

**The prevalence of pellagra in the United States : a statistical and geographical note with American bibliography / by C.H. Lavinder, C.F. Williams and J.W. Babcock.**

**Contributors**

Lavinder, C. H. 1872-1950.  
Williams, C.F.  
Babcock, James Woods, 1856-1922.  
Royal College of Surgeons of England

**Publication/Creation**

[Atlantic City, N.J.] : [American Medico-Psychological Association], 1909.

**Persistent URL**

<https://wellcomecollection.org/works/uggrmqk4>

**Provider**

Royal College of Surgeons

**License and attribution**

This material has been provided by The Royal College of Surgeons of England. The original may be consulted at The Royal College of Surgeons of England. where the originals may be consulted. Conditions of use: it is possible this item is protected by copyright and/or related rights. You are free to use this item in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s).

Royal College of Surgeons,  
London, 21

THE PREVALENCE OF PELLAGRA IN THE UNITED STATES.

A STATISTICAL AND GEOGRAPHICAL NOTE WITH AMERICAN BIBLIOGRAPHY.

By C. H. LAVINDER, M. D.,

*Past Assistant Surgeon, U. S. Public Health and Marine-Hospital Service;*

C. F. WILLIAMS, M. D.,

*Secretary South Carolina State Board of Health, and State Health Officer;*

AND

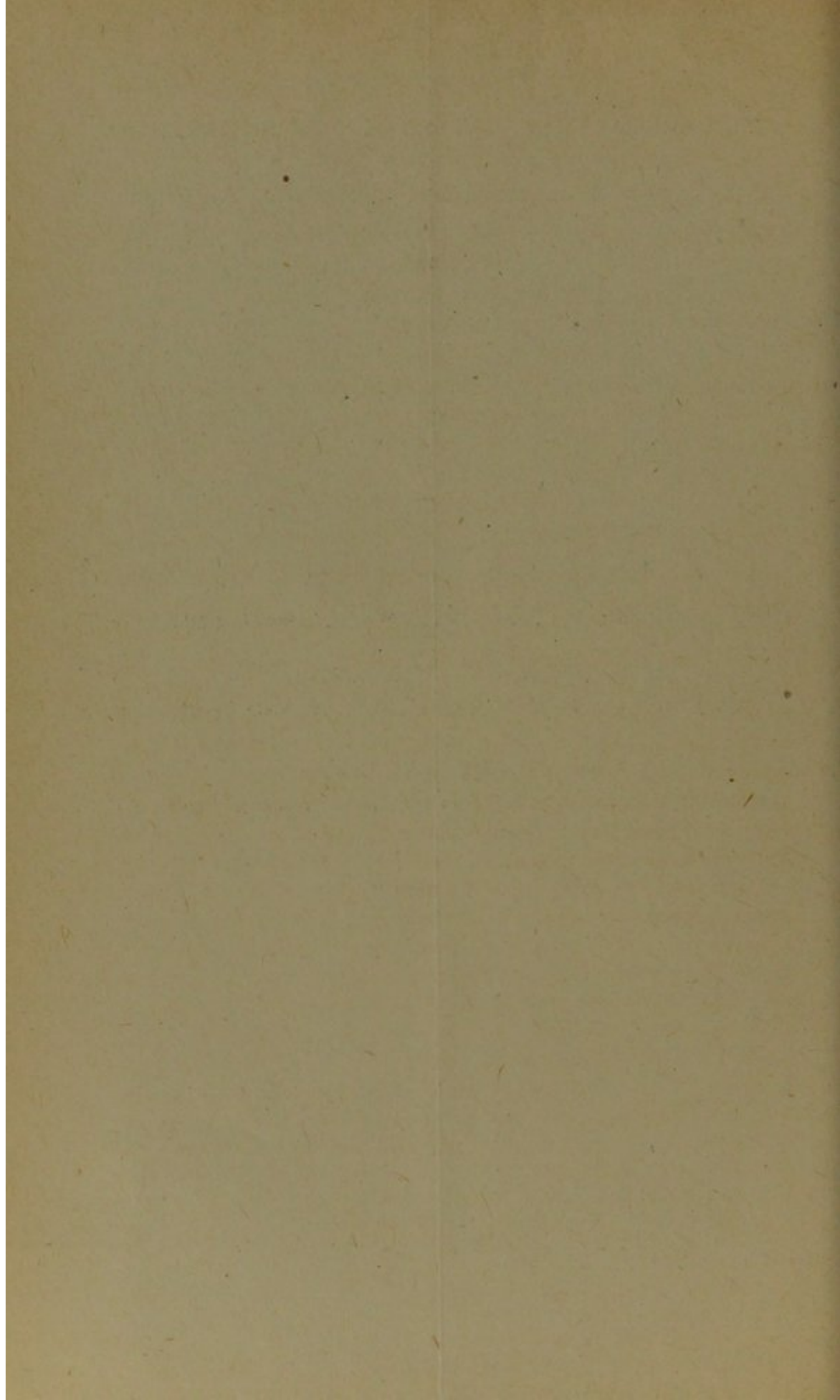
J. W. BABCOCK, M. D.,

*Physician and Superintendent State Hospital for the Insane, Columbia, S. C.*



Reprinted from PROCEEDINGS OF THE AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION, Sixty-Fifth Annual Meeting, Atlantic City, N. J., June, 1909.

