator RANSDSELL. Yes; they have the second largest chemical refinery there for refining oil in the world.

Mr. KINDRED. Then this case will illustrate two things: That addicts in the industrial towns—that it is not only in the larger cities, New York and Chicago, that are the hotbeds of crime; but in the smaller towns, Senator Fletcher, to which you referred, without intending to exaggerate the facts at all, because the facts are that there is an increasing tendency, and an increasing number of drug addictions. Now, to illustrate the need for a change in the Harrison law with reference to narcotic drugs, by the situation in your State, Senator, it was undertaken there by this honest physician—there was no question about his reputation—to establish a clinic, because there grew up rapidly, as there grew up in certain other centers, a large number of addicts, and who wanted to keep them comfortable so that a man who had gotten into the drug habit, and who wanted to quit, and who had to quit on account of the law, a man who had got to the point where he took 3 or 4 grains a day, or maybe 5 grains a day—that is the most common in the beginning—and they increase if they can get it, and it is wonderful how addicts can balance it and keep it up. And this physician wrote a most interesting article in a leading publication, and I was very much impressed by it, in which he showed that he was trying to enable the heads of families, who took 5 grains of morphine, we will say, or lesser quantities of cocaine, or the same quantity, to keep comfortable and to go on with his work and to support his family, rather than to go into the hands of the bootlegger who would encourage him to double his quantity, and at a price which would cause starvation to his family.

Now, that is the point. I am going to introduce an amendment to the Harrison law in the next short session of Congress—and I am glad to have this opportunity to speak to you gentlemen as to the reason why we should have an amendment to it, to allow physicians who are reputable—to allow them to use it not alone in the treatment of their patients for other diseases but in the treatment of narcotic reduction itself—if I make that point clear.

Senator FLETCHER. Doctor, may I ask a question there?

Mr. KINDRED. Yes, Senator Fletcher.

Senator FLETCHER. To give your expert opinion as to whether the distribution and circulation of such an article as this, or almost any article outlining the nature of the drugs, and reciting the fact that they are being obtained and used—whether that would have the effect of restraining or checking the spread of this thing, or whether it might act in the contrary direction, as is the point made in the report which was read here? I would like to get your opinion of that phase of it.

Mr. KINDRED. Well, Senator Fletcher, I am not trying to answer your question too broadly, but I am trying to answer it fundamentally. I think we are faced with the necessity of education in everything. Of course, your question suggests, "Shall we suggest evil to people when they know not of the evil?"

Now, my opinion is based on some hard and practical experience with human beings in New York City, where I have worked with the poor people for many years before I had enough success to get a good shirt. That is, we must educate them and tell them the truth, if in the end you are going to get better results. To illustrate the point, more particularly on sexual questions, I think you have got to open the book and educate them. And as to the kind of education along this line, I think I can give you a pretty good idea—as I said, I do not want to be extravagant or sensational in any view I may try to impress, but I know that schoolboys and schoolgirls—and I know it personally—are for the first time in history becoming more or less addicted to the drugs. Now, that depends on the community, as to whether they are very much addicted to heroin, and they are addicted to heroin more than to cocaine, because the peddlers are on the job. I do not think it is an international syndicate. You know Mr. Porter, over in the House committee, has been doing some work to repress opium. But I do not think it is organized into the shape of an international traffic, but there are peddlers and tempters upon the streets and around the public schools of our cities to try to find a market for their poisons and for their poisonous stuff.

Senator FLETCHER. Are those peddlers themselves addicts?

Mr. KINDRED. Yes; they are in most cases addicts. And that is very strikingly true of heroin. Morphine, we will say, there are not so many cases. They, like the fellows who take too much liquor, they will say it is a bad thing. But the heroin addict seems to be inspired with a spirit of devilment to make the others do it also. That is a physiological condition of this drug, and, if you gentlemen are interested enough in this, I think you will find it confirmed if you will study it.

Senator RANDELL. It appears in statements in the press that drugs are prescribed at times. Do the doctors now prescribe heroin?

Mr. KINDRED. No, sir; Senator Ransdell, they do not prescribe it now. When heroin was first introduced, in the form of a drug it now is, in the United States Pharmacopœia it was indorsed by the medical profession, and it appeared then as a sedative in cough medicine. And it was a good sedative in cough medicine, not as good a sedative as some others, but it was a good sedative, but four or five years ago it was taken out of the list of drugs in the United States Pharmacopœia. And now we are considering a law—and I think maybe it did go through in my absence in New York—a law in relation to health, which would do away with it. If it did not go through, such a law should be passed.

Senator RANDELL. It is still prescribed?

Mr. KINDRED. No, sir; the United States Pharmacopœia leaves it out as no longer an official drug; no druggist has the right to dispense it.

Senator RANDELL. How long since has that been so?

Mr. KINDRED. I should say four or five years.

Senator RANSELL. I know a man who has given a good deal of it within the past 12 months, in my little town.

Mr. KINDRED. I say that most physicians understand the danger of heroin, and have long since stopped giving it, because cocaine, which is a comparatively less dangerous substitute as a sedative, and it is good enough to go into cough medicine, is used.

Senator PEPPER. Doctor, along the line of Senator Fletcher's inquiry, and taking it for granted that education is one of the means of fighting this evil, the question always recurs, does it not, in a particular case, whether the educational instrument that you are using is adapted to its end?

Mr. KINDRED. Yes; I would say so unqualifiedly.

Senator PEPPER. And that means, in the first place, in a case of literature you first want to be sure that the facts as stated are accurate?

Mr. KINDRED. Yes, sir.

Senator PEPPER. And in the second place that the form of presentation is educational and not exciting?

Mr. KINDRED. Yes, sir.

Senator PEPPER. I have seen, in dealing with young people, a lot of well-meant experiments in relation to the giving of the facts of life, sexual relationships, and so on, more harm than good done by having it done by the wrong people in the wrong way at the wrong time; and I, for one, feel that we are asked to take a tremendous responsibility here in disseminating any particular document to get into the hands of thousands and perhaps millions of people when the possibility is not only that it is not accurate, but that the form of it tends to excitation rather than prevention. Now, that is the thing that worries me about this proposition.

Mr. KINDRED. I understand the Senator's point of view, and I agree with the general principle of the point of view absolutely. Now, with relation to the proposed document, if there is a proposed document—of course, I am addressing myself, gentlemen, you might say, to the abstract, to the general proposition. Now, I have already answered—

The CHAIRMAN (interposing). The question here, Doctor, before this committee is whether we are going to report a resolution to print a document which is here.

Senator CAPPER. May I ask the doctor if you have read the document which it is suggested we print?

Mr. KINDRED. I was coming to that. I am very glad you asked the question.

Senator FLETCHER. I understand the suggestion of Captain Hobson was that that was to be referred to some joint committee for consideration.

Mr. KINDRED. I have read, let me say—I spent with Captain Hobson an evening, and a good deal of the night, in going over the document which he had, and while we did not finish it completely, I have gone over what I consider the most of it, and while I would want to read it again very carefully to answer conscientiously and literally all that you have suggested, I think the general principles of the document would be educational and prove useful.

Senator PEPPER. In whose hands? The hands of teachers or parents?

Mr. KINDRED. I think the same limitation might be placed upon the method of use as is placed upon any other publication.

Senator PEPPER. But if we turn this loose we can not control the distribution of it. And my observation has been, in teaching realism, you handle the problem very differently when you are trying to reach parents than you do if you are trying to reach teachers, and you handle both of those differently than if you are trying to reach the very young. I can justify myself in putting matters into the hands of parents or the professional teacher, and I would put a document into the hands of either which I would not think would be a document to put into the hands of the young.

Mr. KINDRED. I think you are quite right, Senator. There is a logical difference between the old and the young. But I had supposed that any document, as suggested by Senator Fletcher, submitted by anyone, would be submitted to a special committee.

The CHAIRMAN. That is a very unusual manner to deal with a matter that is presumed to be printed in either House of Congress.

Mr. KINDRED. I suppose the Senator refers to what is the routine?

The CHAIRMAN. I am not referring to the routine; I am referring to the rules of the Senate.

Mr. KINDRED. Are the rules of the Senate the same as they are in the House?

The CHAIRMAN. Anything to be printed in the Senate, except by unanimous consent, comes to the Committee on Printing, and it goes over the matter, not only with reference to the matter of the cost but with reference to the suitability of it. In our last meeting we edited three proposed documents, one for Senator Ransdell, and one for Senator Fletcher, and one for myself.

Mr. KINDRED. What I am very much interested in is the fundamental principle of getting this before the people, and the only two fundamental things that are going to eliminate this evil are education and knowledge on the part of the people. And whatever you may hear to the contrary, there is a great and growing evil in this country in this matter.

Senator RANSDALL. Doctor, I believe, if you will permit me to break in there, that all of us are intensely interested in this thing, but we want to be sure we are right. That is why I asked to have this report read.

The CHAIRMAN. I do not want to diminish your time, Doctor, but the Senate has voted to adjourn on Saturday, and I, at this very time, have a most important conference on a bill, as one of the conferees from the Senate, and I would like to get along with this hearing as fast as we can.

Mr. KINDRED. Senator, you have been exceedingly patient and courteous with me, and I believe you have already given me enough time. I will quit now, unless there are any questions you care to ask.

Senator RANSDALL. I want to ask you, are you prepared to indorse this document unqualifiedly and say that we ought to publish it at this considerable expense of probably \$300,000, and put it out as coming from the Congress of the United States, correctly stating these facts and this situation—and it is a horrible situation if the facts are correctly stated. But here come three gentlemen who are representatives of the Government, from the Narcotics Control Board, who say that these facts are not accurately stated.

Mr. KINDRED. Gentlemen, why do you not take a 50-50 view of it and refer it to a special committee?

Senator RANSELL. That would be fine, if Captain Hobson would agree to it.

Mr. HOBSON. You know where the session stands—to adjourn on Saturday.

Senator RANSELL. Yes.

Mr. HOBSON. Believe me when I tell you that the postponement of doing this at this session, as compared with the doing of it will involve the welfare and safety of a great many young Americans.

The CHAIRMAN. Captain Hobson, are they going to be saved by this pamphlet?

Mr. HOBSON. Yes; Mr. Chairman we have seen it from the inside in Los Angeles. Parents bring children to us, after they are hooked, and when we ask them, "How in the world did you get started?" invariably they say, "We never dreamed what it was." In the case of the girls, they are often told it is headache powder, and in the case of the boys they say, "Watch me. This is snow," or "Come to a snow party," and so on. It is not guess work. The physiological elements are as I have stated them. Doctor Kindred will tell you the same or any other doctor. A knowledge of the effect on the brain, and on the organs of reproduction, will stir the deepest motives of self-preservation. A warning will save our youth, a large number of them.

We are proposing, Senator, that we do not pass on the merits of the document now, but that we pass on the principle and authorize it; now, then, let a committee determine its merits and revise it as they may see fit.

The CHAIRMAN. A committee you are naming?

Mr. HOBSON. No. I simply named them because they are mostly physicians, and are Members of Congress.

The CHAIRMAN. Those who are still remaining in Congress have some rights in the naming of committees.

Mr. HOBSON. Excuse me, Mr. Chairman; I am aware of the rights of the chairman to name committees—I simply made suggestions.

Senator RANSELL. I do not think he meant any harm by picking out Members of the two bodies of Congress, and suggesting that they be named.

Mr. HOBSON. The committee was suggested to pass on the question of the medical and scientific suitability, and on the pedagogical suitability of the document.

Senator RANSELL. Personally I would like to see the program undertaken, but I understood you wanted us to agree to-day to publish this document.

Mr. HOBSON. After it has been passed on.

The CHAIRMAN. There is nothing before this committee except the Capper resolution.

Mr. KINDRED. Can that not be modified?

The CHAIRMAN. Undoubtedly it can be amended.

Senator RANSELL. Let us try to do that.

The CHAIRMAN. Have you anybody else to present?

Mr. HOBSON. Yes; I would like to present Doctor Summers.

**STATEMENT OF HON. JOHN W. SUMMERS, A REPRESENTATIVE
FROM THE STATE OF WASHINGTON**

Mr. SUMMERS. Mr. Chairman, I am a physician by profession. I am not a specialist in the treatment of drug addicts or anything of that sort. I have only had time to examine a few pages of the document that is before you. I believe there is a real menace that it would be well for the young, through parents or through teachers, to be warned of. I am not yet fully persuaded that it is the thing for general distribution.

As to the document here, I found, perhaps in each half page, a few words in a line that I think should be changed. But, of course, that could be done by a revising committee that you might select if you decide to do this. In my humble judgment a very considerably abbreviated document might be authorized, which would cost much less and which would carry the same message and go to a more restricted number of people and in the main would be the most desirable thing. Something that Captain Hobson, I believe, had in the way of a mimeographed copy of about three pages, something that came to my desk ahead of any of this other material, it seemed to me told the story about as well as the more lengthy document. I believe it is well worth while and advisable that the thing be favorably considered, as I say, in the more restricted form and in the more abbreviated form, because we can go farther, if we think it seems desirable, a little later.

But as to the importance of the matter, I believe that it is important. I am sure, as I read part of this document to some members of my family and my friends, that it served as an opportunity, and gave an opportunity to me, you understand, as a physician, to emphasize to them some warning—give them some warnings that I never would have taken occasion to do, perhaps, and so I can see how in the hands of a teacher or a parent it might serve the same good purpose.

Senator FLETCHER. You would limit the distribution, Doctor, to parents or teachers?

Mr. SUMMERS. Yes; that is my impression at this time of a very considerably abbreviated document; and, of course, the language as to its scientific value and the manner of presentation, those are both of very great importance, as the Senator has said. It is possible, of course, to rather excite, and so on, rather than to serve the good purpose of warning. I am not saying that that is a criticism here, but it is a point to be taken into consideration in anything that is done.

Senator PEPPER. That is the reason that I ventured to say what I did to Doctor Kindred, because I have observed, and I have had some experience in dealing with young people, that the same fact stated to a parent or to a teacher will constitute a warning of the most solemn sort, which will call for and secure preventative action. But if stated to a young person it may stimulate curiosity and have precisely the opposite effect from the one that is intended. And I have never seen a document yet, or a picture, or any set of statistical statements which in exactly the same form are usefully prescribed for those various sets of people. It seems to me you have got to vary your instrument.

Mr. SUMMERS. Now, again indorsing the general plan, you understand, I have nothing further to say, unless there is something that you wanted to ask me.

Mr. HOBSON. Mr. Chairman, we have other witnesses; we expect Senator Copeland and Congressman Rainey and Senator Ball, but the hour is already late. I will omit much of the evidence of documents and sum up briefly.

With regard to the evidence of the head of the narcotic division, I notice in his release of May 23, 1924, the narcotic division has a statement that was based on an extract from a report of the Commissioner of Internal Revenue for 1923. In 1922 there was a total of 2,996,000 and some odd ounces of narcotic drugs of all kinds imported. During the year following there was an aggregate of over 6,000,000 ounces, an increase of over 100 per cent. I see no reference to that in this release.

I have here a report of the special Treasury committee appointed in 1918, reported in 1919, a committee that undertook to get figures, which this bureau has not, or this division has not. After writing to all of the physicians in the country, and all of the health agencies in the country, they received replies upon which they have worked out the figure of 237,000 under treatment by physicians, and 420,000 in institutions, making a known total under treatment of about 660,000 medical addicts. This does not include nonmedical addicts of both kinds; only a part are known.

I wish to put in evidence extracts from the report of the Whitney committee, appointed by the Legislature of New York, as it answers the question that was asked a few moments ago about the rural communities. It says that the results of the investigations in the rural communities showed that the condition is far more serious and dangerous than was deemed possible.

The CHAIRMAN. Do you wish to put that whole report into the record?

Mr. HOBSON. No, sir; just special paragraphs. They estimated after an unusually extensive investigation that from 2 to 5 per cent of the entire population of the city of New York were drug addicts. The figure that I used for New York, merely as a matter of suggestion, was 1.8 per cent. The committee's lowest estimate is 2, its highest 4. The report proceeds to say that "reliable statistics obtained from physicians and others, and from the investigators in the Federal courts, indicates that the disease is more prevalent and widespread in the small cities and rural communities than was believed to be possible."

I will not quote further from this committee's report, except to take their summing up, and this is not far from our motto. In speaking of drug addiction, they said, "The cause is ignorance; the results misery; the remedy education."

Now, in the recent hearings held—

Senator FLETCHER (interposing). Is heroin manufactured at all in this country, Captain?

Mr. HOBSON. Yes; but only a small part of the total. Doctor Richardson, a member of the board of trustees of the American Medical Association, before the Committee on Ways and Means of the House of Representatives, in the hearings on the antiheroin bill,

omit this

made the statement that in New York City the physicians prescribed during the last year 58 ounces of heroin; but that conservative estimates based the consumption at 76,000 ounces in that one city.

That brings up again the testimony from the narcotic division. They will tell you that only 5,000 ounces were sold that year. That illustrates that what is sold hardly touches, so far as heroin is concerned, this great and growing menace; that is, that is recorded as sold. It illustrates that the whole traffic is gigantic, illicit, and under cover, and that this division does not contact it. Neither do these reputable druggists and reputable doctors.

And I will again refer at that point to a statement in this same report of that bureau that 90 per cent of all the drugs used by non-medical addicts in this great field that concerns us—that 90 per cent of it is smuggled through the bootleggers. Recent investigations have disclosed a situation with respect to the smuggling of drugs that he himself declares “is quite alarming.”

Senator FLETCHER. Does that suggest, or not, Captain, that the way to reach this trouble is to stop the smuggling?

Mr. HOBSON. Of course it does, Senator, but if you will allow me, I will bring in at that point what I was going to bring in later, that with the best laws it is possible to place on the statute books, you can not reach the source of supply for heroin addiction. They can take crude opium and morphine, just beyond the border, and treat it with vinegar, or acetic acid, and make heroin. One-fifth of a grain of heroin is a medical dose for a man. The average age of the heroin addict is 22. They become addicts in their teens. If a minor attends a snow party a day for six days, he will become an addict. It would be possible to make four addicts, or more, out of a grain, or 2,000 addicts out of an ounce. A carrier pigeon can transport that ounce. We have authentic advices from Europe—where we have offices—that continental druggists have discovered how to produce heroin and cocaine by synthetic processes out of coal tar products; and that great chemists are working on other synthetic drugs, some of them expected to be more powerful than heroin.

