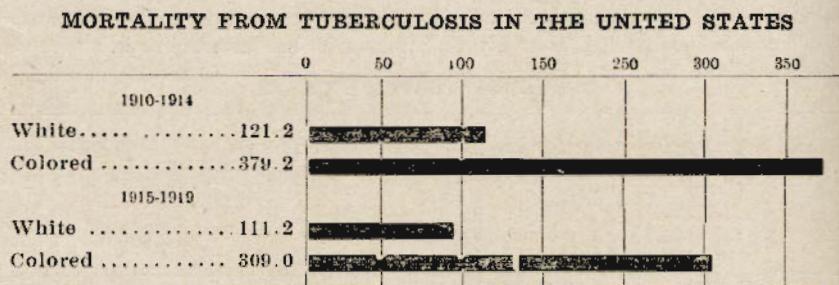


TUBERCULOSIS IN THE COLORED RACE IN PORTO RICO

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The first negroes imported to the United States were brought over from Africa by the English in the year 1619; but not until the end of the seventeenth century did the number of slaves imported reach large proportions. Among those slaves imported to the United States, tuberculosis worked ravages from the beginning, and although the incidence of the disease, according to some statistics, is now decreasing among them at a faster rate than among white Americans,* tuberculosis among negroes is still one of the great health problems confronting many of the southern states of the Union.

Fischberg gives an idea of the relative mortality from tuberculosis among white and colored Americans, from 1910 to 1919 in the following chart:



Colored people were imported as slaves to Porto Rico for the first time in the year 1513, by the Spaniards. The Porto Rican negro, therefore, has been at least one century longer in contact with white civilization than the American negro. He has also been allowed more intimate contact with the white race, and has lived in a milder climate and under natural conditions more favorable to his subsistence than those negroes that were imported to the United States. All of those factors would naturally tend, it seems,

* Dublin and Van Buren, however (*Tubercle*, October 1927), state that "such data as are available show clearly that the reduction in the tuberculosis death rate among the colored people (in the United States) has been general throughout the country, but that it has not been so pronounced as for the whites."

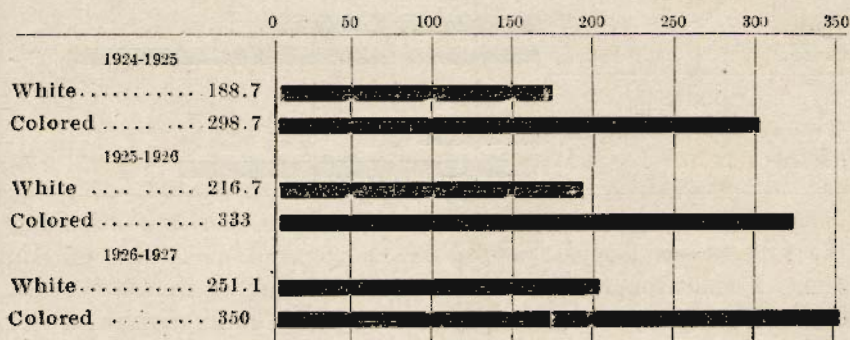
to make the Porto Rican negro more immune to the ravages of tuberculosis than the colored American. Longer contact with white civilization and the freer mixing of his blood with that of a white race; a considerable natural immunity to tuberculosis, plus a tropical environment favorable to his organism, would apparently tend to make him more resistant to the white plague than the American negro, who has lived less time among the whites, has been kept in relative isolation, and was transplanted to a semi-tropical environment which is quite dissimilar to that of Africa.

After a number of centuries in intimate contact with the white race, the Porto Rican negro might possibly have developed just as much immunity to tuberculosis as those Porto Ricans who are of Spanish descent, or possibly even more immunity, since the white race always lives at a disadvantage in the tropics, when compared to the black race.

With the aim of determining if possible, the relative immunity to tuberculosis of the negro race in Porto Rico, as compared with the white race, I have made a series of statistical and clinical studies which I am here presenting.

I have endeavored to express in the chart below the relative tuberculosis mortality of the white and colored races in Porto Rico from the year 1924, when statistics were for the first time duly classified in Porto Rico, up to the year 1927.

**TUBERCULOSIS MORTALITY RATE PER 100,000 POPULATION IN
PORTO RICO, ACCORDING TO RACE**



Under "colored", are included mulattoes and negroes.

Three things are at once apparent from this chart; first, that tuberculosis mortality is much higher among the colored people of Porto Rico than among the whites; second, that the tuberculosis

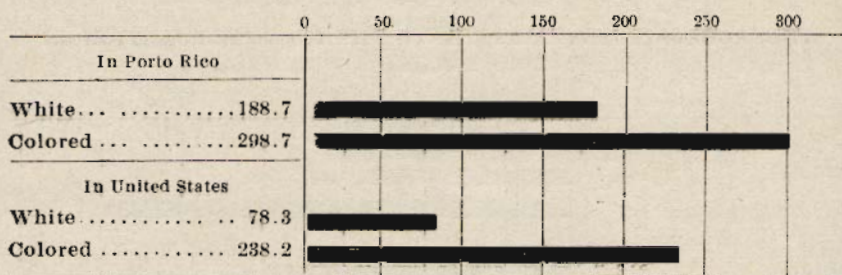
mortality rate is increasing rapidly in Porto Rico, having made an increase of thirty per cent since 1924, and third, that the death rate from tuberculosis is increasing more rapidly among the white population than among the colored.

While the colored race shows an increase of mortality rate of seventeen per cent from 1924 to 1927, the mortality rate among the whites during that period of time has increased thirty-three per cent.