From  
W. Babcock





THE PREVALENCE OF PELLAGRA IN THE UNITED STATES.

A STATISTICAL AND GEOGRAPHICAL NOTE WITH AMERICAN BIBLIOGRAPHY.

By C. H. LAVINDER, M. D.,

*Past Assistant Surgeon, U. S. Public Health and Marine-Hospital Service;*

C. F. WILLIAMS, M. D.,

*Secretary South Carolina State Board of Health, and State Health Officer;*

AND

J. W. BABCOCK, M. D.,

*Physician and Superintendent State Hospital for the Insane, Columbia, S. C.*

Forty-five years ago two cases of probable pellagra with mental symptoms were reported by Dr. Gray, of Utica, N. Y., and Dr. Tyler, of Somerville, Mass., at the annual meeting of the Association of Medical Superintendents of American Institutions for the Insane, held in Washington, D. C. Exclusive of one case reported by Dr. S. Sherwell, of Brooklyn, N. Y., in 1883, and one each by Dr. Sherwell and by Dr. H. F. Harris, of Atlanta, in 1902, the disease has till recently—1906-7—either disappeared or has been overlooked, or, what is more likely the physician when first studying one of these puzzling cases and inclining to the diagnosis of pellagra has accepted too readily the assertion of all authorities that pellagra does not exist in the United States, and has, therefore, given another and commoner name to his case (see final note), although his professional conscience may never have been satisfied. There seems, however, to be no doubt that some physicians did recognize the disease, for one H. E. McConnell, of Chester, S. C., who termed it pellagra in 1903, although unfortunately he did not publish his observations. According to E. J. Wood, of Wilmington, N. C., R. H. Bellamy, of Wilmington, and J. B. Wright, of Lincolnton, were the first to recognize the disease in North Carolina prior to 1907, but again unfortunately they did not publish their observations.

In spite of authoritative denial of the existence of pellagra in our country, a number of cases of the disease was recognized and

reported independently in 1907 by medical officers of Alabama and South Carolina asylums. In April, 1908, one of the writers (C. H. L.), stationed at Wilmington, N. C., reported to the U. S. P. H. & M.-H. Service that several cases of pellagra had recently been observed in that city. From that time Surgeon-General Walter Wyman has shown the most active interest in the study of pellagra both personally and officially. In his report for 1908, Dr. Wyman says: "These reports indicate that the disease is more prevalent than has been supposed and that it may in future assume importance from public health and economic standpoints. . . ."

"Whether this disease in the Southern States be true pellagra or not has so far proven itself a factor to be reckoned with and it should receive most careful study."

In the summer of 1908 the disease was identified with Italian pellagra by two South Carolina physicians, Dr. J. J. Watson and one of the present writers (J. W. B.), who visited Italy for the purpose of studying the disease. Following these observations and publications, pellagra has been recognized in many different localities, such as Wilmington, Morganton and Charlotte, N. C., Augusta, Milledgeville and Atlanta, Ga., and many places in South Carolina as well as in other States. For the last year and a half, the South Carolina State Board of Health has been actively investigating the pellagra problem, by special inquiry, conference and finally by original research with the cooperation of Surgeon-General Wyman, of the U. S. Public Health and Marine-Hospital Service, who assigned (May, 1909) one of the present writers (C. H. L.) to duty at Columbia and vicinity for this purpose.

Recently a letter of inquiry (see below) about pellagra was addressed by another of the present writers (C. F. W.) to the superintendents of State hospitals for the insane in the United States, and the following table embodies their replies:

To 164 inquiries 120 replies were received, about 20 being in the affirmative.

New York: Number of cases, few (near Brooklyn).

Pennsylvania (Dixmont): Number of cases, 1; recognized, 1909 (Hungarian).

- Maryland: Number of cases, 1 or 2; recognized 1909; probably existed since 1905; male, 1; female, 1.

Virginia (Staunton): Number of cases, 1 (?); recognized 1908.

Virginia (Petersburg): Number of cases, 1 (?).