You can not control the source of supply or the transportation. In saying this I do not mean that we should not have the best laws that can be devised. We should have the best laws for States and counties and municipalities to cooperate with the Government. But at best laws are inadequate.

Furthermore, it will be impossible to change most of these addicts. A young man called at our office; he was 24 years old, and told us that he had taken the cure 26 times. You can get them off the drug, but they are in a pathological condition. The ones that were noted, that stayed off of it, were the ones that got religion. Doctor Buckter, superintendent of the tuberculosis sanitarium in southern California, and who was in charge of the clinic in Los Angeles some years ago for treating addicts—several other cities had them. He told me he treated 700 addicts, and had high hopes that 10 per cent of them had been cured. He says since that time he has had occasion to check up on those supposed to be cured. He told me solemnly that he did not believe that one remained cured; that it is as incurable as leprosy.

All addicts have an antisocial psychology. When their drug is concerned any addict will lie like a trooper, the testimony of addicts is worthless. They will steal. They will murder to get their drug, where the question of the supply of the drug is concerned, they forget public policy, or anything else, and everything else. We must realize that they are sick. You do not see them under the torture. That they are subject to withdrawal symptoms and must judge them differently.

Now, in addition to this antisocial effect, it produces a very swift change in the brain—an exaltation of the ego. The addict will say, in his ego, he knows everything; he can do everything, and put it over. He is suited for daring crimes, holdups, robberies, and such crimes as bandits of old never dared.

But what is more alarming and biologically supreme in importance is that he has a psychology that compels him to be a recruiting agent. I do not mean simply like any addict, that he desires to have those close to him become addicts; I do not mean that he has an obsession, merely; but I mean that he has a mania to see others become addicts.

The average age of the heroin addict is 22, so he is recruited below the age of 20. They catch them as low as 8. I have seen addicts as low as 8 years. But the chief recruiting age is 16, 17, 18, and up to 19. Psychology is quickly to form a gang. "We are going together as comrades; come and join in the snow gang." They give heroin free until the youth are hooked, and once hooked, they are slaves. Then they start corrupting their friends. They begin to steal and soon drop into the underworld, the girls into prostitution and the boys into crime.

I will read the evidence of the commissioner of health of the city of Chicago. I will not read much of it. He gives his estimate of over a million drug addicts in the United States. He describes here the psychology of the addict, particularly the heroine and the cocaine addict that I spoke about. He says that there is nothing that the addict will not do to obtain the drug. He goes on to enumerate the acts he will commit.

Senator PEPPER. Mr. Chairman, if I may interrupt Captain Hobson, I want to say that I find myself a good deal embarrassed. I am very deeply impressed with the seriousness of this situation and the importance of some governmental action in regard to it. I do not like—

Mr. HOBSON (interposing). I will stop with the evidence.

Senator PEPPER. I did not mean that. What is uppermost in my mind as one member of the committee is this: That I can not reconcile myself to accepting responsibility for the dissemination of this document without more assurance than we are likely to get in the closing days of this session that it is the right sort of a document to broadcast. I know what the disadvantage of delay is, but we are up against the date of adjournment, Captain. And I do not see but that this committee would be serving your cause better if we put a brake on precipitate action and insist on getting a document which will really accomplish what you are after, rather than to act on something which in my present state of mind I am skeptical about. I do not know whether I state what is in the mind of any other member of the committee.

more assurance

Mr. HOBSON. I think you have, and I will come to that now.

Senator PEPPER. I wish you would.

Mr. HOBSON. I will dispense with the evidence in the documents, as I did with the evidence of the witnesses.

Senator RANSDALL. We are all satisfied about the evil. Show us the relief.

Mr. HOBSON. Now, Mr. Chairman, a former statistical officer of the Bureau of Education of this Government was for a long time director of our department of education and research, Dr. H. R. Bonner. There is probably no better man for gathering information and tabulating it. He produced our standard document, after undertaking to get all the information in the world and then sifting out what was reliable, and what was not, then gathering it together and indicating the degree of its reliability. And he produced here our Standard Bulletin No. 2, "The menace of heroin, morphine, and cocaine," which I wish to file with my hearings—

The CHAIRMAN (interposing). You may file that as an exhibit.

Mr. HOBSON. As an exhibit. I am sorry that we did not have them in quantity. I did not have enough to give them to the members of the committee.

This was submitted to the State Board of Education of the State of California, on whose staff there is a representative of the American Medical Association, Doctor Stoltz, who has charge of making the physical education questions relating to all matters of health and education. He reviewed this exhaustively and reported to the State superintendent that it was correct, and a fair and true statement so far as knowledge was available. The State superintendent has recommended this as a manual for the teachers, as it is our manual. And the State Board of California, and the city board of the city of Los Angeles are using it for pedagogical material.

It was also submitted to the American Medical Association. The only criticism we have from the American Medical Association is our quoting a table, for which we cited the authority. It was a minor matter. Barring that question, we don't know of any criticism that the American Medical Association has made of our fundamental material.

The little document that we are submitting is based on that material. I have no pride of authorship on it. I am only using the best material that has been supplied. There is but one text book in America that mentions the word "heroin." And then it does not mention it as a habit-forming drug. We have contacted State boards of education and teachers in large numbers. We are confident that about 800,000 teachers are ready and willing, and the law in many cases requires this instruction; but they have not any material. This is not in final form, nor is it composit, but it is the best there is.

I mentioned in the introduction to this document that it is a hybrid. You can not, Senator, get a document that will be entirely suited to the adults and then entirely suited to the minors. The only question now is to do the best we can. I take occasion again to recommend that we have this, every line of it, checked scientifically and pedagogically, and that in that checking up we consult specially the narcotic division of the Public Health Service and the Assistant United States Attorney General. Part of my mission to Washington has been to have the Treasury Department find a way in which it can

collect scientific information and maintain a narcotic survey which would give us authoritative information. This has been approved by the Secretary of the Treasury. I have recommended to the Secretary of the Treasury that he assign it to Major Haynes, who can bring together both the narcotic division and the Bureau of the Public Health Service. Similarly we have secured from the Department of the Interior provision for narcotic education service to head up their education agencies to solve the problems of pedagogy.

We have gone into it exhaustively. To-day the youths are not educated and often joke about it. It has been suggestive thus far, and the peddler capitalizes the suggestiveness they have had. He says, "Take a shot of morphine or a whiff of heroin." They will try anything once, and they say, "Watch us," and so on. Thus thousands of young people have been made addicts. Forty per cent of the Federal criminals are addicts; more than half of the prisoners in Leavenworth and in the Federal prisons are addicts. And then there are the peddlers, and when you have a peddler it means many more addicts, because he has his customers, so that it means many more than just the peddler himself. That is the result of the ignorance of the young people. They can use a suggestion where the people are ignorant.

But let me illustrate to you what would be the effect where knowledge came, such as this document would impart. You let a peddler bring a rattlesnake or a copperhead up to a youth and suggest, "Take a shot." You know that the motive of self-preservation, aroused at once, would make the youth start back with horror. There is a race consciousness of the danger there. There is no race consciousness of the danger in drug addiction.

Now, the elemental knowledge that would be conveyed by a little book, the effect of the drug on the brain and on the organs of reproduction, of children, and children's children, will have its effect. Give the youth this knowledge and the knowledge of the bondage from which there is no escape, this motive of self-preservation for the individual, the motive of self-preservation for the family and for the country would be aroused. Those motives will be his real protection, and then he can walk immune in the midst of any terror of narcotics to-day or in the future.

It is a part of our plan to enlist the National Educational Association and all the educational agencies to produce the best pedagogical plan. Secretary Work is in favor of it. The President is in favor of it. We hope that the National Educational Association at its approaching convention will take action.

Senator PEPPER. Captain, you are making a special application of the general proposition that the wages of sin is death. That is what it comes to.

Mr. HOBSON. It is more than that, Senator.

Senator PEPPER. It comes to that, pretty generally.

Mr. HOBSON. If a knowledge of death will cause revulsion—

Senator PEPPER (interposing). Your proposition has got to have some dynamic behind it, and you have got to present it in some way to the parent and teacher, and the method of presenting it to the young person, who is your objective, is a very different problem. And the best judgment I can form on the slight opportunity I have

had for studying this document is that it is not a document that you can safely put in the hands of the young people.

Mr. HOBSON. Senator, you would not mind my asking you what part of it?

Senator PEPPER. Why, the whole tone of it, sir, is such as to arouse, in the first place, in the minds of the young the thought that it can not be as bad as it is there stated to be; a young person reading that document would feel that the statements in it are probably overstatements made for the purpose of deterring the young from something which is pleasurable and which, after experience, will not be found to be nearly as bad as painted; that the effect would be, on a large number of people among the young, that it is not as bad as it is painted, and rather than arousing a feeling of anxiety or revulsion it would arouse curiosity. And I would not be willing to put that document into the hands of any young person for the forming of whose character I was responsible. I would be very glad to have that document in my own hands or in the hands of my wife, or in the hands of my grown children who have children to bring up; but I would not put it into the hands of the young. And I confess I have serious doubts as to the value of its statistics, because at this hearing it has developed that the narcotic addicts, the upper figure, are put at about a million; Doctor Kindred thinks a million is a fair estimate; and this fixes a minimum of 1,750,000, not taking into account a large number who are said to be known to exist whose number can not be ascertained. Now, when I am becoming responsible for statistics I want to get my statistics down within a range of error that is much smaller than that.

Mr. HOBSON. Senator, would you be willing, if we leave out all statistics? I am willing to waive them. It is immaterial from my point of view.

Senator PEPPER. I would be a lot happier if that document were rewritten with the aid of somebody who has had pedagogical experience; I should like to have it rewritten in a special form adapted to the needs of adults and teachers. And I would not attempt the distribution of a document, by the Government, specifically for the use of the young.

The CHAIRMAN. I do not want to interrupt you, Senator, and Captain Hobson in your discussion, but I promised Doctor Kolb, of the Public Health Service, that if he would come up here I would let him get back to the department. If we could hear him now, I would be glad to have him come on.

Mr. HOBSON. Senator, evidently you have not read the document nor my statement, but would you be good enough to be on the committee of revision?

The CHAIRMAN. Captain Hobson, may I suggest again to you that the Congress will name that committee, if it is named.

Mr. HOBSON. I will attach a further statement with the document itself, but may I ask now to have Mr. Rainey come on very briefly at this time?

The CHAIRMAN. If he will not take more than five minutes, we will hear him. But I have promised Doctor Kolb that I would use him and let him get away.

Mr. RAINNEY. I will not take more than a few minutes.

**STATEMENT OF HON. HENRY RAINEY, A REPRESENTATIVE
FROM THE STATE OF ILLINOIS**

Mr. RAINEY. Mr. Chairman, I know something about this proposition. A few years ago I served as the chairman of a Treasury committee to investigate drug addiction in the United States. I do not remember now the statistics, but they were all scientific men on the committee except myself. And the results they reached as to the number of addicts was something astonishing.

Now, I do not agree with the Senator as to the method of educating the young. I think we ought, if it were possible, to teach them the dangers of drug addiction. I want to tell you what they are doing for the young, and how they are teaching these dangers. I have gone with the narcotic squads through the cities and watched how they worked in the enforcement of the law. And I have seen how they make these drug addicts. The peddler of the drugs will take some morphine or heroin, mixed with milk sugar, and he will stand on a corner in the red-light district where the boys of the high-school type who are out for a good time will pass, and maybe they have had two or three drinks of moonshine whisky, and they are beginning to feel rather sick.

They will come along, dressed just in an ordinary way, and like the high school boys, and these peddlers will stand there and seeing the situation, they will say, "Have you ever taken a snort of this," and they will give them on the palm of their hands just a little milk sugar with morphine, and show them how to take it, and the immediate effect is, if they are feeling sick from drinking moonshine whisky, that they will immediately feel better. They get over that sickness at once. And if they get them to take that three times, on three different nights, they will become addicts. They do not know what it is, and they get them to do that three different times, when they are making these tours for a good time, and then they have got addicts. And so we have a regular system of developing addicts among the young in the cities. And I think the more you educate the young to the danger of it, the greater service you are rendering.

Senator RANSELL. Mr. Rainey, we want to do everything we can, but this is a printing committee, and the document, before it can be printed, has to have some sort of authority back of it; and the authority of this document has been called in question rather seriously by the narcotics board.

Mr. RAINEY. I think that is true.

Senator RANSELL. How would we get a document? It is not our business to get up these documents. There are other committees for that purpose. I was chairman of a public health committee in the Senate at one time, and I think we did a wonderful work. We got a home for lepers in my State, and it is still doing a wonderful work. It was the public health committee that did that. I wonder if there could be some other agency that can get this data up and then let us publish it. I assure you I have been horrified by Captain Hobson's document, and I think his association is doing good work in trying to call attention of the American people to this awful situation. I believe we ought to do what we can, and I believe I voice the sentiment of the committee when I say that. But we do not have the right to go at it in this way.

The CHAIRMAN. My own idea is that we have the Public Health Service, and the narcotics control board, and both of them have their own printing appropriations, and they can get up this data and put it out. But we have before us here a proposition to print 50,000,000 copies of this document. That is to be distributed to the Senators and the Representatives, which would give me, for instance, 250,000 copies of these things. I would not know what to do with them.

Now, we will hear Doctor Kolb, of the Public Health Service.

STATEMENT OF DR. LAWRENCE KOLB, SURGEON, UNITED STATES PUBLIC HEALTH SERVICE

The CHAIRMAN. Doctor, give your full name to the reporter, and state your business.

Doctor KOLB. Lawrence Kolb, surgeon, United States Public Health Service. I have been engaged in studying the narcotic situation from the scientific standpoint, and from the propaganda standpoint for the past 18 months. Previous to that I had charge of a veterans' hospital, formerly operated by the United States Public Health Service, where we treated addicts, psychopathic, and nervous patients.

But before starting my remarks about this paper, I want to say that Captain Hobson misunderstood me in the conference at the department. I explained to him how opium caused a patient to deteriorate and eventually to commit certain types of crime. I also told him that I was very strongly opposed to giving opium to addicts merely to satisfy their addiction, or to keep them comfortable. The proposed amendment to the Harrison law, which Doctor Kindred spoke of would result in that kind of prescribing and if passed it will set back the narcotic situation very seriously in this country.

Now, as to the number of drug addicts, those of us who have studied it carefully, have concluded that the maximum limit for the United States is 150,000, and that the probable number is about 110,000.

We have arrived at this conclusion by approaching the subject from various angles. Numerous physicians from all over the United States have been interviewed and it is rare to find one who has seen more than one or two addicts. A number of actual counts and surveys of addicts have been studied and analyzed and we have estimated approximately the number of addicts from the available supply of drugs. This is a point which is overlooked or ignored by those persons who claim there are millions of addicts. These estimates of a million and two million are merely statements not based on any tangible evidence.

I have a table here from which I will read directly, showing how much opium has been imported into this country, both raw opium and the alkaloids, since 1860.

Captain Hobson's article says that the average addict takes 10 grains of morphine daily. In fact, my personal cases show that they do take that much. They have averaged 16 grains a day, at the highest, and at the time I examined them, after the dose had been reduced in some cases, the average was more than 11 grains. But we have carefully studied the question of dosage, and in order not

to overstate the amount have set the average at 6 grains of morphine sulphate daily. During the period of 1890 to 1899, there was imported into this country a total of 605,000 pounds of opium, and 20,000 ounces of the alkaloidal preparations.

Senator FLETCHER. Is that the amount reported officially?

Doctor KOLB. This is official. We have been getting these figures for years, and this is accurate.

Senator FLETCHER. That does not include the smuggling?

Doctor KOLB. No; there was no smuggling until after 1915, when the Harrison law went into effect. Prior to that time there was no motive for smuggling.

Senator RANSELL. You mean that it could be had?

Doctor KOLB. You could buy it any place just as you can buy candy to-day. The entire number of addicts that could have been supplied was 246,008.

Mr. HOBSON. What date is that?

Doctor KOLB. That was in the decade 1890-1899. This table shows that the relative use of opium, compared to population, raised from 1860 until this decade 1890-1899, and then began to decrease and has been rapidly decreasing since the Harrison law went into effect in 1915. You have heard the statement that the United States consumed 36 grains of opium per capita. Here is what it has been: It was at one time as high as $62\frac{1}{3}$ grains. From 1860 to 1869 it was $31\frac{1}{2}$ grains; from 1870 to 1879, $38\frac{1}{2}$ grains; from 1880 to 1889, 53 grains; from 1890 to 1900, $62\frac{1}{3}$ grains; from 1900 to 1909, $53\frac{1}{3}$ grains; from 1910 to 1919, $27\frac{1}{4}$ grains; from 1920 to 1923, $9\frac{1}{2}$ grains, and it is still less now. Of course, since 1915 smuggled opium must be reckoned with. The figures given do not make allowance for this, nor do they make allowance for opium which was exported during the entire period.

In the table presented smoking opium is considered. The dose of this was estimated on consumption in Formosa, where smokers are licensed. Published statistics over a period of five years show that the average consumption of over 87,000 smokers was $2\frac{1}{2}$ pounds per year. The importation of smoking opium was prohibited in 1909. Since then none comes to the United States, except a small amount which is smuggled in and used by the Chinese.

As to the production of opium in the world, this article says 3,000 tons. Mr. Neville knows about the world production through his association with the opium committee of the League of Nations. They place production at approximately between 2,500 and 3,500 tons. Those 3,000 tons would supply about 1,440,000 addicts, if used entirely for addiction purposes, at 10 grains of morphine sulphate daily for each addict. This you observe is for the entire world.

The article says that the United States is the most addicted nation in the world and that we use more opium than any other country; yet it is positively known that the Chinese consume in its entirety all of the 2,200 tons they are credited with producing, and that a great deal that is raised elsewhere is smuggled into China.

The figures compiled by the League of Nations show that there are about 1,415,000 pounds of medicinal opium produced for use outside of the countries of the Far East, China, India, and the Straits Settlement, etc. These figures are higher than those we have collected from official consular reports, but they may not be too high.

Senator FESS. That is an interesting statement that all the opium produced in China is consumed in China.

Doctor KOLB. Yes; it is known that all that is produced in China is consumed there. Of course, a little smoking opium may be smuggled into the United States from China and be used by Chinese living here, but this is more than offset by that which is smuggled into China from India and other opium-producing countries. The United States and some other nations now have a system of reporting to each other any supposed illegal movement of narcotics. Recently we received information that a certain ship from the Mediterranean had about 10 tons of opium on board which it was thought she would land here, but she went on to the Far East.