Comparing this chart with the former one, which expresses the tuberculosis mortality rate in the United States from 1910 to 1919, we see that in that country the death rate from tuberculosis decreased during the period from 1910 to 1919 at a faster rate among the colored part of the population than among the whites. While the white race experienced a decrease of nine per cent in its death rate during that ten-year period, the tuberculosis mortality rate among the colored people during that same period came down 22.6 per cent.

In the year 1924, the tuberculosis mortality rate among white people in Porto Rico was 188.7, and 298.7 among the colored. The corresponding rates in that year for the United States were 78.3 for the whites and 238.2 for the colored.

TUBERCULOSIS MORTALITY IN THE COLORED RACE IN THE UNITED STATES AND IN PORTO RICO FOR 1924



Among two hundred advanced tuberculosis patients attending the tuberculosis dispensaries of the Department of Health of San Juan, I endeavored to determine the duration of illness in each case, with the hope of getting some idea as to the relative resistance of white and colored patients to the ravages of the disease. One hundred and thirty of the two hundred patients were white, forty-four were mulattoes and twenty-six were negroes. The disease had advanced rapidly (in less than six months) in 47.7 per cent of the white patients in 59.1 per cent of the mulattoes, and in 61.5 per

cent of the negroes. It had progressed slowly to the advanced stage (in over two years) in 23.1 per cent of the white patients, in 18.2 per cent of the mulattoes, and in 15.4 per cent of the negroes.

RESISTANCE TO TUBERCULOSIS

Study of Two Hundred Advanced Patients

Duration of illness before coming to the dispensary	White	Mulattoes	Negroes
Less than six months	62 47.7%	26 59%	16 61.5%
From six months to two years.....	38 29.2%	10 22.7%	6 23.4%
Over two years.....	30 23.1%	8 18.2%	4 15.4%

These data seem to suggest that the colored patients in this series had less resistance to the inroads of the tubercle bacillus than the white patients; and, although the number of patients included in this study was too small to allow any conclusions therefrom, the evidence thus gained might be useful when used in conjunction with other data.

I also made a careful study of the histories of two hundred dispensary patients, to determine what percentage of these had positive histories of tuberculosis in the family, with the aim of gaining some ideas as to the relative susceptibility to infection among the families of the white and colored patients attending the dispensaries. The percentage of positive family histories among the white patients was thirty-three per cent, and among the colored patients forty per cent. This again seems to suggest greater susceptibility among the colored patients.

FAMILY HISTORY OF TUBERCULOSIS

Study of Two Hundred Advanced Patients

	White	Colored
Number of patients who have a former tuberculosis history	43	28
Number of patients having a negative history of tuberculosis in family.....	87	42
Percentage of positive family histories	33 per cent	40 per cent

I also made a study of five hundred and seventy-two dispensary patients with pulmonary tuberculosis in different stages of the

disease, endeavoring to determine what per cent of these were incipient, and how many were advanced cases, among those belonging to the white and colored races. I hoped by this means to get a further idea as to the relative immunity of the two races to tuberculosis.

Of these five hundred and seventy-two patients, three hundred and seventy-nine were white, one hundred and two were mulattoes and ninety-one were black. Of one hundred and twenty-four incipient cases in this group, 29.8 per cent were colored, and of four hundred and forty-eight advanced cases, 34.9 per cent were colored. Of the total number of colored patients, 19.2 per cent were incipient and 80.8 per cent were advanced. Of the total whites, 29.8 per cent were incipient and 70.02 per cent were advanced.

CLASSIFICATION OF FIVE HUNDRED AND SEVENTY-TWO PATIENTS

	White	Mulattoes	Negroes
Incipient	87	18	19
Moderately advanced	130	38	35
Far advanced	162	46	37
Percentage of incipient patients in relation to each racial group	22.9%	Colored 19.2 per cent	
Percentage of Colored Incipient			
Patients in relation to the total number of incipient patients			29.8 per cent
Percentage of Advanced Colored			
Patients in relation to the total number of advanced patients			34.9 per cent

CONCLUSIONS

Although the number of cases studied was not large enough to guarantee any very definite conclusions, it seems probable, from the study of mortality rates as well as from the suggestions gained from the charts here presented, that the colored race in Porto Rico, as in other parts of the world, has less immunity to tuberculosis than the white race.

An analysis of morbidity statistics for the Island as a whole would be a great help in a study of this sort. Such analysis was not made because of the lack of any usable classifications in existent tuberculosis morbidity statistics in Porto Rico prior to the present year. With the institution of a new method of reporting diseases, and of classifying such reports, the morbidity statistics that are being gathered this year will be available for studies of this sort.

Tuberculin reactions in large numbers of white and colored

children would be another useful means of determining racial immunity to tuberculosis in Porto Rico. Such data are now being gathered.

The significance of the more rapid increase in the tuberculosis mortality rate among the white population during recent years, merits careful study.

REFERENCE

Reports of the Commissioner of Health of Porto Rico from 1923 to 1927.

Reports on Mortality Statistics in the Registration Area of the United States, published by the Bureau of the Census, Department of Commerce of the United States.

Fischberg's "Pulmonary Tuberculosis"

"Special Aspects of the Declining Tuberculosis Death Rate in the United States", by Louis I. Dublin and George H. Van Buren, "Tubercle", October, 1927.

CORRECTION

In the literature cited on page 316 of Vol. III of the REVIEW (Feb., 1928) the first reference should read "Ashford, B. K., and Gutiérrez Igaravidez, P., Uncinariasis in Porto Rico, etc." and on page 315 the name of Dr. Gutiérrez Igaravidez should appear in the parenthesis, line 37, with that of Dr. Ashford.

O. COSTA MANDRY and R. A. MARÍN.