- North Carolina (State Hospital, Raleigh): Number of cases, several; recognized 2 or 3 years; probably existed 10 years.
- North Carolina (State Hospital, Goldsboro): Number of cases, 8; recognized 1908; probably existed 10 years; female, 8.
- North Carolina (Dr. Taylor, Morganton): Number of cases, 8; probably existed 22 years.
- North Carolina (State Hospital, Morganton): Number of cases, 20; probably existed 5 years.
- North Carolina (Dr. Wood, Wilmington): Number of cases, 75 in State since 1905, and 43 were females and 15 were white.
- North Carolina (Dr. Nisbet, Charlotte): Number of cases, 18; whites, 16; negroes, 2.
- South Carolina (State Hospital, Columbia): Number of cases, 125; recognized 1907; probably existed 25 or 30 years; male, 25 per cent; female, 75 per cent.
- South Carolina (Dr. Corbett, Greenville): Number of cases, 3.
- South Carolina (Dr. McConnell, Chester): Number of cases, 13.
- South Carolina (Dr. Neuffer, Abbeville): Number of cases, 9.
- South Carolina (Drs. Neil and Epting, Greenwood).
- South Carolina (Dr. Robt. Wilson, Jr., Charleston; Roper Hospital): Number of cases, 15—11 colored; 4 white—9 females; 6 males. Conservative estimate of number in city in past year, 30.
- South Carolina (Dr. Williams, Columbia): Number of cases, 500 estimated in State.
- Georgia (State Sanitarium, Milledgeville): Number of cases, 225; recognized 1907; probably existed about 25 years; male, 25 per cent; female, 75 per cent.
- Georgia (Grady Hospital, Atlanta): Number of cases, 10; recognized 1907.
- Georgia (Dr. Moore, Augusta).
- Florida (State Hospital, Chattahoochee): Number of cases, 12; recognized 1907; probably existed 4 years—male, 5; female, 7.
- Alabama (Bryce Hospital, Tuscaloosa): Number of cases, 25.
- Alabama (State Hospital, Mount Vernon): Number of cases, 160, and 2 private; recognized 1906, probably existed since 1906; male, small number; female, large number.
- Alabama (Dr. G. H. Searcy, Tuscaloosa): Estimated number of cases in State, 150 to 200.
- Mississippi (State Hospital, Jackson): Number of cases, 1; others in the State.
- Mississippi (State Hospital, Meridian): Number of cases, 2; recognized, 1907 (?); male, 1; female, 1.
- Mississippi (Dr. Sara Allen Castle, Meridian): Number of cases, 10.
- Louisiana (State Hospital, Pineville): Number of cases, 3. Dr. Thomas, Supt., (July 28, '09), expresses the belief that this disease is as common in Louisiana as it is in the Carolinas.

Tennessee (Baptist Orphans Home, Nashville): Number of cases, 11.  
Other cases in the State.

Kansas (State Hospital, Topeka): Number of cases, 6 (?); probably  
existed 15 years—male, 3; female, 3.

Kansas (Epileptic Colony Parsons): Number of cases, 1.

Illinois: Since this report was first made, one of the writers (C. H. L.)  
has (July 19, '09) identified 3 cases of pellagra at the Cook County  
Asylum at Dunning, Ill. In the last year or year and a half six other  
fatal cases have been under care there.

Illinois (State Hospital, Peoria, Aug., 1909): Over 40 cases.

Massachusetts (St. Vincent's Hospital, Winchendon): Number of cases,  
1, Aug. 15, '09.

This table seems to show that there are records of at least 1000 cases of pellagra scattered in 16 States. More than half of these have been reported from asylums or similar institutions. Sporadic or suspected cases have also been reported from Texas and Arkansas as well as from New York and Virginia.

Dr. E. J. Wood, of Wilmington, N. C., has records of 300 cases in the South, 70 of which occurred in North Carolina. It has been estimated that many hundred cases exist in Georgia, and Dr. Walker, of the State Sanitarium, Milledgeville, says that 2 per cent of admissions in 1908 had pellagra.

One of the present writers (C. H. L.) has reported to the Surgeon-General of his service a conservative estimate of 1500 cases in the Southern States since 1906. To show how conservative this estimate is it should be recalled that if 500 cases have been observed in asylums in the last two or three years; then upon the estimate made by the Italians that only ten per cent became insane the total number of cases would be nearer 5000 than 1500.

The asylum officers in Maryland have not observed cases, but Dr. W. S. Thayer, of the Johns Hopkins Hospital, has recently recognized and reported a case of the disease in Baltimore, and is satisfied that he observed a similar case several years ago (1905).

Nor does the disease seem to have appeared in the Tennessee hospitals for the insane, but 11 cases of pellagra have been reported as occurring in the Baptist Orphans' Home at Nashville.

Dr. Dewing, of the Long Island State Hospital, Flatbush, Brooklyn, N. Y., reports that he has had no cases of pellagra in his hospital, but "a few cases apparently from other sections of the country" have been observed in his vicinity.

One of us (C. H. L.) observed in New York, in 1908, a case of the disease in a white American seaman in the coastwise service.