Now, we go on to the question of what we might have for use here. The figures show that approximately 1,415,000 pounds of medicinal opium are produced for use in all the world, outside of the eastern countries. At 10 grains of morphine sulphate a day, which the article says is a dose, this amount would supply about 340,000 addicts annually. At 6 grains per day, the figure we have set, it would supply 566,000 addicts, and leave none to be used for medicine. This 1,415,000 pounds is produced for 800,000,000 people, including those in the United States.

Senator RANSDELL. May I ask you where you get those figures for the production in all the world; are those accurate?

Doctor KOLB. Before the war we got very accurate statistics from all the countries, except China. Since the war we get accurate statistics from India, but the production there and in Persia and Turkey has fallen off, and as I said, our official consular figures show a less amount than the League of Nation figures, which for some of the countries are only approximate. They apparently are assuming that production in Persia and Turkey is getting back to the pre-war level.

Senator RANSDELL. What do you say as to synthetic opium from coal-tar products?

Doctor KOLB. It is not being made. Theoretically it is possible, but practically it is not being done. It would be a complicated, expensive process and to be practical you would have to make it pay. There isn't any opium or heroin being made out of coal-tar products.

The CHAIRMAN. You mean, it is a mere laboratory process?

Doctor KOLB. It is a laboratory process.

Senator RANSDELL. When you speak of morphine, you mean heroin?

Doctor KOLB. Yes; it is made from morphine. And heroin is only used extensively by addicts on the northeastern seaboard of this country. The 76,000 ounces of heroin which Captain Hobson thinks was used in one year in New York would supply about 10,000 addicts at the dose he has given. It may be true that this amount was disposed of, because addicts go to the places where they can get it, and some I have examined have told me that they went regularly to New York to get the drug.

Senator FESS. Have you any statistics as to the number of addicts in China or India, or anywhere else?

Doctor KOLB. No; but the incidence of addiction in India must be smaller than is generally supposed, because the per capita con-

sumption is only 26 grains a year. They use it differently; they take the drug by mouth as opium and in smaller doses than addicts who use morphine or heroin. China is the worst addicted country. And the Chinese are the greatest users of the drug.

This article says that positively 5 tons of opium is sufficient for the medical needs of the world. That means one-hundred-and-fiftieth grain of opium, or one one-thousand-five-hundredth grain of morphine, for each inhabitant in the world every year. The dose of opium when taken as opium is from one to two grains. The 5-ton estimate is absurdly low. If we gave this whole 5 tons to the United States, to our 106,000,000 people, it would mean two-thirds of a grain per capita a year, and yet this article makes a positive statement that 5 tons is sufficient for the medical needs of the entire world.

Drug addiction has been decreasing in this country since 1900, and it has been rapidly decreasing since the Harrison law went into effect in 1915. I have interviewed hundreds of physicians all over the United States, and those interviews confirm the evidence shown by the surveys and the available drug supply.

This article cites a survey made by Doctor Terry, in Jacksonville, in 1913, which shows that 1.30 per cent of the population of Jacksonville were addicts. Doctor Terry's report shows that they treated transients in Jacksonville. They then had a law in force that made it possible for addicts to receive prescriptions for narcotics free of cost, and many addicts went there for the purpose of receiving treatment. That in part accounts for the large number.

The Harrison law went into effect in 1915, and to show how drug addiction has been decreasing since 1915, I will cite a survey made in 1919 which found 111 addicts in Jacksonville. Formerly it was about 880, I believe. I have a letter from Doctor McDonald the present health officer and he says they are now treating 20 in Jacksonville. He knows of a few more who are depending on peddlers, and he says that possibly there are 50 others that he has no knowledge of. This shows how drug addiction is decreasing.

Senator FLECHER: Have you any information as to the rural districts?

Doctor KOEHL: As to the rural cases, there are practically none, except some old people who were addicted a long time ago, because of drugs administered when they were in pain, and who might die or be made invalids if you would now take the drug away from them. But I have asked physicians by the hundreds in the rural districts, "How many addicts have you seen and treated?" And some of them never had one in their entire practice, and their practice usually takes in from 1,500 to 2,000 people. In the rural district where I used to live with a population of about 2,000 people, there was only one and she has left the community in order to live in a city where she could get the drug. There is no addiction to speak of in the rural districts.

The article cites Doctor Bishop as saying there were 100,000 addicts in New York City in 1918. He may as well have said a million because he had no information to go on. The first narcotic survey of New York was made the following year. It showed less than 8,000 addicts. The statements of an alarming nature about drug addiction that appear from time to time are the statements of people who have become excited through having gathered their

information from inflammatory headlines or articles in magazines or newspapers.

And the same is true with reference to the stories that appear in the newspapers from time to time to the effect that hundreds of thousands of dollars' worth of narcotics have been captured. The official figures of the Bureau of Internal Revenue show that it can not be true. In 1922 they got about 4,000 pounds, and in 1923, 500 pounds of these drugs, and of their preparations and the cocoa leaves. Mind you, these figures include the preparations. If one grain of opium is dropped into a gallon of water, that will be said to make it all opium because it is a preparation of opium.

Captain Hobson introduces a figure here which he does not understand, about the 6,000,000 ounces of narcotics being imported, as against 2,000,000 in a previous year. That is true, but the increase was due to cocoa leaves, which have about one-half of 1 per cent of cocaine. There was an actual reduction in the amount of narcotics imported, although there was an increase in the importation of cocoa leaves, and this explains the figures which he refers to.

The statement is made in the article that these narcotics are hydrocarbon poisons. They are not hydrocarbons, but alkaloids, which are entirely different.

Now, as to crime. The paper quotes W. G. Shepherd, and some articles I have read carefully that he wrote in the American Legion weekly magazine. Mr. Shepherd's figures show that there was a relative increase of 1.7 per cent in the inmates of the work-houses and jails between 1910 and 1920, and he undertakes to explain why this is. For instance, he cites the prohibition law in which there have been some 70,000 prosecutions, and some 3,000 years of sentences imposed for the violation of this law; that is, they have sent numerous cases to prison. The recently enacted narcotic laws which he does not mention are being rigidly enforced, and these have sent to prison even more than the prohibition law. In 1923 there were more than 4,000 convictions for violations of the narcotic laws resulting in over 4,000 years of penitentiary sentences. These people did not go to jail because they committed rape or robbery or some other crime. They went because they had some narcotic in their pockets or sold some in violation of law, and such cases account largely for the increased population of the jails and penitentiaries. That explains the cause of the large increase in crime—a new crime has been created by law. The fact is there is less crime, and I think a lot of this excitement and misunderstanding about drug addiction has been due to the fact that the jails are full of drug addicts. The explanation is that we put them in jail now, and we did not do it before.

The drug does cause moral deterioration in addicts. It does it in this way: In effect opium causes lethargy and inactivity, and energy and ambition is diminished. If a hard-working man becomes addicted to large doses of the drug, he will not work so hard. And he will stop working some days in order to go looking for the drug because he feels badly without it. He also necessarily associates with evil people. That is why he became an addict in the beginning. In this way a man who was self-supporting without opium becomes a dependent, and, of course, he lies to get it and does other antisocial things which bring about a gradual decay of his moral sense.

I was quoted by Captain Hobson as saying that 1 gallon of alcohol would produce more crime than a ton of opium. That was not my statement. I said a single gallon of alcohol has more potentialities for violent forms of crime than a ton of opium. I repeat that, and my psychiatric studies prove it. The drug saps the vitality of a criminal as well as the vitality of everybody else who uses it. In other words, if a man is a bricklayer it makes him a less efficient bricklayer, and if he is a criminal he becomes a less efficient criminal. No form of opium impels a man to commit violent crime. It does exactly the opposite. An illustration of this common-to-all cases is furnished by the statement of an addict's wife, who said to me that when her husband is full of heroin she can wind him around her finger, but at other times he is mean as can be. I have examined hundreds of addicts and all of them react this way, with loss of energy and ambition; and if they had been steady workers in any line when they became addicts they stopped work altogether or worked with less efficiency. Cocaine is different. It stimulates a criminal and makes him more efficient in the commission of crime when taken in small doses. In large doses this drug brings about a state of anxiety which causes the addict to think he is being watched and followed. I have known a man overcharged with cocaine to look in a bureau drawer for policemen; others have walked all night to escape from imaginary policemen and later reported that they saw one behind every tree. This is not the kind of madness that causes one to drive up to a bank in broad daylight and rob it. It causes one to run away.

Senator RANSELL. What about the heroin addict?

Doctor KOLB. He has no impulse to commit violent crime. When overcharged he goes to sleep.

Senator RANSELL. He is not an egotist?

Doctor KOLB. No; we will come to that later, if you are interested in it. Inflation of the ego is a phrase that was thrown out by somebody. It is correct in a way, and it sounds good, so others use it without understanding what it means.

Senator FLETCHER. The use of this drug does not produce violence?

Doctor KOLB. It does not produce violence. When you come in personal contact with these addicts and study their life histories, you can tell more than you can by reading the headlines in the newspapers.

To return to Mr. Shepherd: He writes a very sensible article until he comes to the subject of violent crime. He starts off here by saying that there are 18,000,000 men in this country between 18 and 35, and that 1,500,000 of them are addicts. That means 1 in 12. When we went into the war we had boards that examined men of this age group. They found less than 1 in 1,000. This is the difference between the fiction and the facts about drug addiction—instead of 1 in 12, there was less than 1 in 1,000.

There was a margin of error in the Army count, which we have discussed in a paper to be published shortly, but it was not great. Pearce Bailey, one of the best authorities in the country on social psychiatry, had charge of the neuropsychiatric section of the Army. He wrote about drug addiction in the draft army before his death, and remarked that they were told by persons specially interested in

the subject to look out for 500,000 addicts. The actual count was less than 3,500.

Senator RANSDELL. How many do you say they found?

Doctor KOLB. Less than one in a thousand. In the paper that is coming out in a few days we will show the incidence of addiction among those people that we are led to believe are being addicted at the rate of 1 in 12. As a matter of fact there are about one in a thousand. My cases show an average age for the addict of about 35 years. The figures for some of the surveys are about 39 years.

Senator PEPPER. That is the average?

Doctor KOLB. That is the average age.

Senator PEPPER. Is that the average age at which the habit is contracted?

Doctor KOLB. No; often it is contracted earlier than that, but that is the average age now.

Senator RANSDELL. How long have you been specializing on this subject?

Doctor KOLB. About six years. I have been a psychiatrist ever since I have been in the Public Health Service.

Senator RANSDELL. How long is that?

Doctor KOLB. About 15 years.

Senator FLETCHER. You would say these bandits and holdup men and people of that kind who do desperate things, are more likely influenced by bad liquor than by bad drugs?

Doctor KOLB. Absolutely. Liquor makes a man mad.

Senator SHIPSTEAD. Moonshine liquor?

Doctor KOLB. Any kind of liquor has this effect on certain individuals. More than 30 years ago Norman Kerr, a great English writer on inebriety, pointed out what is now a commonly observed fact, that whisky maddens a man while opium soothes him. And it is absolutely true that one gallon of whisky contains more potentialities for violent crime than a ton of opium.

As to the addiction of young children, I personally do not think there are in the United States more than 25 normal people under the age of 14 who are addicts. I took this matter up with the superintendent of schools of the State of New York recently, and he said they had none. He also showed me correspondence from the superintendent of schools in Texas relative to a report about addicts in the Texas schools. Inflammatory reports had been built around the fact that one Mexican boy, no longer going to school, was an addict. This boy was about 17 years of age.

The statement is made that heroin addicts have a mania to make addicts of others, in contradistinction to those who are addicted to other forms of opium. Heroin has exactly the same effect as morphine. I treat heroin addicts here in Washington at the Gallinger Hospital, and they send others, their friends, to the hospital for treatment after they themselves have been treated and even after they have relapsed. That has happened month after month in quite a few cases. The peddlers who have the drug will sell it, but the man on the street who is an addict will advise others to go and take a treatment. I do not believe there are many persons who are starting the habit to-day, except certain people who because of painful conditions are necessarily treated with these sedatives and a certain

type of neurotic and criminal psychopaths who, when they once take the drug, get a sensation which causes them to go back for more. There is a drug problem here because there are 90,000 more addicts in this country than we ought to have to-day. I estimate that as a result of legitimate and necessary medical practice there should be about 20,000 addicts in the United States.

Senator PEPPER. Do you mean by that that the permissible and legitimate use of the drug by way of prescription will leave as one of its by-products—

Doctor KOLB (interposing). Yes; in other words, it would be inhumane not to give them enough drugs to cause them to become addicts.

Addicts can be cured, although this article says that addiction is as incurable as leprosy. The reason some cases relapse so often is because they are psychopathic. Some of them are like the drunkard who beats up his wife while drunk and then takes the pledge never to drink any more, but who is drunk again the next week; or, like the business man who goes on a spree every few months. It is difficult to explain why this is, but such patients have a psychopathic character and they are likely to relapse sooner or later.

As to inflation of the ego, these drugs do have that effect on some neurotic individuals. Such persons have doubts, anxieties, and feelings of inferiority. They meet life on a lower emotional plane than normal individuals and do not get as much out of it. When such an individual gets loaded with whisky or takes a large dose of opium the narcotic effect is to remove his doubts and make him at ease with the world. He interprets this feeling as pleasure and the inflation of the ego is simply this: There is no impulse to violence and there is nothing in the effect of opium to make a man think he is a hero.

Senator FLETCHER. Where does this drug get its name of heroin?

Doctor KOLB. I don't know. That was given to it by a German author. I read something some time ago to the effect that it came from the word "hero," but that is not true. It was laughed at, at any rate, when I took it up with some of my colleagues.

We had at the Waukesha Hospital psychopaths who were addicted and psychopaths who were not. These are the patients who cause trouble in the veterans' hospitals. They are generally unruly and write letters to Washington telling how they are abused. I have had a psychopath receiving compensation from the Government write home to his poor washerwoman mother asking for money, and she sent it. By his side would be a psychopathic addict who would do the same thing. When a character like this takes opium it does not cause much moral deterioration, because he does not have much room to descend in the moral scale. I feel sure that the boys who committed that crime in Chicago the other day are psychopaths, and if they ever became addicted, cure would be next to impossible.

We made a survey in Allegany County, Md., recently to determine the amount of narcotic being prescribed. It was found that when the Harrison law was passed there were 43 addicts in the county. These were treated, and the next year 39 of them were still off the drug.

When you ask doctors throughout the country about it they will tell you that they had addicts in their practice, but the Harrison law has helped to cure them. And the Harrison law is helping to cure them now. Before this law was passed the doctor would give his patient a prescription for narcotics that in some cases would make the patient feel good, with the result that he would go to the drug store and have the same prescription filled again and be innocently addicted before he knew it; but now this can not be done, because prescriptions for narcotics can not be refilled.

A large number of normal people got cured when the Harrison law went into effect, because they could not buy the drug legally, and being law-abiding citizens they make no effort to buy from peddlers as did the abnormal people of a nervous type. I do not say that these people are criminals, but they have abnormal cravings which have caused them to relapse time and time again.

I have examined a number of doctors who are or were addicts, and some of them had been cured two or three times in their careers, but as soon as they came back to work they felt weak, had a little diarrhea or shortness of breath and were unable to sleep. Rather than continue with this until completely well, they often relapsed in order to be able to keep up with their work. Recently the Narcotic Bureau, by threatening them and taking away their license to handle narcotics has brought about a number of permanent cures, because these doctors now have the additional motive to avoid disgrace and prosecution.

The work that Mr. Porter, of the House, is trying to do will solve the problem of addiction if it is successful.

Senator RANSELL. Is it a fact that there is a greater percentage of addiction among doctors than there is among any other class?

Doctor KOLB. I rather think that there is more addiction among the doctors, because they know about the drug and can get it, whereas the business men can not get it. The doctor tempts himself and falls a victim.

Senator RANSELL. Is it due to the life they lead, due to the loss of sleep, and the need for stimulation?

Doctor KOLB. That is it, I think. They have simply taken the drug and become addicts unintentionally, and when a normal man does become addicted this way they are no more morally deteriorated than they were before, but they are harmed physically, and these men always feel better after they get off the drug than before.

Reference is made in the article to the matter of destroying sex power. Unfortunately that is not true. This drug causes an abatement of sex power and desire in all cases, and in large doses it completely abolishes it for the time being. This is the only good thing that drug addiction does. The psychopath takes very large doses and has no sex desire as long as he continues. The result is that numerous unstable people, criminals, and epileptics, who might be brought into the world, are not born. But, unfortunately, as soon as he stops the use of the drug his sex power returns. I have examined a man who has been an addict for 35 years, who has a family of 10 children. I have examined another man who has been an addict for 30 years, and who has a family of five good children; but these men were normal. This shows that there is no permanent abolishment of sex power and desire.

Mention is made in the article about immunity—that is, that the drug causes an antitoxin to be formed in the body, which itself causes the symptoms when the drug is taken away. That is a theory that has been abundantly disproven in the Hygienic Laboratory and elsewhere.

Mr. HOBSON. What theory have you to take the place of the antitoxin theory?

Doctor KOLB. There is no adequate theory to explain how tolerance is brought about but it is a fact that the antitoxing theory has been disproven. We can show how the drugs cause these withdrawal symptoms, if it is of any interest to the committee. When these opiates are taken, the effect at first is like putting a flywheel on an engine that was running normally without it. The man is slowed up, but after a while he runs normally with the drugs. Then when you take him off everything is exaggerated; every sound is interpreted as the firing of a cannon; every pain is 10 times more painful; water runs out of his eyes; he sweats; has diarrhoea; can not sleep, etc. There is an overactivity of all bodily functions because the check has been taken off. This causes pain and it takes some time for the body to readjust itself. It does not become normal at once. The primary cause of tolerance is being investigated. No definite statement can be made about it now.

This drug does not feed upon the fats covering the nerves, as is stated. There was a theory to the effect that in this way it made men nervous by denuding the nerves of their fatty covering, but that theory is not sound basically. It resulted in the invention of a stuff for treatment called lipoigen, and we tried it out at Waukesha, but got no good results. In fact, it was of no value at all, because it was based on a theory that is entirely wrong.

Senator PEPPER. How do you spell that?

Doctor KOLB. I think it is l-i-p-o-i-g-e-n. I don't think it is used at all now.

