

BIENNIAL REPORT

of the

Arizona State Board of Health

For the Fiscal Years Ending
June 30, 1913, and June 30, 1914



Published by
Board of Control, by authority of Chapter XXVIII
Title 1, Revised Statutes of Arizona
1913, Civil Code

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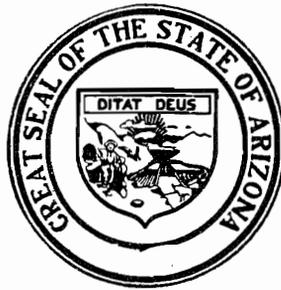
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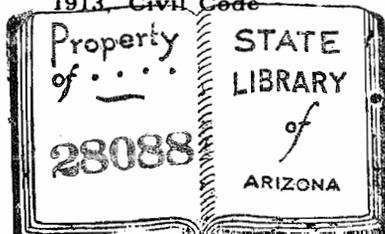
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LETTER OF TRANSMITTAL

Office of the State Board of Health and Vital Statistics,

Phoenix, Arizona, December 1, 1914

To His Excellency Geo. W. P. Hunt, Governor of Arizona.

Sir: In accordance with the Public Health Law of the State of Arizona, which requires that the Superintendent of Public Health shall on the first day of December of each even numbered year make a report to the Governor, I herewith, submit to you a report for the fiscal years ending June 30, 1913, and June 30, 1914.

Respectfully submitted,

R. N. LOONEY,
State Sup't. of Public Health.

Biennial Report of the Arizona State Board of Health

For the fiscal years ending June 30, 1913, and June 30, 1914.

In making my report for this office for the fiscal year ending June 30, 1912, I eliminated the vital statistics for Indian Reservations, stating that statistics were very incomplete from the Reservations. Soon after my appointment to this office in 1912, I took up with the Department of the Interior, Washington, D. C., the matter of securing vital statistics direct from the Agents on the Reservations, with the result that the Agents were promptly notified to co-operate with the State Board of Health in collecting vital statistics from the Reservations. Since the plan, of securing statistics direct from the Agents, was adopted, the returns of deaths from Indian Reservations are now reasonably complete. The returns of births, I am sure, are very incomplete. In my biennial report for the two years, from July 1, 1912, to June 30, 1914, I have included the vital statistics for Indian Reservations.

A point to be noted in my report, is, that the census of the State was taken April 15, 1910. This made it necessary to estimate the population of the mid-years of June 30, 1913, and June 30, 1914. These estimates are made by assuming an arithmetic progression, that, having been adopted by the United States Bureau of the Census, as being (generally) more accurate than a geometrical progression. Either method, however, is liable to serious error in a State such as Arizona, receiving a large immigration annually.

Tables of deaths and births have been tabulated every six months and published in the Bulletin of the State Board of Health. During the past two years we have continued the publication of the quarterly bulletin and in addition to the tabulated matter, the bulletins have contained articles on subjects relating to public health, and we now have about 3,000 names on the mailing list. A great many of the people to whom the bulletins are sent are people living in

the rural districts. Subjects have been chosen for the bulletins that would be educational to the public along health and hygiene. In addition to the publication of our Quarterly Bulletin we have from time to time published and sent out from this office pamphlets on public health and sanitary questions.

Believing that much good would result if the Public Health Officers of the State would hold regular annual meetings, where public health questions could be discussed, and ways and means devised for better protecting the public against disease. In view of the fact that a great many of the diseases that now afflict the people of our State could be absolutely prevented, it seemed reasonable to suppose, that one of the first steps necessary to secure more nearly ideal health conditions would be to organize our Health Officers throughout the State. Early in 1912 we effected an organization, known as the State, County, and City Health Officers Association, and held our first meeting May 10, 1912. Since then we have held annual meetings, and a great deal of interest has been shown in these meetings. We have had splendid attendance and have been able to create more interest in public health and vital statistics work among the Health Officers throughout the State, than, in my opinion, could have been accomplished in any other way.

TOTAL MORTALITY AND GENERAL MORTALITY RATE.

The total number of deaths registered for the year ending June 30, 1913, was 3,306. The death rate for 1913 fell from 15.65 per cent in 1912 to 14.58 per cent. The total number of deaths for the year ending June 30, 1914, was 3,521. The death rate for that year was 14.98 per cent, a slight increase over the previous year. This rate is greatly increased by the numerous deaths from tuberculosis, acquired elsewhere than in Arizona, and corrected for this cause the rates are 12.85 per cent for 1913, and 12.70 per cent for 1914. This is considerably lower than the last reported death rate for the registration area of the United States, and while not the true death rate, it is the near approximation obtainable without further data on sex, color, nationality, and age distribution of the population.

CLASSIFICATION.