Although not within the boundaries of the United States, it deserves passing note that Dr. B. K. Ashford has reported (*N. Y. Med. Jour.*, June, 278-08, page 1239) the observation of one case in Porto Rico, and Dr. J. A. Hayne has observed two cases on the Panama Canal Zone.

While absolute accuracy is not claimed for these statistics, they may be regarded as a fair indication of the extent and distribution of pellagra, as now recognized in our country, and their presentation at this time is made for the purpose of emphasizing the growing importance of the pellagra problem in the United States.

The following interrogations were used by one of the present writers (C. F. W.) in gathering statistics of pellagra:

1. Have you seen any cases of pellagra in your institution or in your State? .....
  2. How many cases have you seen? .....
  3. How long since you recognized the disease? .....
  4. If at all, how long do you think the disease has existed in your section? .....
  5. What proportion were male? ..... female? .....
  6. What was the occupation of those affected? .....  
Nationality? .....
  7. Do the products of Indian corn (hominy or meal) form a part of the dietary of the patients, and are these products derived from native or shipped corn? .....
  8. Were your patients from the poor .....; moderate .....; or well-to-do classes ..... , and were they from the city .....; town .....; or country .....
- ..... M. D.  
Supt. ....  
State of. ....

#### BIBLIOGRAPHY.

1864. Tyler & Gray, *American Journal Insanity*, October.
1902. Harris, H. F., Ankylostomiasis in an individual presenting all typical symptoms of pellagra.—*American Med. Assn.*, IV, 3-99.
1902. Sherwell, S., A note relative to a case of pellagra.—*Trans. American Dermat. Association*, 1902.
1907. Searcy, G. H., Epidemic acute pellagra.—*Journal American Medical Association*, XLIX, 1-37.
1907. Merrill, T. C., Sporadic case diagnosed as pellagra.—*Journal American Medical Association*, XLIX, 11-940.



1907. Harris, H. F., Pellagra.—Georgia State Board of Health, Fourth Annual Report.
1907. Babcock, J. W., What are pellagra and pellagrous insanity, etc.?—South Carolina State Board of Health, Annual Report, 1907, and American Journal of Insanity, April, 1908.
1908. Wood, E. J., Symptoms and diagnosis; McCampbell John, Observations on; Lavinder, C. H., Etiology and pathology; discussion.—Symposium on pellagra at meeting North Carolina Medical Society, 1908.
1908. Bellamy, R. H., Pellagra, its occurrence in this country.—Report of a case, Journal American Medical Association, LI, 5-397.
1908. Lavinder, C. H., Pellagra, a précis.—United States Public Health and Marine-Hospital Service.
1908. Conference on pellagra, Columbia, S. C., October 29, South Carolina State Board of Health, Annual Report, 1908. (Contains fifteen pages on the etiology, pathology, diagnosis, and treatment of pellagra, with many clinical histories by physicians of North Carolina, South Carolina, and Georgia.
1908. King, J. M., Pellagra with report of cases.—Southern Medical Journal, Vol. I, 5-289.
1908. Moore, N. M., Pellagra, report of case with remarks on etiology.—Journal American Medical Association, LI, 13-1076.
1908. Wood, E. J., Paper read at Philadelphia, not yet published.
1908. Leach, S., A case of pellagra.—Trans. Ala. Med. Assn., 1908.
1908. Searcy, G. H., Pellagra in Southern States.—N. O. Med. & Surg. Journal, Vol. LXI, 6-413.
1909. Randolph, Jas. H., Notes on pellagra and pellagrins.—Arch. Int. Med., 1909.
1909. McCafferty, E. L., Pellagra among colored insane at Mount Vernon Hospital.—Mobile Med. & Surg. Journal; Gulf States Jour. Med. & Surg., April 11.
1909. Watson, J. J., Pellagra.—N. Y. Medical Journal, LXXXIX, 19-1936.
1909. Moore, N. M., Prevalence of pellagra in United States; Alsberg, C. L., Relation of production and utilization of maize to pellagra; Lavinder, C. H., Etiology of pellagra; discussion.—Symposium at meeting American Society Trop. Medicine, 1909.
1909. Thomas, J. N., Report of cases, Asylum, Pineville, La.—About to appear, N. O. Medical Journal.
1909. Thayer, W. S., Report of two cases of pellagra.—Bulletin of the Johns Hopkins Hospital, Vol. XX, 193.

NOTE.—There seems little doubt that the condition now recognized as pellagra has existed in the Southern States for many years—25 or 30 at least—and has been regarded as an unusual manifestation of tuberculosis, syphilis, malaria, acute delirium, hook-worms, dermatitis exfoliativa, eczema, etc. Careful search through medical literature may disclose the fact that cases of pellagra have been reported under these or other diagnoses.