As to the addicting properties of heroin, the idea that one grain of heroin is enough to produce four addicts is simply absurd. It is not true. And the idea that one ounce can produce 2,000 addicts is also not true. A normal man who takes morphine or heroin over a couple of months and suddenly stops will feel a little bit uncomfortable; he won't sleep for a couple of nights, but unless you tell him he has been taking the drug he won't know anything about it. And even if you told him so he would not become addicted if the drug is stopped, because it brings about no permanent change which requires its continuance. I know a doctor, a very stable sort of man, who during an illness took morphine daily for six months, and he stopped right off without the slightest difficulty. That is the experience of other physicians. These drugs will cause addiction in normal people if taken long enough, but the idea that you can make a serious addict of one by giving him 10 grains of morphine is simply foolish. It can not be done.

Senator RANSDELL. How long a period would it take to make an addict of a normal man?

Doctor KOLB. Well, as I said, in two months if he stops taking the drug he will be restless.

Senator RANSDELL. If he keeps constantly at it, you mean?

Doctor KOLB. Yes; if you give him a quarter of a grain per day for two months, or even less time than that. If you keep that up for six months he will have quite a little difficulty in getting off the drug.

Senator FLETCHER. How about the effect of heroin on a child of 14 or 15?

Doctor KOLB. The effect would be exactly the same.

Senator FLETCHER. Will six doses produce an addict in that case?

Doctor KOLB. Six doses will never produce an addict, except in this way. One dose will produce an addict sometimes in the case of a psychopath if the dose is large enough, because it gives him a certain sensation, and he goes back after that sensation again. These drugs do not cause any protoplasmic change in the nervous system; there is no degeneration of the nervous system whatever. The statistics of insanity clearly show this. In a count made several years ago of inmates of insane asylums, only .15 of 1 per cent were drug addicts. Contrast that with alcohol, which is responsible for from 3 to 20 per cent. Alcohol causes destruction in the nervous system when taken in large quantities.

Cocaine will cause an acute insanity, with delusions such as I have described before. If addicts charge themselves long enough with cocaine, they develop this insanity, but it is usually quickly over with. This is not true in all cases; there are some permanent cases of cocaine insanity. It is a much more destructive drug than either morphine or heroin.

Senator FLETCHER. What is your belief, Doctor, in regard to the case of a normal boy of high-school age who is led to take a sniff or other dose of heroin?

Doctor KOLB. Well, he would not know he took it unless the dose was large or he was told about it. If he was fed heroin in ice cream for a week he would not know it, and it would not do him any more harm than if it had been pure ice cream. He simply would not know it; that is how much effect it would have. There are no boys being addicted to-day, except in extreme psychopathic cases.

I have only seen one girl below 14 years of age who was an addict. I will give you her history, to show what a psychopathic character she had. She had fits when she was young, and she was neglected and allowed to run on the streets. At 12 years of age she ran away with a man. She was found and returned to her parents in a couple of days. A short time after that she became addicted. Two years later she disappeared again, and when I saw her she had been stone-blind drunk for three days down at some low dive. She had in the meantime taken a little bit of heroin when she could get it, but had been drunk pretty nearly all the time for two years.

That is the kind of children that are becoming addicted to-day, if there are any. And there is nobody lying around waiting to give heroin even to them. Addicts are generous and will give it to other addicts, but not deliberately to that kind of person. I have had experience with these addicts, and I know that some of them are a pretty good sort, though I would not advise you ever to trust one, because if a man becomes an addict it shows as a rule that in the beginning he had some basic instability. But this is not true in all cases.

Senator RANSDALL. Well, do all peddlers use their own drugs?

Doctor KOLB. The peddlers buy their drugs from anybody they can, and then come down here and dilute them.

Now, here is the explanation why heroin is becoming more popular as compared with morphine in the eastern section of the United States. Here is an ounce of morphine, and here is an ounce of heroin. You see, by reason of the smaller bulk of the heroin they can smuggle it better, and conceal it better, therefore there is a less chance of having their smuggled product seized when it comes in a small package like this [shows two 1-ounce bottles; morphine bottle five times as large as the heroin bottle.]

I have examined numerous heroin addicts, who are heroin addicts simply because they can not get morphine. They like morphine better, but the peddlers prefer to handle something that is more easily concealed.

Senator FLETCHER. What is the effect of heroin on the brain?

Doctor KOLB. Heroin causes a slight stimulation. In that respect it is different from morphine. It has no permanently deteriorating effect on the brain whatever. I treat heroin addicts right along, and they are just exactly like the morphine addicts. I have examined morphine addicts in Atlanta and different parts of the South. The morphine addicts in San Francisco and Chicago and of the Western and Southern States are exactly like our heroin addicts in New York, Philadelphia, Baltimore, and Washington who have gone to heroin merely because they could not get the morphine, not because the heroin produces any particular inflation of the ego as compared with morphine.

Senator PEPPER. Well, Doctor, even on the figures as you give them, the use of these drugs is a social menace, is it not?

Doctor KOLB. It is. It is a menace. There are 90,000 more addicts than there ought to be, and they are worse because of it.

Senator PEPPER. Is there any way, as far as you can see, that the Committee on Printing can cooperate with other agencies of the Government in helping to solve the problem? And, particularly, would we be helping to solve the problem by disseminating the information contained in this pamphlet?

Doctor KOLB. I wanted to speak about the distribution of that pamphlet. Addiction is really a very rare thing throughout the United States. Some people have never heard of it, and they are not afraid of it. The tone of the article is that you are surrounded by something that is going to capture you and make a criminal out of you. Now, this thing would go out to numerous neurotic, fearful, nervous people, people who are just on the border line of insanity. I have talked to psychiatrists about it, and they agree with me that there will be a number of dementia præcox cases produced among such cases if the article is distributed throughout the country. Of course, some people will believe it, and especially neurotic individuals who are already suspicious and feel inferior, and think everybody is trying to put something over on them. Every one of them who reads the article and believes it must believe that he is surrounded by people all the time whose only idea is to make him an addict. Those people develop serious nervous symptoms from slight causes, and the fear aroused by this thing will undoubtedly cause numerous cases of insanity.

Another thing to be considered is the effect on psychopathic individuals. A psychopath is a man who acts on impulse; he does not have the inhibitions that the rest of us have. He does not see the necessity of conforming to organized social customs. He tries everything, and he gets unusual sensations from stimulants of this kind. Among the psychopaths who have not previously heard of the drug there will be many who will attempt to experiment with it, and if they ever experiment for three or four doses they will look for more.

So I think the direct effect of the article would be to create a certain number of cases of severe neurosis and insanity and a certain number of cases of addiction by reason of the fact that the psychopath will want this new sensation. He does not care how harmful it is; he wants to try it, just as some of them commit murder for the thrill of seeing somebody die.

The addict problem has been decreasing in the United States. There are 110,000 of them, but that is 90,000 too many, and it would be unfortunate to do anything to set back the work already done.

Senator FLETCHER. How are you going to control production?

Doctor KOLB. That is the point. If we can do it, that is the solution.

The CHAIRMAN. They have been trying to do something in that direction at the Geneva conferences.

Doctor KOLB. Yes; they are discussing that right along.

Senator MOSES. And the great question with representatives of the British Empire has been, as I remember, what they call medicinal and necessary production, or legitimate and medicinal production.

Doctor KOLB. Here are copies of some tables that I got up giving statistics as to the importation of opium, etc., since 1860.

The CHAIRMAN. You may put those tables in the record.

Doctor KOLB. There is a Public Health Report coming out in a few days, discussing in a dispassionate way the subject of drug addiction in the United States, which will contain a part of those tables.

Senator FLETCHER. Is it your opinion, Doctor, that this article would not serve as a warning?

Doctor KOLB. It would serve in a way as a warning, but I think the harm that would result would offset the good that would be done. I do not think there would be many addicts made because of the article, but there would be some.

Senator FLETCHER. Do you see any occasion for distributing it among the schools?

Doctor KOLB. I surely do not. As I have said, I think it would be a very serious assault on the mental health of our people, and especially on suggestable children. To begin with, children are not being addicted to-day, and no one is trying to addict them. I make this positive statement, in spite of all the statements made here to the contrary. Some of the statements about the number of addicts are simply absurd; the opium does not exist to supply them.

Senator RANDELL. Doctor, as a member of the Public Health Service I suppose you feel that your service ought at least to go very carefully over any literature on the subject of health that is to be given out by the Government and disseminated among the American people?

Doctor KOLB. I should think it would be desirable, especially the literature which is gotten up by laymen. Of course there is a lot of medical literature gotten up by doctors who are just as competent as the Public Health Service to get it out.

Senator RANDELL. Yes; but you are the public health agency for the Government.

Doctor KOLB. Yes; and anything that the Government wants to put out I think should be handled in that way.

Senator RANDELL. I should think the Government agencies would want to supervise it.

Doctor KOLB. I think it ought to be reviewed by the Public Health Service. Education is all right, but it ought to be the right kind of education.

Senator SHIPSTEAD. What was the result of that campaign of the Public Health Service with reference to venereal diseases during the war?

Doctor KOLB. I think it had a very good effect.

Senator SHIPSTEAD. I thought that was very good.

Doctor KOLB. Yes; there were numerous clinics established throughout the country and an educational campaign carried on.

The CHAIRMAN. Is that all, Doctor?

Doctor KOLB. That is all I have to say, unless there are some questions.

(The tables submitted by the witness are here printed in full, as follows:)

Number of addicts per million population which annual importations of opiates would supply

Decade	Population of the United States	Number of addicts which opium (over 2 per cent morphine) and opium alkaloids would supply with 6 grains morphine sulphate daily	Number of opium smokers which could be supplied at 21 pounds per year	Total number of addicts who could be supplied	Number of addicts per million population which total represents
1860-1869	34,000,000	44,143	8,470	54,613	1,606
1870-1879	44,000,000	77,410	19,219	96,629	2,196
1880-1889	56,000,000	135,221	34,395	169,626	3,029
1890-1899	68,000,000	309,023	39,985	246,008	3,617
1900-1909	83,000,000	195,278	59,267	254,545	3,066
1910-1919	98,000,000	151,671	None.	151,671	1,547
1920-1923	106,000,000	57,856	None.	57,856	540

Smuggled opium must be reckoned with after 1915, and no allowance has been made for opium exported from the United States.

Opium and opium alkaloids entered into the United States for consumption

Decade	Population of the United States	Opium (over 9 per cent morphine) entered for consumption annually	Opium (smoking) entered for consumption annually	Opium (total) entered for consumption annually	Opium alkaloids entered for consumption annually	Number of addicts which opium (over 9 per cent morphine) would supply with 6 grains morphine sulphate daily	Number of opium smokers which could be supplied at 2½ pounds per year	Per capita consumption on opium basis
		Pounds	Pounds		Ounces			Grains
1860-1869	24,000,000	110,305	21,176	131,481	523	44,143	8,470	31½
1870-1879	44,000,000	192,602	48,049	241,307	2,296	77,410	10,219	38½
1880-1889	56,000,000	328,392	85,988	414,381	20,212	185,221	24,895	53
1890-1899	68,000,000	513,070	92,482	605,533	20,193	209,023	35,985	62½
1900-1909	82,000,000	480,009	148,168	628,177	17,511	195,278	59,267	53½
1910-1919	98,000,000	398,051	None.	398,051	27,143	151,671	None.	27½
1920-1923	106,000,000	144,805	None.	144,805	5,292	57,856	None.	9½

(Additional evidence submitted by Doctor Kolb.)

THE PREVALENCE AND TREND OF DRUG ADDICTION IN THE UNITED STATES AND FACTORS INFLUENCING IT

By LAWRENCE KOLB, Surgeon, and A. G. DU MEZ, Pharmacologist, United States Public Health Service

INTRODUCTION

There have been published during the past decade many estimates of the number of persons in the United States addicted to the use of narcotics. The numbers estimated range, in round numbers, from 100,000 to 1,000,000 (1-6.) Some of the estimates are mere guesses, as they were based on nothing tangible, but most of them represent sincere attempts to arrive at accurate figures. All, however, are open to criticism on the ground that they are based on insufficient data, or that not all of the pertinent factors were taken into consideration. For the same reasons the published statements in which it is asserted that the present trend of addiction to narcotics in this country is upward are subject to criticism.

Owing to the lively interest which has been taken in the problem of addiction to narcotics throughout the world since the end of the World War, and as a result of the enactment of new laws for the more rigid control of narcotics in this country, there have been made available additional statistics on the traffic in narcotics and on certain other phases of addiction. It is believed that the proper interpretation of these statistics and their application to the problem in hand make possible a more accurate estimate of the number of narcotic addicts in this country than any heretofore published, and serve as a means with which to determine accurately the trend of addiction. For these reasons, the study herein reported was undertaken.

NUMBER OF ADDICTS

It is realized that it is impossible at the present time to make an exact count of the persons addicted to narcotics in the United States, in an individual State, or even in one of our larger cities, because of the social and legal factors tending to make addiction a secret practice. It is believed, however, that it is possible, by utilizing all of the information now available, to delimit the number by certain maximum and minimum figures. With this object in view, a number of the more important narcotic surveys made in recent years were analyzed; also the reports made by agents of the Bureau

of Internal Revenue and other persons on the narcotic clinics conducted in different parts of the country; statistics on the dose of addiction, world production of narcotics, and the quantities imported into this country were compiled and studied; and numerous physicians in different parts of the country were interviewed in person to ascertain the number of addicts they were treating in the course of their practice. The results of these analyses and studies follow.

1. NUMBER BASED ON NARCOTIC SURVEYS AND CLINIC REPORTS

Tennessee survey (4).—One of the most complete surveys of drug addiction for a large community was made in Tennessee by Lucius P. Brown, State food and drugs commissioner. In 1913 Tennessee passed a law regulating the sale of narcotic drugs and under it regulations were made which provided for the refilling of prescriptions for persons addicted to opiates. The purpose of these regulations was to minimize the suffering among addicts and to keep the traffic in opium from going into illegitimate channels. In order to obtain a regular supply, addicts were required to send to the pure food and drug inspector their own affidavit accompanied by one from a physician certifying as to their addiction and giving certain other information. In the discretion of the board of rules and regulations a permit would then be issued authorizing the refilling of the prescription. This permit would be surrendered by the addict to a pharmacist, who was required to make a copy and return the original to the food and drug inspector.

On January 1, 1915, after 12 months of operation, there were 2,370 persons of various ages, white and negro, registered under this system. Commissioner Brown was of the opinion that all of the addicts in Tennessee had not registered, and he fixed 5,000 as the probable number in the State. Using this figure as a basis, he estimated 215,000 for the entire country. He then added 25 per cent to allow for conditions which he thought existed in more thickly settled communities and arrived at 269,000 as the possible number of addicts in the United States.

Treasury Department survey (5).—A special committee appointed by the Secretary of the Treasury in March, 1918, made the most comprehensive survey of drug addiction that has yet been made in the United States. One of the means used by this committee for securing information consisted of sending out questionnaires. For the purpose of ascertaining the number of addicts under treatment questionnaires were sent to every physician registered under the Harrison Act, and replies were received from approximately 30 per cent of them. A total of 73,150 addicts was reported. If there had been 100 per cent replies, with the same average maintained, there would have been shown to be 237,655 addicts under treatment for the entire country.

Pennsylvania survey (7).—In 1917 there was created in Pennsylvania a bureau of drug control, operating under the State narcotic law. A survey made by this bureau shows that in 1922 there were treated in the hospitals and State institutions of Pennsylvania 1,652 addicts. For five years this bureau industriously collected the names and addresses of drug addicts living in Pennsylvania, and in that time they obtained less than 9,000 names. The chief of the bureau estimated that, counting the aged and infirm addicts and all persons who necessarily use narcotics for incurable diseases, there were not more than 20,000 habitual drug users in the State.

On the basis of the 1922 census and 20,000 addicts for Pennsylvania, there would be a total of approximately 242,000 addicts in the United States.

United States Army findings (8).—The mobilization of man power following our entrance into the World War was a means of furnishing the country with valuable data concerning various diseases of young men and the conditions which disable. Data on addiction to narcotics were among the information thus obtained. Up to May 1, 1919, there had been recommended for rejection because of various mental and nervous diseases, 72,323 men out of a number approximated at 3,500,000 (9). Among those recommended for rejection, only 3,284 were drug addicts. Col. Pearce Bailey, chief of the section of neurology and psychiatry, in commenting on this, states that some persons particularly interested in drug addiction had warned them to be prepared for 500,000. He also intimates that there was very little traffic in drugs in the camps in this country and in France, as practically no cases of drug addiction were reported among the soldiers. He points out that access to drugs by the soldier was not

easy, and "addicts, if they had been in France, cut off from the drug, would have been found inevitably in the hospitals."

The Army rate, if applied to the entire population of this country as shown by the 1920 census, would give a total of approximately 99,500 addicts in round numbers, but this rate, for obvious reasons, can not be applied to the country as a whole.

Clinic reports made by revenue agents (10).—Early in 1919 there was a feeling among some members of the medical profession and officials in different parts of the country that it would relieve the suffering and distress of addicts who had been deprived of legal means of securing narcotics if a cheap source of supply was made available to them. In response to this feeling a number of clinics were opened and operated in different parts of the country for a variable period of time. Some were operated for a few months only, while others remained in operation several years.

The Narcotic Division of the Bureau of Internal Revenue has in its possession reports on 44 of these clinics, 34 of which contain statistical information relative to the number of addicts treated, etc. These records have been reviewed and the data compiled therefrom are presented, together with the population of various cities in which the clinics are held, in the following table:

TABLE 1.—Number of addicts attending clinics

City	Population 1920 census	Number of addicts	City	Population 1920 census	Number of addicts
California:			New York—Continued.		
Los Angeles.....	576, 673	481	Hornell.....	15, 025	16
San Diego.....	74, 683	179	Middletown.....	18, 420	30
Connecticut:			Oneonta.....	11, 582	37
Bridgeport.....	143, 555	79	Port Jervis.....	10, 171	17
Hartford.....	138, 036	105	Rochester.....	295, 750	160
Meriden (city).....	29, 867	2	Saratoga Springs.....	13, 181	12
New Haven.....	162, 537	80	Syracuse.....	171, 717	92
Norwalk (city).....	27, 743	19	Utica.....	94, 156	25
Waterbury (city).....	91, 715	86	North Carolina:		
Georgia:			Durham.....	21, 719	36
Atlanta.....	200, 616	515	Ohio:		
Augusta.....	52, 584	42	Youngstown.....	132, 358	65
Macon.....	52, 995	52	Rhode Island:		
Kentucky:			Providence.....	237, 595	175
Paducah.....	24, 735	35	Tennessee:		
Louisiana:			Knoxville.....	77, 818	154
New Orleans.....	387, 219	250	Memphis.....	162, 351	325
Shreveport.....	43, 874	419	Texas:		
New York:			Houston.....	138, 276	122
Albany.....	113, 344	120	West Virginia:		
Binghamton.....	66, 800	32	Clarksburg.....	27, 869	49
Buffalo.....	506, 775	250	Total.....	4, 182, 952	4, 123
Corning.....	15, 820	22			
Elmira.....	45, 393	10			

Most of the clinics were opened in 1919 and most of them were closed before 1921. One closed in 1923 and one still operates in a modified way.

In compiling the above figures from the reports, the highest number of addicts recorded at any one time or in a certain year are given. For instance, if at the time of inspection the clinic was taking care of 125 addicts and the records showed that 300 had been given narcotics in the course of the year, or the life of the clinic, if in operation for less than year, this particular clinic was credited with 300 addicts. Or, if a statement was made that there were a certain number of addicts in the city, as in the case of Shreveport (419), the highest figure given was used. No reduction whatever was made in the totals for transients, although the reports show that many of the clinics treated addicts from distant as well as near-by places.

The table shows that there were 4,123 addicts in 34 cities having a total population of 4,182,952, or 0.98 addict per 1,000 persons. At this rate there would have been 104,300 addicts in the United States at that time.

New York City clinic (11).—A clinic not included in the foregoing list was the one located in New York City. This was one of the largest and one of the first of the kind to be opened. During the period April 10, 1919, to January 16, 1920, the New York City clinic registered 7,464 addicts. Doctor

Hubbard, director of the bureau of public health education, Department of Health of the City of New York, has written a report of this clinic and in his conclusion says " * * * the estimate of 1 per cent of our population addicted to the use of narcotic drug indulgence as a habit—addiction—is very likely greatly exaggerated."

Using the 1920 census as a basis for computation, the New York City rate would give approximately 140,000 addicts for the entire country.

Discussion of data obtained from surveys and reports.—Considered individually, the estimates of the total number of addicts in this country made on the basis of these surveys and reports might justly be characterized as unreliable. No doubt there is some element of error in each of them, but when it is considered that these surveys were made within several years of one another by persons using various methods and working independently of each other in different sections of the country, the fact that the minimum figure found was 99,500 (number based on the Army survey) and the maximum was 269,000 (Brown's estimate based on the Tennessee survey) indicates that these surveys taken as a whole are fairly reliable. All of them, except the Treasury Department, the Army, and the Tennessee surveys, involved factors tending to produce error in both directions. The others show results so similar that the errors in them may be considered to have counterbalanced one another.

Brown's survey for Tennessee, taking the 2,370 cases actually found, and not his estimate of 5,000, shows too few addicts, because it could not be expected that every addict in the State would register. The only question is, How much should his figures have been increased to represent actual conditions? He was, no doubt, the best judge of this, and his estimate of 5,000 may be considered as fairly accurate for the year in which it was made. In fact, his estimate is almost identical with the number which is obtained if the figures reported for the Memphis and Knoxville clinics in 1920 are used. These two cities, with a combined total population of 240,169, had a total of 509 addicts. Applying this rate to the whole State there would have been 5,122 addicts in Tennessee at that time. It is doubtful whether the figures obtained for two of its largest cities could justly be used to compute addiction for the State as a whole, but the records show that these two clinics were as well conducted as appears possible, and the claim made that transients were not treated was apparently substantiated by the Federal narcotic inspectors.

While Brown made what can be considered a fairly accurate estimate for Tennessee, it is believed that he erred in applying this rate of addiction to the entire country and in adding 25 per cent to allow for conditions which he thought existed in the more thickly settled communities. This is clearly shown by the Treasury Department survey and the reports on the clinics.

The Treasury Department survey showed a higher rate of addiction for the Southern States than for the remainder of the country. In this survey the computed number of addicts for Alabama, Arizona, Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, Tennessee, Texas, and Virginia¹ was 97,387. These States, according to the 1920 census, had a combined population of 29,189,730, and if the rate of addiction shown by them had been maintained throughout the country, the survey would have given 352,687 addicts instead of 237,655. Excluding Missouri and Texas from the list, the rate for other Southern States would have shown 345,044 addicts for the United States. Missouri, with only 14.2 per cent of the physicians replying, showed an unusually large number of addicts. The higher rate of addiction in the South shown by the Treasury Department survey is confirmed by the clinic surveys made from one to two years later, as well as by the Pennsylvania survey. The greater prevalence of addiction in the South, in spite of the greater possibilities for a purely delinquent type of addiction in the more thickly settled communities of the North, is undoubtedly to be attributed in part to the known value of opiates in treating diarrheal diseases, which are more common in warm climates, and in part to self-medication before the Harrison law went into effect, not only for diarrheal diseases but also for the discomforts arising from such diseases as hookworm and malaria, these diseases being much more prevalent in the States enumerated than in the remainder of the country.

Factors have been at work since 1915 which would be expected to wipe out the higher rate of addiction which the South may have had at that time. This may have happened already; but if we accept the surveys as reliable evidence that the group of States of which Tennessee is fairly representative were more

¹ South Carolina is not included because the Treasury Department survey of the State is unsatisfactory.

highly addicted in 1915 than the remainder of the country, Brown's estimate of 215,000 for the entire country, based on 5,000 for Tennessee, should be reduced rather than increased.

The Treasury Department survey was made under conditions which rendered it extremely likely that more addicts were counted than actually existed.

When this survey was started, the Harrison antinarcotic law had been in force for about three years. Consequently, addicts were having difficulty in securing a regular supply of narcotics and were forced to apply first to one physician and then to another. It is therefore likely that in many cases the same addict was reported by two or more physicians. This would also apply in the case of transient addicts. It is also natural to suppose that a number of the physicians who replied to the questionnaire sent out reported any addict living in their neighborhood, whom they happened to know, regardless of whether or not some other physician was treating the addict at the time. Here again the same addict might be reported by more than one physician. In a State like New York, where only 37 per cent of the physicians replied, the exaggeration of actual conditions by estimation of the total number of addicts at the rate shown by the replies received is likely to have been large.

Evidence that the Treasury Department's figures are high is obtained by comparing the numbers 8,180 and 37,065 reported by the committee for Tennessee and New York, respectively, with the number of registrants in those States reported by State officials. Brown's survey for Tennessee showed only 2,370 addicts registered in that State in 1913, and Commissioner Herrick, of the Narcotic Control Commission of New York State, reported that there were only 13,000 (12) addicts (in round numbers) registered in the latter State in 1920. Herrick does not state how many of these were transients residing outside of the State. The clinic surveys of 13 cities of New York having a total population of 1,375,134 showed 823 addicts. At this rate there would have been 2,856 addicts in the State outside of New York City, or 10,320 in the entire State, using Hubbard's figures (7,464) for the city.

The actual count of less than 9,000 addicts in Pennsylvania compares favorably with the figure 10,202 for this State given by the Treasury survey. This close correlation is probably due in part to the five-year period over which the count was made and would seem to indicate that 9,000 is nearer the correct number for the State than 20,000, which was considered the extreme limit by the Pennsylvania officials.

The Army findings are the most important in indicating that the youth of the country are not addicted in great numbers. This survey differs from the others in that it was confined to one sex and a particular age group. If the rate shown by these figures is applied to the entire population, it would show about 99,500 addicts in the United States. Obviously no such general application can be made of a rate obtained by a restricted survey. It is known that addiction in children below 15 years of age is practically nil. It therefore becomes necessary before using the Army figures for general application to ascertain the relative rate of addiction of the two sexes and of the age groups between 18 and 30, and 30 upward.

Bailey (8) states that the military age is the age of election for drug addiction and that there are more men addicts than women, the inference being that the difference in rates between the sexes and age groups below and above 30 are large. This is no doubt true of persons who are becoming addicted at the present time, because our laws are now preventing unnecessary addition of innocent people. Also at the time of the war the inference was true as to large cities, because conditions existed in them which attracted or perverted young adult males. In the New York City survey, for example, less than 25 per cent of addicts reported were females and 66 per cent of the entire number were below 30 years of age. If we accepted the Army rate and applied it to the population of the country as a whole under the conditions with respect to sex and age that prevailed at the New York City clinic, we would obtain a total of only 10,000 to 15,000 addicts, an estimate which is entirely too low.

In the light of the findings of other surveys it is apparent that throughout the country there is not a great difference in the rate of addiction between the sexes, and until recently it could not be stated with certainty that addiction among young adults was more frequent than among older people. Of the 2,370 addicts reported by Brown, 66.9 per cent were women and the average age of both sexes was 49 years, only 14.7 per cent being below 34 years of age. The average age at which addiction began was 37 years 10 months for the males and 37 years 6 months for the females. The percent-

age of females among 2,455 cases at the clinics was 44.25 and the average age at 31 of the clinics was 39 years for the males and 39 years 9 months for the females. Of 541 opium and opium alkaloid cases reported by Terry (13) for Jacksonville, Fla., 313 were females and 288 males.

The Army examiners no doubt missed some addicts. Bailey intimates that a few were not rejected, and it is probable a few more through shame or other motives said nothing of their addiction and were able to conceal their condition or its cause. The error introduced by these two factors must have been small, but a third factor must be considered. It is possible that a number of addicts were rejected by local boards for other conditions, and the addiction was not recorded because it was overlooked or was considered relatively unimportant. This would be especially likely to happen in severe cases of asthma and tuberculosis complicated by addiction. The rate of less than 1 an 1,000 shown by the Army figures is no doubt too low for the group surveyed, and it is impossible to estimate the extent of the error with any great degree of certainty—it may have been as much as 100 per cent.

The clinics listed herein were located in nearly all parts of the country, and it would be only natural to infer that the number of addicts in attendance might be used as a basis for arriving at a fairly accurate estimate of the total number in the country. This would be true if it were not for the fact that not all addicts living in the cities in which these clinics were established obtained their supplies of narcotics from them, and because of the fact that many of the addicts attending these clinics did not normally reside in the city in which they were located.

In the case of some of the clinics, addicts were admitted who resided within a radius of several miles of the cities in which they were located. This was probably the condition at most of the clinics, but is mentioned particularly in the reports on the clinics located in the smaller cities in New York, where addicts frequently came as far as 20 miles to obtain their supplies of narcotics. In some cases addicts living in rural districts about equidistant from two clinics would be enrolled at both. This was recorded of some of the Connecticut clinics where the distances separating them was not great.

Furthermore, since the passage of the Harrison law there has been observed to be an increasing tendency on the part of many addicts to move from place to place in search of cheap narcotics or to settle near the most available sources of supply. This is strikingly brought out in the history of the Shreveport clinic.

The Shreveport Clinic was opened in May, 1919, and closed in February, 1923. At this clinic there was established a hospital in which addicts desiring to be cured could be treated and a dispensary where morphine was supplied to those supposed to be in need of the drug. The place was, therefore, doubly attractive. The policy of the clinic with respect to the addicts received for treatment was evidently most liberal. In a report on the clinic issued June 1, 1920, it was stated: "It is the desire of the clinic to care for those addicts from the city and State, but any newcomer is investigated and passed on." That many newcomers were admitted is evidenced from the following: The clinic at Houston, Tex., closed December 1, 1919, and a report made on it by an agent of the Bureau of Internal Revenue states that 75 per cent of the addicts in attendance moved to Shreveport. On March 15, 1921, the clinics at New Orleans and Alexandria closed, and at the end of March, 1922, the chief of the Shreveport clinic reported that a total of 740 addicts (14) had been enrolled at the latter. In a report made by an agent of the Bureau of Internal Revenue in September, 1922, when only 129 addicts were being supplied with narcotics at this clinic, it was shown that some of those in attendance were from Michigan, Indiana, Missouri, Mississippi, Texas, and various parts of Oklahoma and Louisiana. They had resided in Shreveport from three weeks to three years, and some frankly stated they had come for the sole purpose of receiving drugs from the clinic. One case convicted in Texas for violation of the Harrison law came directly from Leavenworth Penitentiary to Shreveport in order to gain access to a cheap supply of morphine.

The tendency of addicts to migrate from place to place is confirmed by our own observations. One of the writers has personally treated addicts in Washington who have come for treatment from as far as Georgia and Tennessee, and other addicts interviewed have admitted receiving treatment in five different cities within a few years. We have seen addicts in Washington and Atlanta who have been on the register of the New York and other clinics. Patients have come to us within a few weeks after leaving a hospital in Philadelphia, and patients from Baltimore have told us of other addicts in that city who went to Philadelphia for treatment.

Before the enactment of the Harrison law there was apparently quite a number of pure cocaine addicts, but at the present time this type is almost invariably addicted to some form of opium as well; hence it is necessary to take these addicts into consideration from a numerical standpoint. Because of the legal and economic obstacles to a career of narcotic addiction, the person who starts with cocaine to-day either discontinues it after a short time, which is not difficult to do, or takes so much that the symptoms of anxiety it brings on impel him to resort to morphine or heroin for relief. He then quickly becomes addicted to one of these drugs, and, after that, continues with an opiate supplemented by cocaine or discontinues the use of cocaine altogether. Of 150 addicts examined by one of us, only 7 used cocaine exclusively. Four of these had been addicted for periods of from two to eight months only; the other 3 had used the drug for less than two years, but had spent part of that time in jail. The remaining 143 were addicted to opium or its alkaloids; but 50 per cent of them were either using or had been using cocaine at some time during their addiction.

In summing up it may be stated that according to Brown's survey 215,000 was approximately the number of addicts in the United States in 1915. The New York City, the Treasury Department, and the clinic surveys were made four or five years later. An objection to making a general application of the New York City survey is that the sex and age distribution of addicts shown by it does not obtain throughout the country. This was probably due in part to the fact already referred to, namely, that young addicts are attracted to large cities, and conditions exist in them which cause a delinquent type of addiction; and it is also due in part to the fact that some of the older addicts were being taken care of by physicians and were not counted when the survey was made. Just how far these two factors balance each other is not known, but the 140,600 indicated by the New York City survey in 1920 shows a reduction over the 1915 figures. The clinic surveys made at the same time or a year later took in nearly all sections of the country and comprised a more representative group of population. These surveys show 104,300 addicts. The Pennsylvania figures, collected over a period of five years and ending about a year after most of the clinics were closed, show approximately 109,250 addicts in the United States in 1922 when the actual count of 9,000 is used. The Army rate is undoubtedly too low for the particular group surveyed, and for reasons already given it can not be used for estimating addiction in the population as a whole. The 1918 Treasury Department survey, showing 237,655 addicts, apparently contains an indeterminate error of exaggeration, as already pointed out. The highest estimate based on any unrevised survey is 269,000; the lowest, exclusive of the Army survey, is 104,300. These figures may therefore be accepted as the maximum and minimum numbers for the period 1915 to 1922; but from what has been brought out relative to the surveys it would seem that somewhat less than 215,000 is more nearly correct for the beginning and about 110,000 the approximate number for the end of the period.

2. NUMBER BASED ON DOSAGE AND AVAILABLE SUPPLIES

Addiction dose.—A striking point which becomes apparent on an analysis of the estimates of the number of drug addicts in this country is that most of them were made without taking into consideration the quantities of narcotics available. In making an estimate on the basis of available narcotics it is first of all necessary to know approximately the size of the daily addiction dose. This has been determined from data obtained from the surveys, from the clinic reports, and from our own observations.

Addicts using morphine or heroin take from 2 to 60 grains daily; but the number using these two extremes is comparatively small. Many take regularly from 15 to 30 grains when they can obtain these drugs in the quantities desired. The average daily dose of morphine given at the clinics heretofore referred to, based on 1,976 cases, was $7\frac{1}{2}$ grains; but in nearly all cases the dose was smaller than the appetites of the addicts, because it was the policy to give at first only enough to maintain comfort and then reduce the amount when possible.

The usual beginning dose at the New York clinic was 10 grains, and it is stated that some patients showed unmistakable signs of suffering when reduced to 6 or 8 grains daily. At the Waterbury (Conn.) clinic, where no effort was made to control dosage, the average daily dose given each patient was 14.2 grains of morphine. An examination of 25 professional men made by one of us revealed that they were taking an average of $17\frac{1}{2}$ grains daily before they

were investigated by the narcotic division of the Bureau of Internal Revenue. After the investigation and at the time of the examination the amount had been reduced to 8½ grains daily. Fifty other cases, nearly all of whom were heroin addicts, averaged 15½ grains of heroin or morphine daily; and of these, 6 took 5 grains or less and 9 took 25 grains or more. From these three examples it is reasonable to assume that with unrestricted access to the drug the average morphine and heroin addict would consume about 15 grains daily. Many of the addicts attending the clinics complained about the amount they received, and some of them freely admitted that they bought additional supplies elsewhere. At the Memphis clinic, where the average dose was 3 grains, 60 per cent of the patients interviewed admitted buying more from peddlers. Eighty-six per cent of Brown's cases were addicted to morphine, and of these the males received 8.86 grains and the females 8.22 grains daily.

Addicts who take opium as gum opium, or in the form of laudanum, consume smaller quantities expressed in terms of the alkaloids than those who take the drug as morphine or heroin. Reduced to terms of morphine, the average daily dose of Brown's 172 laudanum users was 3.3 grains, and of his 120 gum opium users, 15.3 grains. This latter figure seems rather higher than one would expect, and we believe gum opium users as a rule consume less than this.

Accurate data on the quantities of opium consumed by opium smokers are available in the statistics on opium smoking in Formosa, where opium is a Government monopoly and where all smokers are required to be licensed. Published statistics (15) of this kind show that for the five-year period 1910 to 1914, inclusive, the average per capita consumption of 87,690 opium smokers was approximately 2½ pounds annually.

The various laws designed to restrict the use of narcotics by addicts have almost completely done away with opium smoking in this country and have tended to drive laudanum and gum opium users who have failed to be cured to the use of the alkaloids, because in this form the drug is much less bulky and consequently can be more easily obtained and concealed. The proportion using the bulky preparations is therefore steadily decreasing. Only 22.55 per cent of Terry's 541 opium and morphine addicts and 12.31 per cent of Brown's cases used laudanum or gum opium. In the clinics, not counting the New York City clinic, the percentage of gum opium and laudanum users was only 2 per cent. At the New York City clinic all of the addicts were given the alkaloids regardless of the opiate which they were accustomed to use. Terry's and Brown's figures, together with those of the clinics mentioned, show that there has been a gradual progression from laudanum and opium to morphine and heroin. Of 170 cases closely examined by one of us in 1923, all except 2 were addicted to the alkaloids, and both of these were over 60 years of age, but a few of the others had begun by using laudanum or opium. It is therefore safe to base the present-day dosage on morphine and heroin, and, because nearly all addicts in this country now use these alkaloids, the consumption per addict on an opium basis would be expected to be larger than it was 10 or 15 years ago; but there are other factors to be considered.

Although the unrestricted access which addicts had to narcotics before the Harrison law and the various State laws were enacted naturally tended to make the dose of morphine, the alkaloid chiefly used for addiction in those days, comparatively large, the ease with which the other opiates could be procured caused many people to become addicted to laudanum and opium, the doses of which expressed as morphine are much lower. It is probable that these two factors influencing dosage counterbalanced one another, the result being that the average daily dose on a morphine basis was about the same at that time as it is to-day.

Another factor not to be lost sight of in influencing the relative size of the average dose is the effect which recently enacted laws have had in preventing innocent, normal people from becoming addicted. Because of this factor, addiction is becoming more and more a vicious practice of unstable people, who, by their nature, have abnormal cravings which impel them to take much larger doses than those which were taken by the average normal person who so often innocently fell a victim to narcotics some years ago. Normal people now either do not become addicted or are, as a rule, quickly cured, leaving as addicts an abnormal type with large appetite and little means for satisfying it. DeQuincy (16) states that for a time he used as laudanum 320 grains of opium daily. Such an addict would now quickly discard laudanum and use the equivalent (about 40 grains) in morphine or heroin. Having in mind all the factors influencing dosage, we feel safe in

assuming that the average dose, when opium and its alkaloids were cheap and access to them was easy, was not greater than it is to-day.

From our studies, it seems probable that the average addict would consume about 15 grains of morphine or heroin daily if allowed to fully satisfy his appetite for these drugs, but the effect of the law and the high cost of peddled narcotics tends to restrict the amount in practically all cases, and no doubt in many cases holds them down to a dose which barely maintains bodily comfort. Therefore, in order not to overestimate the amount, we have, for purposes of computation, set the average daily dose at 6 grains, an amount considerably smaller than that shown by the clinics. Our observations lead to the conclusion that the average addiction dose of cocaine is about the same as that of morphine.

Quantities of narcotics available in the United States.—To supply with their daily dose the large number of addicts asserted by some to be residing in this country would require enormous quantities of narcotics—quantities far in excess of those imported at the present time or during any period in the past. This is clearly shown in Table 2.

TABLE 2.—Opium and opium alkaloids entered into United States for consumption

Decade	Population of the United States	Opium (over 9 per cent morphine) entered for consumption annually	Opium (smoking) entered for consumption annually	Opium (total) entered for consumption annually	Opium alkaloids entered for consumption annually	Number of addicts which opium (over 9 per cent morphine) and opium alkaloids would supply with 6 grains morphine sulphate daily	Number of opium smokers which could be supplied at 2½ pounds per year
		Pounds	Pounds	Pounds	Ounces		
1860-1869	34,000,000	110,305	21,176	131,481	588	44,143	8,470
1870-1879	44,000,000	192,602	48,049	241,307	2,296	77,410	19,219
1880-1889	56,000,000	328,392	85,988	414,381	20,212	135,221	34,395
1890-1899	68,000,000	518,070	92,462	605,533	20,193	200,023	36,985
1900-1909	83,000,000	480,009	148,168	628,177	17,511	195,278	59,267
1910-1919	98,000,000	366,054	None.	366,054	27,143	151,671	None.
1920-1923	106,000,000	144,805	None.	144,805	5,282	57,856	None.

The data given on imports were obtained from published reports of the Department of Commerce of the United States (17). The phrase "entered for consumption" is used in these reports to distinguish merchandise received in this country and immediately turned over to the importer, from that which is received and stored in warehouse until withdrawn by the importer. The designation "entered for consumption" therefore does not imply that the opium and opium alkaloids so labeled are completely consumed in this country. Some of the opium thus designated may be exported. That not all of the opium so designated is actually consumed in this country is shown by statistics published by the Bureau of Internal Revenue. For the past few years this bureau has compiled statistics on the amounts actually withdrawn from custody of the customs for domestic consumption. For the fiscal year 1922 this amounted to 130,599 pounds (18). The amount reported as entered for consumption by the Department of Commerce was 141,552 pounds; or, in other words, 10,953 pounds less than the amount reported as "entered for consumption" was actually consumed in this country.

In addition to the quantities of opium and opium alkaloids entered for consumption, the table shows the number of addicts that yearly importations of nonsmoking opium and opium alkaloids would supply. This has been computed on the basis that opium contains on the average 10 per cent of anhydrous morphine ($C_{17}H_{19}O_2N$) and that 1 part of the latter will make $1\frac{1}{2}$ parts of morphine sulphate [$(C_{17}H_{19}O_2N)_2 \cdot H_2SO_4 + 5H_2O$]. Data are also given showing the number of opium smokers which a year's importation of smoking opium would supply at the rate of $2\frac{1}{2}$ pounds per capita.

Making no deduction for the opium used in medical practice or for exportation, the table shows that 209,023 is the greatest number of addicts that could

have subsisted for a year during any period of 10 years on the opium imported into this country, exclusive of smoking opium. This was for the period 1890-1899. It is of course known that much of the former was used in legitimate practice and some was exported, leaving a supply insufficient for so many addicts. During this same period there were imported 92,462 pounds of smoking opium, sufficient to supply in round numbers an additional 37,000 addicts. If, however, proper deductions are made for the opium exported and for that used legitimately, this additional number would be largely if not completely wiped out. Since the Government has had a check on the opium traffic there has never been less than 100,000 pounds imported in a year, and it has already been shown that some of this is exported. Assuming that all of the opium imported was used for the satisfaction of addiction the amount would have been sufficient to supply about 246,000 addicts.

These figures are given for a period prior to the time when restrictions were placed on the traffic in opium, and there was no incentive to the smuggling trade as there is to-day. It is, therefore, believed that at no time have there been more than 246,000 opium addicts in the United States.

This statement is made with the knowledge that heroin is now being used generally by addicts in certain sections of the country, particularly along the Atlantic seaboard from Washington northward. The figures given in the table have been computed on a morphine sulphate basis. On a heroin hydrochloride basis the available supply of narcotics would have to be increased by approximately 12 per cent. As only a portion of the addicts who formerly used morphine now use heroin, the small addition which it would be necessary to make to the total number because of that change would be offset by the number who use opium or laudanum, for which the morphine sulphate equivalent has been given.

To the 246,000 opium addicts must be added 18,000 possible cocaine addicts, making a possible grand total of 264,000 addicts of all kinds for the period stated. It has, however, been shown in the discussion of the surveys that at the present time the cocaine addict is a mixed type who uses both opium and cocaine and is therefore unimportant from the standpoint of numerical estimate.

The amount of cocaine produced in the world as well as that imported into the United States has always been small in comparison with opium production and importation. An examination of Table 3 shows that the number of addicts in the United States using cocaine alone based on legitimate importation and assuming that all of the coca leaves and cocaine imported annually was used for the satisfaction of addiction, could never have been more than approximately 18,300.

TABLE 3.—Coca leaves and cocaine entered into United States for consumption

Period	Population	Coca leaves entered for consumption annually	Cocaine, ecgonine and salts, entered for consumption annually	Coca leaves and coca alkaloids in cocaine hydrochloride equivalents	Number of addicts that could be supplied on a cocaine hydrochloride dosage of 6 grains per day
		<i>Pounds.</i>	<i>Ounces</i>	<i>Grains</i>	
1908-1914	92,000,000	982,281	14,809	40,150,953	18,334
1915-1923	103,000,000	667,041	8,100	26,886,100	12,276

The cocaine equivalent of coca leaves was computed on the basis that the leaves yield an average of 0.5 per cent of cocaine hydrochloride. The materials designated "cocaine, ecgonine, and salts," have been taken as pure cocaine hydrochloride, although some of the cocaine alkaloid imported was impure. The error resulting is very likely counterbalanced by the fact that some of the material was ecgonine, which increases the quantity when converted into cocaine.

The number of addicts which the average annual amount of coca leaves and coca alkaloids entered for consumption would supply if all of it were used for the satisfaction of addiction, is computed on the basis that an addict consumes at least 6 grains of cocaine hydrochloride per day, or 2,190 grains per year.

Table 2 shows a marked decrease in importation of medicinal opium since 1899 in the face of a rapidly increasing population. The reduction since 1915 is no doubt due largely to the fact that the Harrison law became effective in March of that year, and from that time on smuggled opium must be reckoned with. Just how much is smuggled no one knows, but an examination of Table 4, together with the discussion that follows it, indicates that if all the medicinal opium now produced in the world were smuggled into this country it would not supply more than about 566,000 addicts, a number much smaller than many of the estimates which have been made of the number of addicts in this country alone.

It is impossible to secure accurate data on the opium production of the world as, with the exception of India, there are no production statistics available for the opium-producing countries. The figures given in Table 4 were taken from statistics compiled by the Opium Committee of the League of Nations (19). These statistics were compiled chiefly from information obtained in replies to questionnaires and from annual reports. The committee admits that the figures given are only estimates in the majority of cases, and states that, from the evidence obtainable, the world production of opium would appear to be between 2,500 and 3,500 tons a year.

TABLE 4.—World production of opium.

Country	1920	1921	1922
Europe:	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Bulgaria.....	13,740	22,000	22,000
Greece.....	17,216	67,500	50,000
Kingdom of the Serbs, Croats, and Slovenes.....	145,970	235,752	235,752
Near East and Egypt:			
Egypt.....	14,400	5,000	5,000
Turkey.....	610,000	650,000	650,000
Middle East:			
Persia.....	254,510	454,000	450,000
East and Far East:			
Afghanistan.....	25,900	25,900	25,900
Chinese and Russian Turkestan.....	44,000	44,000	44,000
China.....	4,400,000	4,400,000	4,400,000
India (including Burma).....	2,501,688	1,949,671	1,964,656
Indo-China.....	113,200	10,384	10,384
Japan (including Formosa and Korea).....	8,184	11,000	11,000
Siam.....	115,400	115,400	115,400
Total production:			
Pounds.....	8,034,208	7,890,607	7,877,092
Long tons.....	3,537	3,523	3,517

¹ Official figures.² Approximate only.³ Official export figures.⁴ Original figures.

The opium produced in the countries of the East and Far East is practically all low-grade opium, known as eating and smoking opium, and is consumed in its entirety in the countries of the Far East. If we subtract the quantity (6,461,340 pounds) produced in these countries from the total quantity (7,877,092 pounds) produced in the world in 1922, there remains only 1,415,752 pounds available for medicinal purposes and for the addicts who use opium in the form of its alkaloids and their derivatives, principally morphine and heroin. This quantity (1,415,752 pounds) is equivalent to 1,238,783,000 grains of morphine sulphate, computed on the basis that opium contains 10 per cent of anhydrous morphine and that 1 part of the latter will make 1.25 parts of morphine sulphate. As before stated, the average addict consumes about 6 grains of morphine sulphate per day, or 2,190 grains per year. At this rate the total annual production of opium, exclusive of that produced in the countries of the Far East, if used entirely for the satisfaction of addiction, would supply only about 566,000 addicts.

It has been shown that at no time have the annual importations of narcotic drugs into this country been greater than would be necessary to supply 264,000 addicts, assuming that they were used in their entirety for the satisfaction of addiction. No one contends that they were so used, but it has been asserted that at least 75 per cent of the quantities imported are used for this purpose. It is believed that a fairly accurate estimate of the amounts used for the satisfaction of addiction subsequent to 1909, when the entry of smoking opium was prohibited, can be obtained by using the import statistics given in Tables 2 and 3.

For the four-year period 1920-1923 the importations of opium amounted to 144,805 pounds annually. For this same period 5,282 ounces of opium alkaloids were imported annually. The narcotic division of the Bureau of Internal Revenue estimates that not over 15 per cent of these quantities gets into illegitimate channels. Making these deductions it may be assumed that 123,084 pounds of opium and 4,490 ounces of opium alkaloids are required annually to supply the legitimate medicinal needs of the country, including the needs of many old and incurable addicts now being supplied by physicians, which number is constantly decreasing. By subtracting these amounts from the amounts imported annually for the decade 1910 to 1919 we obtain 242,971 pounds of opium and 22,653 ounces of opium alkaloids.

These quantities would supply approximately 100,000 addicts for a year. Making similar computations for coca leaves and coca leaf alkaloids, it is found that approximately 9,000 addicts could be supplied with the quantities which were formerly imported in excess of what has been imported in recent years. This would make a total of 109,000 addicts who, prior to 1915, could have obtained their supplies of narcotics from the quantities imported legally. In view of the limited supplies of medicinal opium available in the world and the rigid control of narcotics exercised by this country, it is highly improbable that the combined quantities available to addicts in 1919 and 1920 from smuggled sources and from leakage through legitimate channels were more than sufficient* to supply this number (109,000). This is probably too high, in view of the reduction which has been shown, but if we add to this figure the number of aged and incurable addicts who received their supplies through legitimate channels, the total number of addicts in this country for the period stated was probably somewhere between 120,000 and 140,000, which is in keeping with the figures arrived at from the surveys and clinic reports.

That the quantities of narcotics smuggled into this country are in all likelihood not as great as is believed by some is shown by the quantities reported as falling into the possession of the Bureau of Internal Revenue in the enforcement of the narcotic laws. For the year ending June 30, 1922, the total quantity (18), including opium and coca leaves, preparations containing opium and coca leaves, the alkaloids of opium and cocaine, and preparations containing these alkaloids, was only 4,447 pounds. In 1923 it was 542 pounds.

All the evidence shows that there has been a still further reduction in the number of addicts since the surveys were made. This assertion is made with full knowledge that the number of addicts in our penal institutions has greatly increased in recent years. There is nothing in this to cause alarm. One of the recently enacted laws has made it a crime for unlicensed persons to have narcotics in their possession. This law is being rigidly enforced, and addicts, who formerly were unmolested, are now being sent to jail.

3. STATEMENTS OF PHYSICIANS INTERVIEWED

Confirmation of the estimates based on the supplies of narcotics available and on the findings of the various surveys as to the number of addicts and the trend of narcotic addiction in the United States is furnished by the experience of physicians as related to us. We have interviewed physicians from all parts of the United States, and it is unusual to find one who has an addict among his patients. Few beside those who have contact with penal institutions and certain hospitals and sanitariums meet any great number. Many physicians still occasionally see a transient addict who drops in and begs for a dose, but this, too, is growing rare. Some of the physicians who have been practicing for years in small towns and rural communities speak of addicts they have cured by the aid of the Harrison law or who have, without outside assistance, cured themselves. Some of them are taking care of one or more old or incurable cases; but from the information they give it seems that new cases of addiction are not arising to take the place of the old ones who die.

The accuracy of our observations is supported by the findings of Doctor Carleton Simon (20), special deputy police commissioner in charge of the narcotic division of the police department of New York City, who sent out a questionnaire to the physicians in New York State. Of the 7,559 physicians who replied, only 5.2 per cent reported that they were treating addicts in 1922.

TREND OF ADDICTION

It is believed that the trend of addiction in this country for the past six decades has paralleled very closely the quantities of narcotics available, as

represented by the average annual importations, in proportion to the population. This being true, it follows that the trend of addiction was upward until about the year 1900, when it took a downward course, which it has maintained up to the present time. Table 5, showing the possible number of addicts that could be supplied with the opiates imported annually for the past 63 years, if all were used for the satisfaction of addiction only, illustrates this point.

TABLE 5.—Number of addicts per million population which annual importations of opiates would supply

Decade	Population of the United States	Number of addicts which opium (over 9 per cent morphine) and opium alkaloids would supply with 6 grains morphine sulfate daily	Number of opium smokers who could be supplied at 2½ pounds per year	Total number of addicts who could be supplied	Number of total addicts per million population
1860-1869	34,000,000	44,143	8,470	54,613	1,606
1870-1879	44,000,000	77,410	19,219	96,629	2,195
1880-1889	56,000,000	135,221	34,395	169,626	3,029
1890-1899	68,000,000	209,023	36,985	246,008	3,617
1900-1909	83,000,000	195,278	59,267	254,545	3,066
1910-1919	98,000,000	151,671	None.	151,671	1,547
1920-1923	105,000,000	57,856	None.	57,856	546

It is realized that some of the addicts who were deprived of narcotics as a result of the decrease in the quantities of the drugs imported legally turned to the use of smuggled material after 1915, but in our opinion the number that obtained their supplies from this source was at no time large enough to affect the direction of the trend of addiction. That the supplies available from this source are not as great as has been stated is shown by the data which have been given for world production in Table 4.

The factors which have influenced the trend of addiction in this country, some of which are still operative, are many; but it is desired to call attention to only the more important ones in this paper.

Among the factors which have operated to increase addiction may be mentioned the advent of the hypodermic method of administration of drugs, which came into general use about the time of the Civil War, and was at first said to be a method of administering morphine without danger of causing addiction. In so far as addiction is concerned, this discovery proved to be a curse rather than a blessing. In 1884 the local anesthetic properties of cocaine were discovered, and it was not long thereafter until cocaine was widely used, especially in catarrh snuffs and nasal sprays. Many cocaine addicts were created in this way, and no doubt a large proportion of these became secondarily addicted to opium just as they do to-day. In 1898 heroin was put on the market and advertised as an opiate that would not cause addiction. It was soon discovered that this was not the case; but it was nearly 10 years before the medical profession fully appreciated the dangers of the drug. However, the increase in the number of addicts caused by this mistake was more than offset by influences tending to prevent addiction which began to operate before the end of this period.

The claim has been made that the laws which have been enacted to curb the use of narcotics have increased addiction by making illegal traffic in these drugs profitable. This factor is to be thought of, but that it is not as important as is believed by some is shown by the continuous decrease in the prevalence of addiction. In our own experience we have never met an addict who claimed that peddlers induced him to start on the drug. The drug peddler is the most hunted and despised man in the country to-day. It is therefore unlikely that he would deliberately approach a person with the idea of making a new customer. He is ready to supply persons who are already addicted, but even these sometimes come under suspicion and are refused narcotics. It is not believed, therefore, that the peddler has been an important factor in producing new addicts.

Among the influences which have tended to lessen addiction may be mentioned the enormous advances which have been made in medical science and in medical education during the last 30 years and the specific information that has been gained about narcotic addiction during that time. As a result, there has come about a better understanding of the dangers and therapeutic limitations of opium and cocaine, and these drugs are no longer used in many of the diseases for which they were at one time commonly prescribed. Another factor which has caused addiction to take a downward course is the enforcement of the restrictive laws enacted by the State and Federal Governments.

Practically all antinarcotic legislation in the United States has been enacted since 1897. By 1912 every State, except Delaware, and many large cities, including the city of Wilmington in Delaware, had laws or ordinances designed to regulate in some way the prescribing or selling of the opiates or cocaine, or both of these products (21).

The Federal pure food and drugs act, enacted in 1906, required manufacturers to state on the label the amount of opium, opium alkaloids or derivatives, and cocaine the preparation contained. In addition to other benefits, this provision did away with numerous opium cures that contained opium or opium alkaloids as the chief ingredient and were habit forming in themselves. In 1909 the importation of smoking opium was prohibited. Prior to that time, curiosity about this form of opium indulgence started many people on an addiction career. Opium smoking is rare at present in the United States, but former smokers now taking opium or heroin are occasionally met with.

The committee appointed to investigate the extent of the use of habit-forming drugs in Massachusetts (22) reported, in 1917, that 78 of 267 addicts supplied with morphine, or morphine and cocaine, by one physician, had originally been opium smokers. Simon (20) reports 876 opium smokers, mostly Chinese, among 8,174 addicts arrested in New York in three years. The Harrison Act became effective March 1, 1915. Since then other laws designed to regulate still further the traffic in narcotics have been enacted, and at the present time the Federal Government has a check on these drugs at every step in their handling from the time a permit is issued to the manufacturer to import the crude drugs until the finished product reaches the ultimate consumer.

The first result of the Harrison law was to cause large numbers of addicts throughout the country to seek treatment. Many who were relieved of their addiction then have no doubt remained cured. The rigid enforcement of the law continues to impel addicts, even those who started the habit viciously in recent years, to seek relief. It is common for this type to give as a reason for seeking a cure that they are tired of dodging the police, and occasionally an addict comes for treatment because the peddlers have grown suspicious and refuse to supply him with the drug. The superintendent of the Norfolk State Hospital (22) reported in 1917, that over 90 per cent of the addicts who applied for treatment did so because they were having difficulty in securing their supplies of narcotics. Most of such cases relapse, but in the course of time those among them who are fairly normal are permanently cured.

Efficient as these laws have proved to be from a curative standpoint, their greater value lies in their effectiveness as preventive measures. When opium and its alkaloids could be bought anywhere, either in pure form or in proprietary medicines not known by the purchaser to contain narcotics, and when prescriptions for opium could be refilled, self-medication was a very common cause of the drug habit. This, no doubt, explains in part the great prevalence of addiction formerly noted in rural communities. Addiction by self-medication is now almost impossible, as narcotics in concentrated form can be obtained only on a physician's prescription, and exempt preparations contain too small an amount of drug to create the habit unless taken in enormous quantities. For the fiscal year 1913 (18) the quantity of taxable narcotic drugs purchased by manufacturers of nontaxable preparations was equivalent to approximately 3,300 ounces of morphine sulphate, an amount too small to permit of these preparations being used for the satisfaction of addiction to any great extent.

Physicians now make very few addicts unnecessarily. The numerous reports and forms which physicians are required to make out in order to prescribe narcotics in any form tends to keep them alert to the dangers of these drugs, and mild forms of addiction now caused by a few weeks, or even months, of necessary prescribing quickly clear up after a few days of rest-

lessness on the part of the patient and he is no wiser or worse off because of it. Formerly he could experiment further with his "doctor's prescription" and become strongly addicted without realizing it until too late. To illustrate this point, attention is called to the following facts: The Tennessee survey, made before the Harrison law became effective, showed, according to Brown, that physicians were responsible for about 50 per cent of the cases of addiction. In a recent report Simon states that less than 2 per cent of approximately 10,000 addicts arrested or committed to hospitals in New York City during the past three years owed their addiction to physicians. The latter figures are supported by our own findings. Examinations made by one of us doing the past two years have shown that less than 5 per cent of the cases of recent addictions are caused by physicians. Comparison of New York City with the State of Tennessee is not altogether fair, because a certain type of addict tends to congregate in large cities and the class of persons from which the vicious type is recruited is more easily corrupted in these cities, but the percentage is so near that found by us in the examination of addicts from all parts of the country that it is thought that they may be taken as fairly representing conditions as they exist to-day.

A survey which furnishes an excellent illustration in retrospect of the effect that the Harrison law has had in reducing the extent of addiction is one made by Terry (13) in the city of Jacksonville in 1913, two years before the Harrison law became effective. At that time there was a city ordinance which prohibited the dispensing of opium except upon a physician's prescription, and which required all physicians writing prescriptions for any habit-forming narcotics to send a copy of the same together with the name and address of the individual for whom they were intended to the board of health. Indigent habitues were given prescriptions at the office of the board. Apparently no effort was made to discourage addiction or to limit the use of these drugs. The record of duplicate prescriptions and of patients applying at the health department showed 887 habitual users for the year 1913, or 1.31 per cent of the population. It is stated the figures do not represent the number of true residents, but include transients as well, and it appears that Terry personally saw and examined only 250 of the cases. Dr. William W. MacDonell (23), the city health officer at the present time, reports that in 1914 the number of addicts registered had increased to 1,073. Registration of addicts was then discontinued, but a census taken in 1919 showed 111 addicts. In 1920 there were 55 additional cases registered, but some of the 111 had moved away. Addicts are not being registered at the present time, but Doctor MacDonell reports that during the year ending in April, 1924, there were only 20 addicts under treatment in Jacksonville, with 30 additional securing their supplies from peddlers and a possible 50 more about whom there was no accurate knowledge.

As previously stated, it was unlawful to sell narcotics except on a physician's prescription, but no attempt was made to prevent the use of these drugs. How this worked out is shown by the fact that among Terry's cases there were 346 to whom cocaine alone was given, and 445 of the total number received this drug. Probably cocaine addiction is better understood now than it was in 1913, but even as late as 1919-20 some of the clinics gave cocaine along with morphine. It is now known that withdrawal of this drug causes little discomfort and no danger, but a physician who would venture to prescribe it to satisfy addiction, as well as the druggist who filled such a prescription, would be liable to prosecution under the Federal laws.

An illustration of the effect produced by the tremendous drive against narcotic addiction which has been going on in recent years is given by the answers to the questionnaire sent out by Simon in 1923 to the physicians of New York State asking how many addicts they had treated in 1922. The 51.6 per cent who replied treated only 775 cases of addiction, and from the information furnished it seems that these were mostly old people or persons suffering from incurable diseases. In the Treasury Department survey, made in 1918, 37 per cent of physicians in New York State were treating 12,365 addicts.

The increasing difficulties of an addict's career since 1913 has compelled many of them to seek cure, but the difference in the two surveys just discussed is too great to be attributed to this factor alone. Most of it is no doubt due to a change in the viewpoint and practice of physicians. Responding to the temper of court rulings, physicians no longer prescribe narcotics merely to satisfy addiction, and some of them are loath to prescribe for an addict at all even when his physical condition would seem to require a continuation of addiction, although there is nothing in the law or rulings of the Bureau of Internal Revenue which justifies this attitude. In 1918 physicians probably reported tran-

sients and other addicts not regularly treated by them. The changing attitude toward the narcotic problem was sufficient to reverse this by 1923. The total result has been that one survey counted too many addicts and the other too few.

SUMMARY AND CONCLUSIONS

The evidence seems to show that a maximum estimate for the number of addicts in the United States at the present time would be 150,000. The estimates based on actual counts and on the available supplies of narcotics, together with the conditions reported by the physicians interviewed, point to about 110,000, which number is believed to be nearly correct.

The number of addicts has decreased steadily since 1900. Before this decrease set in there may have been 264,000 addicts in this country.

The greater number of addicts in prison at present as compared with former years is due to the rigid enforcement of recently enacted laws and not to an increase in the prevalence of addiction.

The average daily addiction dose of the opiates in terms of morphine sulphate or heroin hydrochloride is not less than 6 grains. The dose of cocaine hydrochloride is practically the same.

The quantities of narcotics imported by this country at the present time are believed to be only slightly in excess of the amounts required to supply medicinal needs.

While physicians have been credited with being responsible for the creation of many addicts in the past, it is concluded as a result of our studies and observations that but few cases of recent addiction can be so attributed.

Before the enactment of restrictive laws in this country there was much opium smoking and addiction to gum opium and laudanum. To-day addicts use the alkaloids or their derivatives almost exclusively. Cocaine hydrochloride was used alone by a large number of addicts prior to 1915, but is now used only in conjunction with the opiates except in a few cases.

The proportion of the delinquent type of addict is gradually increasing. This is apparently not due to an increase in the number of this type, but to a gradual elimination of normal types.

From the trend which narcotic addiction in this country has taken in recent years as a result of the attention given the problem by the medical profession and law enforcement officers, it is believed that we may confidently look forward to the time, not many years distant, when the few remaining addicts will be persons taking opium because of an incurable disease and addicts of the psychopathic delinquent type, who spend a good part of their lives in prisons.

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[Editorial Journal American Medical Association, June 14, 1924]

While it is probably impossible to estimate accurately the number of drug addicts in the United States, the assertion of Kolb and DuMez¹ that the number is approximately 110,000 at this time, and that it has apparently been decreasing steadily since 1900, seems fairly well established. This estimate is much lower than other recent estimates, as, for example, that circulated broadcast by the International Narcotic Education Association (Inc.), of Los Angeles, which placed the number of heroin addicts alone as high as 1,000,000.

It is obviously impossible to give the exact count of persons addicted to narcotics in this country, because of the social and legal factors that tend to make addiction a secret practice. In arriving at such reassuring figures in comparison with the prevailing idea of the extent of addiction, the Public Health Service investigators have analyzed the more important recent narcotic surveys and reports of the Bureau of Internal Revenue and have made use of all other available information. Among the data that they considered may be mentioned a survey made in Tennessee in 1915 by the Pure Foods and Drugs Commission; the report of a committee appointed by the Secretary of the Treasury in 1918, which made a comprehensive investigation; data furnished by five-year records kept in Pennsylvania; Army findings; clinical reports; and, finally, estimates based on the average dosage and the maximum number of addicts that could be provided for from the available supply of narcotics.

Several factors have influenced the trend of addiction in this country since 1900, at which time the authors estimate that there may have been 264,000 addicts. The important factors are the available supply of the drug, the attention given to the problem by physicians, and restrictive laws and their enforcement. The food and drugs act of 1906, requiring manufacturers to state on the label the amount of cocaine, opium, and opium alkaloids or derivatives contained in their preparations, in addition to other benefits, did away with numerous opium cures that contained opium or some derivative as the chief ingredient. It is believed that during the last six years the decrease in addiction has closely paralleled the decrease in available narcotics.

The drug used also has changed in recent years. Before the enactment of restrictive laws in this country there was considerable opium smoking and addiction to gum opium and laudanum; but to-day those addicts have changed to more convenient and more readily available forms, and use the alkaloids or their derivatives almost exclusively. Opium smoking is now rare in the United States, but former smokers now taking opium or heroin are occasionally found.

Some other interesting facts are brought out in the report; for example, the greater number of addicts in prison at present as compared with former years is believed to be due to law enforcement and not to an increase in this class of individuals, and the proportion of the delinquent type of addict found to be increasing is believed to be due to the gradual elimination of the usual types.

If this very conservative estimate of 110,000 addicts for the entire country is true, and presumably it should be, and if the trend of addiction is as shown by these investigators, these facts constitute a cause for congratulation. The data apparently indicate that drug addiction in the United States will progres-

¹ Kolb, Lawrence, and DuMez, A. G.: The Prevalence and Trend of Drug Addiction in the United States and Factors Influencing It. Pub. Health Rep. 39: 1179 (May 23), 1924.

sively decline and, eventually, cease to be a serious problem, provided, of course, restrictive measures continue to be enforced.

In this connection attention may be called to the request of the International Narcotic Education Association (Inc.), that Congress print as a public document 50,000,000 copies of the association's leaflet, "The peril of narcotics—a warning to the people of America." The Federal Narcotic Control Board, to which the matter was referred by the Senate Committee on Printing, points out that the leaflet is based on the entirely erroneous premise that "the growth of narcotic addiction in the United States and the world over is the most alarming symptom of the new century"; that the statements made with regard to the per capita consumption of narcotics in the United States as compared with other countries are based on figures published seven years ago and do not in any way show present conditions; that the statements with regard to the prevalence of narcotic addiction among school children are untrue and are such as would tend to create popular hysteria; and that the assertions that one-fourth grain of heroin will cause addiction in a child and that 1 ounce will make 2,000 addicts are beyond comprehension. The article estimates the number of addicts in the United States at one and three-fourths millions, and the board points out that a recent survey made by the narcotic officers throughout the United States shows that the number is well within the half-million mark.

Unfortunately this is not the first instance in which the International Narcotic Education Association (Inc.) has undertaken to disseminate false and misleading statements concerning narcotic addiction. In a recent statement it alleged that a representative of the American Medical Association had testified before a congressional committee that heroin addicts in the United States numbered 1,000,000, whereas the stenographic report shows that he made no such estimate. Even earlier, figures were published to show that in 54.6 per cent of all cases the origin of the drug habit is frequent prescriptions or treatments personally administered; no reference was made to the fact that the percentage was based on interviews with a relatively small group of addicts in a southern city of approximately 58,000 inhabitants before the enactment of the Harrison narcotic law.

On the whole, the International Narcotic Education Association (Inc.) seems to be in need of information and education before it can qualify as a teacher for the world at large. The physicians whose names appear on its advisory council will do well to see that it procures such information and education before proceeding further with its self-imposed task. Unless they can do that, it seems of doubtful wisdom for them to continue to lend the influence of their names and reputations to the propaganda of the organization.

The contrast between propaganda statements of the character of the leaflet referred to and the calm, scientific report of the officials of the United States Public Health Service is a striking one. Confidence of the public in work for the public health is more likely to be sustained by the publication of accurate statements of fact than by unwarranted and exaggerated warnings concerning conditions that do not exist.

The CHAIRMAN. Mr. Neville, of the State Department, is here, and we will hear him if he wants to supplement anything that has been said.

STATEMENT OF MR. EDWIN L. NEVILLE, DEPARTMENT OF STATE

Mr. NEVILLE. Mr. Chairman, I may say at the outset that the board in writing that letter did not attempt in any way to pass upon the desirability or otherwise of the United States Government issuing a document for the education of the country if it saw fit. That was not our purpose. It was merely that the specific document, purporting to deal with the narcotic situation in the United States, was sent to us for review, and we attempted to address ourselves purely to the document itself.

With your permission, I will just run through certain statements of fact in that document with which I am inclined to take issue and in which I think the board was right.

The statement is made in the opening paragraph that America leads the world in the consumption of opium, etc. It does not. The admitted consumption of opium in India is over five times the consumption of the United States, and in the Federated Malay States it is over three times as much. In the Dutch Indies it is also about three times as much, in Siam it is about twice as much, and so on down the line.

We use more opium than any European country, but that is only because we have a larger population. The per capita consumption of opium for the United States, Great Britain, and the northern European countries is about the same.

Senator FLETCHER. How about Russia?

Mr. NEVILLE. We have no accurate data in regard to Russia. The stated consumption per capita of opium in Germany is less than that in the United States, but they say frankly that their statistics are not complete, that they will submit later estimates which they think will materially increase the amounts of opium which their medical men will require for medicinal purposes.

Senator PEPPER. I suppose your statistics are necessarily based on opium legitimately produced and brought in? I mean, you can not take into account the opium that is smuggled?

Mr. NEVILLE. No, sir; we do not.

Senator PEPPER. And I suppose the same thing is true of Great Britain and other places, that the comparative statistics are the statistics of legitimate importation or production?

Mr. NEVILLE. That is true. The large consumption in the United States prior to the passage of the Harrison Act and the tightening up of that measure in 1918 and 1922 was due to the fact that the United States was probably the largest manufacturer of narcotic drugs in the world. We sent morphine and various other addiction products, for addiction purposes, all over the world in larger quantities perhaps than any other country except Great Britain.

It is true that there is a narcotic menace. The world realizes that, and for that reason some 12 years ago the nations of the world that were interested, recognizing that fact, got together and made an international treaty with a view to curbing the international traffic in these habit-forming drugs and recommending certain types of legislation to be adopted. The war prevented further action, and it is only within the last three or four years that we have caught up with the intent of the treaty.

The appearance of addiction is due, we all feel—when I say “we” I mean both the men in the United States and those from foreign countries who are engaged in this line of activity—that it is purely because we have little by little adopted repressive measures controlling the manufacture that we now see that the addiction problem was really a bigger thing than people at first thought. Those conditions are coming to light.

Senator RANDELL. Did your investigations lead you to believe that a very material quantity of opium and its products have been smuggled into this country in the last few years?

Mr. NEVILLE. Yes, sir; I think there has been quite a good deal of smuggling. Just how much there has been, of course, we do not know, because if we did know there would not be any more smuggling. We do now attempt, of course, under the practical operation

of The Hague conference, to furnish each other—each Government interested furnishes a complete statement of its imports, exports, production, manufacture, etc., with such other information as is called for; and we report back and forth seizures and similar developments in the operation of the laws.

Senator RANSDELL. Do you agree with the figures on world production stated by Doctor Kolb?

Mr. NEVILLE. I think that is approximately correct. As a matter of fact, they are the only figures we have. The total estimated requirements for medicinal purposes throughout the world, based upon such statistics as we have—and I want to say that they only cover a very small portion—show that probably about three-quarters of the civilized world calls for about 215 tons of opium to take care of the medicinal requirements of those particular countries. Those countries including the United States, practically all of western Europe, including Great Britain, the British colonies—that is, the British self-governing dominions—the French colonial possessions, and the people who are really under western medical methods. But there is a large portion of the earth whose exact requirements we do not know.

Senator FLETCHER. What efforts are being made to keep up with the smuggling, to prevent it, and find out how much is being handled in that manner?

Mr. NEVILLE. Senator, we have, as a matter of fact, a very good working agreement with the British, the Germans, and the French, sending information back and forth. Immediately a shipment is made or a large quantity of narcotic drugs is sold our consuls are notified, and we attempt to check the stuff when it gets into the country. The British have a similar system, and so to a certain extent have the French and Germans, and we try to cooperate the best way we can. That is really one of the things that we need, an effective control throughout the world wherever these drugs are manufactured, so that when the drugs are manufactured they can be traced. We are little by little approaching that condition.

Now, there is a statement here that the European chemists are discovering methods of manufacturing narcotics from coal tar. Doctor Kolb dealt with that. I may say that at an international narcotics meeting we discussed that quite thoroughly and made a report on it. A thing known as synthetic L cocaine is manufactured, but it is not manufactured commercially.

Unless there are specific questions the committee would like to ask me, I do not think it is fair to you to keep you here any longer.

Senator MOSES. Two members of the committee have suggested that we bring the hearing to a close, because they want to do some office work. We are very much obliged to you, Mr. Neville.

Senator RANSDELL. I suggest that if the witness wants to add anything to his testimony he be permitted to do so.

(Additional data subsequently submitted by witnesses is here printed in full, as follows:)

STATEMENT BY CAPT. RICHMOND P. HOBSON, PRESIDENT INTERNATIONAL NARCOTIC EDUCATION ASSOCIATION, LOS ANGELES, CALIF.

THE DOCUMENT

The document contains about 6,000 words suitable for an eight-page pamphlet, costing in large quantities about one-third of a cent per copy.

It has been prepared by the president of the association from material supplied by the association's department of research and education. It has been the subject of conference with Senator Copeland, Congressman Porter, Congressman Kindred, all authorities on matters of narcotics, and has been examined paragraph by paragraph by Congressman Kindred.

The treatment brings forward the knowledge in the natural order, chemistry, toxicology, biology, physiology, psychology, sociology, to be suitable for teaching purposes and endeavors to follow the psychological method to be effective with the general reader.

It is an honest little document and we hope it may be found suitable and effective to carry a message of vital truth from Congress to the American people.

The purpose of the document is to reach quickly in the reader, in the teacher and in the pupil, and to awaken the motive of self preservation. In the young this motive is the best mantle of protection in the midst of the narcotic peril. In the families and in the nation this motive is the best foundation for wise public policies for meeting the menace of narcotic addiction.

THE INTERNATIONAL NARCOTIC EDUCATION ASSOCIATION

The International Narcotic Education Association is incorporated under the laws of the State of California for organizations "Not for profit," and is considered by the commissioner of corporations of that State to be on a par with churches and benevolent institutions.

The United States Treasury Department, after reference to the Attorney General's office, has classified the association as an educational and scientific organization, exempt from Federal taxation.

OFFICERS OF THE ASSOCIATION

The board of trustees are the following: Five members from California (required to be a majority); Charles C. Chapman, chairman; Harry Chandler, George L. Cochran, A. B. C. Dohrmann, William G. McAdoo; four members outside of California, elected but not yet notified; two from the region of the Atlantic seaboard, viz, Haley Fiske, John D. Rockefeller, jr.; one from the region of the Great Lakes, viz, Charles Dawes; alternate, Cyrus McCormick; one from the region of the Mississippi Basin, viz, Robert Brookings.

The board of directors are the following: Richmond P. Hobson, chairman; Mrs. Hancock Hanning, Benjamin F. Bledsoe, Arthur H. Fleming, William D. Gould, Benjamin Meyer, John G. Mott, J. W. Jameson, Frank F. Peard.

The executive officers are the following: Richmond P. Hobson, president; William D. Gould, vice president; John G. Mott, secretary; Frank F. Peard, treasurer; Rex Lampman, director of education and research; W. A. Edwards, director of extension and finance; Charles Prowd, director for colored people.

The executive officers are serving at a financial sacrifice reaching as low as 30 per cent of the market value of their services. The overhead at the last calculation was below 14 per cent.

David Starr Jordan is chairman of the American committee on research; Robert Herod (Lausanne, Switzerland) is chairman of the European committee on research.

The advisory council are the following: Curtis Dwight Wilbur, Harry New, James J. Davis, Arthur Capper, Royal S. Copeland, Friend W. Richardson, Henry J. Allen, Lee M. Russell, Charles C. Moore, James G. Scrugham, W. B. Ross, Walter M. Pierce, W. W. Brandon, R. A. Nestos, Thomas G. McLeod, E. Lee Trinkle, Edward J. Hanna, L. C. Stanford, Charles H. Pollock, J. W. Crabtree, P. P. Claxton, Harvey W. Wiley, Cuno H. Rudolph, Susan M. Dorsey, Luther Burbank, Howard A. Kelly, Robert E. Swain, William Palmer Lucas, George E. Leach, Walter A. Sims, Frank X. Schwab, George L. Baker, John Willis Baer, Delphin M. Delmas, E. G. Lewis, I. S. Mathieu, S. Panarstoff, Emi Navarasth, R. J. Alford, Edgar Trochmit.

The governors of 48 States, the State boards of education in 48 States, nearly all superintendents of education, and all teachers contacted are cooperating.

Indorsement and cooperation of the following: Beginning in Los Angeles city and county and the State of California, and extending outward to other States and in some cases already to the national organizations; Los Angeles County Medical Association, Parent-Teachers' Association, American Legion, Boy Scouts, Elks, Rotary, Kiwanis, Lions, and other luncheon clubs; Knights

of Pythias, Masonic clubs, Knights of Columbus, Ku-Klux Klan, and women's clubs.

The cooperation includes Jews, Gentiles, Protestants, Catholics, Shintoists, Buddhists, Theosophists, etc.; Democrats, Republicans, prohibitionists, anti-prohibitionists; white people, black people, yellow people, Indians.

A UNIVERSAL PROBLEM

It is estimated that there are 75,000,000 in the world, and that the problem of addiction challenges all nations and the human race itself. America is taking the leadership in seeking the control of the international opium traffic. Peculiar difficulties lie in the path of international treaties on account of the opposition of the countries deriving revenue from the drugs. Peculiar difficulties lie in the path of legislation, both in enactment and enforcement. The motive of self-preservation must be aroused not only in individuals but in nations and in humanity. Chemical science is finding out new methods of producing narcotic drugs now known and is discovering new drugs to menace society in the future.

Narcotic education has now become and will remain a sociological necessity for nations and for the human race. The International Narcotic Education Association is founded to bring about this education service, and this alone, and to be a regulatory center to insure effective functioning of all agencies adapted for this service.

FINANCING

The International Narcotic Education Association is providing for a permanent narcotic education foundation, to be administered by its board of trustees, the proceeds from which is to be used for the continuing support of the central organization.

Direct narcotic service is carried on in the usual way, using the written word, the spoken word, visual, and other aids, and this regular service and the service to families through the Quarterly Journal is planned to be self-sustaining, but the main function of the central organization is to be analogous to a nerve-center stimulating and directing the functioning of existing machinery for research and education.

The membership fees range from \$1 a year, nominal membership, to \$1,000 a year and over—a foundership. Thus far the bulk of the support has come from founderships, which are being renewed in most cases.

CONSTRUCTIVE PLANS

The objectives aimed at to quickly stem the narcotic peril are; first, to reach the youth and the homes as soon as possible with a warning about the peril of narcotics; secondly, to establish standard education instruction for the young and regular narcotic education service for the families of America and ultimately for those of other lands.

The program to attain these objectives as authorized by the board of directors consists of the following:

1. Immediate action by Congress to distribute a public document on the peril of narcotics to the families of America, as soon as possible, and by the opening of the school year to the professors, teachers, students, and pupils.
2. An identical plank on narcotics in the platform of both major parties with an educational preamble of warning (copy of plank suggested attached hereto).
3. The development as soon as practicable of a permanent narcotic survey under the Treasury Department, utilizing the agencies of its narcotic division and its Public Health Service, and engaging similar agencies of the States, counties, and cities, together with the cooperation of the American Medical Association and other organizations.
4. The development of a permanent narcotic education service under the Department of Interior, Commissioner of Education, to cooperate with the boards of education and education agencies, and officials of States, counties, cities, colleges, and universities—also with the National Education Association and its branch associations, the Parent-Teachers' Association, and similar organizations, all cooperating to solve the pedagogical problems for introducing and conducting narcotic education instruction in our education systems.
5. The cooperation of the American Medical Association, the National Education Association, and other national organizations in the execution of the program.

6. The cooperation of churches, clubs, associations, fraternal orders and other organizations, and of business and industry for taking narcotic education service to their members and employees, and the cooperation of educational and scientific activities, statistical and experimental, for research work on narcotics and narcotic education, public and private in America and in other lands.

President Coolidge approves this program. The Secretary of the Treasury approves it and has directed the bureaus of his department concerned to take up the preliminaries for organization of a narcotic survey. The Secretary of the Interior approves the program and has authorized the Bureau of Education to take up the beginnings of a narcotic education service.

The executive program is thus assured, and in due course Congress will be advised when the functions of the executive departments are ready for organic legislation and budget provision. We are now confidently awaiting the action of Congress in the carrying out of the legislative program.

SUMMARY

First. Narcotic addiction in America has reached the proportions of a challenging serious national problem.

Second. The spread of heroin addiction among the young tending to increase by multiplication is causing a rising tide of crime and is threatening to become a galloping social disease. Delay in checking it will be costly to the Nation in life and in character and the stability of our institutions.

Third. The question involves the public health, the public morals, the public safety, the very foundations of the social order and the future of the race.

Fourth. America is assailed by opium with Asia as a base, by cocaine with South America as a base, by heroin and synthetic drugs with Europe as a base. This deadly drug warfare, that from three sides is striking at our citizens, our homes, our institutions, the very germ plasm of our people is more destructive and biologically more dangerous to our future than would be united warfare against us from those three continents. Our American Union was formed and the Constitution ordained for the primary purpose of meeting just such crises, and Congress has organic duties in the premises, where the common good and the common defense are so intimately involved. The only question to be considered is the best means of repelling this deadly assault.

Fifth. "For want of knowledge my people perish." "Ye shall know the truth, and the truth shall make you free." "The cause of addiction is ignorance; the result, misery; the remedy, education."

Education is basic for the permanent treatment of all deep-seated social ills that are organic. An educational document on narcotics from Congress direct to the homes from time to time is a logical part of any practical education plan for the American Nation. For the first swift inoculation with the antidote of truth to neutralize the social poison of narcotic drugs, there is no other agency available but Congress.

This action by Congress is to be supplemented by efforts to secure the use of the document for narcotic enlightenment by the speakers and writers of both parties in the approaching campaign, supplemented by the hoped-for plank in the platforms of the parties and the expected cooperation of the pulpit and the press. The document sent by Congress would be especially effective at this time.

Sixth. What objection can possibly be found?

The proposition may seem sudden. That is because narcotic activities are so secretive and our people—even the best informed—are in the dark. The tragedy is that action is already so late. It might be said that the committee has held no hearings. The hearings on the Porter antiheroin bill are like a solid document of testimony, and may be considered appropriate from beginning to end. Likewise, the hearings on the Porter resolution and of the special narcotic committee that reported in 1919, concluding with the declaration that there were even then before the greatest expansion of heroin, more than a million addicts in the country. But why hearings when there is no minority side?

On the main proposition all are agreed that we have a serious problem, vital and urgent and that education is the basic treatment. It is not debatable that our people and particularly the young people, ought to be put on their guard and are entitled to receive the warning which Congress alone can now insure. The unanimity of accord in our contacting over 800,000 during the last 12 months reveals that we can proceed by the swift process of unanimous consent.

It might appear that 50,000,000 copies is a large order. That is because we have a large country. There are 25,000,000 families to be reached, and 25,000,000 young people and teachers and none should be omitted. It is true that Congress has never ordered so many copies of any document. That is because Congress has never been called on to act in such capacity except for part of the people. This precedent is simply due to the fact that the problem confronts all the people everywhere.

It might appear to some at first sight that \$167,000 is a large sum to pay for printing. It should be borne in mind that the cost for serving a family or a child is only one-third of a cent. An impartial examination of the little document will convince anyone that it must have a serious deterrent protective effect upon its readers, particularly the young, and that such a protective effect of necessity will remain permanent, and that those to whom this new light is conveyed will convey it to others, causing the antidote to outrun the poison itself.

Who can estimate the value to the Nation that must come from the expenditure of this \$167,000? Tens of thousands of young girls disappear every year. Practically all prostitutes are addicts. Tens of thousands of youth take the criminal path every year, largely because of narcotics, and hundreds of thousands are now in our penal institutions and add the burden of upkeep to the cost of apprehension and conviction.

A police official of a large city recently told us that with one exception every murder committed in the city in the last five years had been connected directly or indirectly with addiction.

The usual value of a life is estimated at \$10,000, economically. Suppose in addition to the economic value of the physical life the girl is saved from prostitution and the youth from crime, what is the total salvage value? I would suggest that you ask the broken-hearted parents who are now mourning. No one can put a money estimate upon soul life. I state the case conservatively in saying that thousands upon thousands of our youth will be saved from a fate worse than death by the expenditure of this \$167,000 "ounce of prevention."

One who wishes to deal in economics alone may take account that Dr. Carlton Simon, an authority, estimates that the economic burden laid upon the American people, not including that of disease, crime, pauperism, and insanity, exceeds \$1,825,000,000 yearly, or \$90 for each family to whom we propose to send the document, costing one-third of a cent, with a view to removing the primary cause.

At first blush, from force of habit a Senator or Member might fear an appropriation of \$167,000 would bring criticism. Criticism will be hurled at the appropriations and authorizations of millions and billions about which there is wide difference of opinion. This education item is one item that will be approved by all. It would be particularly timely while so much is being said against the Government and its agents to have every family in the Nation receive a reminder from their Government, from their Congressman and their two Senators that the Government and its agents are really thinking of them and studying the problems of their welfare.

It is thus found upon examination that considerations of the greatest moment call for the adoption of this resolution, considerations of urgency affecting all our people, involving the fate of thousands of our youth, affecting profoundly the welfare and safety of our country, the stability of our institutions and civilization, perhaps the destiny of the race.

On the other hand, no reasonable tenable objections can be found. We await with confidence the important action of this committee, upon which the outcome hangs.

IDENTICAL PLANK SUGGESTED FOR CONSIDERATION OF RESOLUTIONS COMMITTEES OF BOTH NATIONAL CONVENTIONS

We call especial attention of the people to the serious menace of narcotic addiction and its secret and alarming growth amongst our young people of both sexes largely through the active illicit exploitation of the powerful drug-poison, heroin. This drug, three times as powerful as morphine, approaches a youth under the name of "snow," "headache powder," or other harmless designation, and in a few days seizes its unsuspecting victim and drags him into a bondage worse than death, from which no escape has yet been found, transforming the promising youth into a potential murderer, daring, cruel criminal, and turning him into an active recruiting agent and drug peddler, to seize in turn his companions and prey upon society.

*either he was a fool or
heroin is a bear*

We are proud of the eminent leadership America holds and has held continually among the nations of the earth for more than 80 years, regardless of party control, in the struggle against the infamous, international opium traffic.

Recognizing in narcotic addiction a grave peril to America and to the human race, we pledge ourselves, regardless of politics, vigorously to take against it all legitimate and honorable measures for education for control and for suppression at home and abroad.

RÉSUMÉ OF EDUCATIONAL FACTS ABOUT NARCOTICS

Poisons and poisoning.—The narcotics morphine, cocaine, and heroin are deadly poisons, more deadly than the venom of reptiles. Narcotics are especially poisonous to the upper brain and to the organs of reproduction. A person taking narcotics regularly impedes evolutionary progress and tends to degenerate backward toward the brute. Persons taking narcotics regularly impair their sexual and reproductive powers, injuring their off-spring unborn. Finally they become impotent and sterile.

Bondage and torture.—Persons taking opiates are swiftly caught into bondage in which they must have ever increasing doses and in which if they go without their drugs even for a short time they suffer untold torture—tortures that often result in death. The supply of drugs for addicts is illicit and uncertain. The addict is living in constant fear of not being able to get his drug and is at the mercy of the pitiless dope ring—his masters—from whom alone he must get his supply. Addicts are unable to earn money and yet the average addict must pay at least \$10 a day for his drug.

The living death.—Most cases of addiction are regarded as permanently incurable by the best authorities. "Cures in most cases, especially of heroin addiction, are only temporary. Addicts live in a "life-in-death" bondage and are called in scientific circles "the living dead."

Heroin is menacing the youth.—Heroin is now the principal and most dangerous drug of addiction and the heroin peddler is active among our youth in school and out of school, and usually "hooks" his victims before they are 20 years old.

Recruiting.—Cocaine and heroin addicts develop an insane desire to convert others into addiction. Boys and girls, themselves addicts, and sometimes even when not addicts but employed by peddlers, work amongst their companions, inviting them to "snow parties," telling them to "try anything once," suggesting that they "take a shot."

The crime wave.—The heroin addicts are potential murderers. Wardens of five State penitentiaries say that 90 per cent of the inmates of their prisons have been narcotic users. An ounce of heroin is enough to produce 2,000 addicts. Carrier pigeons are sufficient for transportation. The law can neither fully control transportation nor the source of supply.

Opium production and consumption.—The United States, even excluding the vast amount of drugs of addiction smuggled into the country, is by a great lead the largest user among the nations. The world's annual production of opium is over 3,000 tons. Two hundred and fifty tons is considered more than ample for legitimate purposes. Authorities say 5 tons would be sufficient for all medical uses. The vast bulk of the opium supply of the world is used for the exploitation of the slaves of addiction.

Suppressing the traffic.—America since 1842 has taken the leadership internationally in seeking to break the yoke of the opium traffic.

Present education woefully inadequate.—Of the 18 text books on physiology and hygiene widely used in the schools of the United States, 5 contain nothing whatever about narcotics and the other 13 devote an average of less than two pages to the subject. Only one of these books mentions heroin, and that only casually. School children must be supplied with the facts concerning this new powerful drug, their deadliest enemy, by special provisions in their homes and in the schools until standardized instruction shall be incorporated in the educational system. The Whitney commission appointed by the New York State Legislature, in summing up its findings on the social disease of narcotic addiction, said: "The cause is ignorance, the consequence is misery, and the remedy is education."

(Whereupon, at 5.50 o'clock p. m., the committee proceeded to the consideration of executive business, and thereafter adjourned to meet at the call of the chairman.)

more narcotic