Classified according to sex for the year ending June 30, 1913, 65.8 per cent of the deaths occurred among males, and 34.2 per cent among females, and for the year ending June 30, 1914, 63.6 per cent of the deaths occurred among males and 36.4 per cent among females. The explanation advanced for this excess of males is due in part to an excess of males in the population, to an excess of males dying from tuberculosis, acquired elsewhere than in the State, and to the larger number of males than females dying from external causes—injuries in mines, railroads, suicides, homicides, etc.

Classified according to color for the year ending June 30, 1913, 53.6 per cent of the decedents were Whites, 37.9 per cent were Mexicans, 5 per cent were Indians, and 3.5 per cent were Negroes and Chinese. For the year ending June 30, 1914, 52 per cent of the decedents were Whites, 37.5 per cent were Mexicans, 7.9 per cent were Indians, and 2.6 per cent were Negroes and Chinese.

Classified according to age the greatest mortality was among those under 4 years of age, this is due largely to the great number of deaths from diarrhoeal diseases among children under two years of age.

The diseases ranking highest, as cause of death, during the past two years, were tuberculosis, acquired elsewhere than in Arizona, diarrhoeal diseases, and pneumonia (true and unqualified).

TUBERCULOSIS (ALL FORMS).

The total number of deaths from all forms of tuberculosis for the year ending June 30, 1913, was 785. The number of deaths from Tuberculosis, acquired elsewhere than in Arizona, was 591, and for tuberculosis, acquired in Arizona, was 194. The total number of deaths from all forms of tuberculosis for the year ending June 30, 1914, was 779. The number of deaths from tuberculosis, acquired elsewhere than in Arizona, was 538, and from tuberculosis, acquired in Arizona, 241. There has been a slight decrease in the number of deaths from this disease acquired in Arizona during the past two years, although the number of deaths from tuberculosis for the past four years has remained practically unchanged.

For many years tuberculars have been coming to Arizona because of the superior advantages of climate for the treatment of this disease, but the indiscriminate manner in which these people have been sent to Arizona in the past, the voluntary coming of many who have not been professionally advised, many of them indigents when they arrive, and many of them becoming so soon after their arrival, has placed an economic burden on the State that is not to be lightly considered. Many of these have never been instructed by competent persons, as to the proper manner in caring for themselves, nor the proper manner of caring for their sputum for the protection of others, and the consequences are that a great many people of Arizona are becoming infected with tuberculosis, spread by the careless and ignorant consumptive strangers, notwithstanding the fact that the natural conditions are unfavorable to the development of the disease. We believe that the solution of this problem is the establishment in the Southwest Federal Tuberculosis Hospitals and Sanitaria and maintaining the same for the care and treatment of tuberculosis cases. The plans proposed by the Texas Anti-Tuberculosis Association for securing Federal Hospitals for stranger consumptives in the Southwest, in my opinion, offers one solution to the problem. There is a bill now pending in Congress which provides for the converting of suitable abandoned Military Forts and Reservations in the Southwest into Tuberculosis Hospitals and Sanitaria, to meet the conditions above described. We would recommend that the Arizona State Legislature pass a memorial urging upon Congress the advisability of such a measure.

TYPHOID FEVER.

In regard to the specific diseases typhoid fever was responsible for 49 deaths in 1913, and 74 deaths in 1914. There has been a perceptible decrease in the number of deaths from this disease for the past five years, which would indicate that the public health officials, of the country, and the people, who support their efforts, are awakening to the necessity of wiping out this filth disease. As this disease is preventable by sanitary measures, its eradication should be one of the principal duties of the local authorities, and can be accomplished by the prompt modification of all suspicious

cases, the protecting of milk and other foods from typhoid contamination, the eliminating of flies and their breeding places, the control of typhoid carriers, and the use of anti-typhoid vaccine wherever feasible.

PNEUMONIA (ALL FORMS).

The second most frequent cause of death during the past two years was pneumonia. Lobar pneumonia caused 311 deaths and bronchopneumonia 92 deaths in 1913, and in 1914 lobar pneumonia caused 231 deaths and bronchopneumonia 105 deaths. Bronchopneumonia usually occurs secondary to some other disease, affecting the bronchial tubes, most frequently measles and whooping cough, and when so occurring should be entered as the secondary cause of death. Possibly a number of the deaths reported as caused from bronchopneumonia were really caused from measles or whooping cough, and this accounts, in a measure at least, for the few deaths reported under measles and whooping cough.

DIARRHOEAL DISEASES.

The third most frequent cause of death during the past two years was diarrhoeal diseases, this is due to the high mortality among children under two years of age during the Summer months. For the year 1913 diarrhoeal diseases caused 307 deaths and 416 for the year 1914.

SMALLPOX.

Smallpox was responsible for 9 deaths in 1913 and 4 deaths in 1914. Although only 13 deaths were caused from this disease during the past two years, it is safe to say that it cost the State more in money from direct taxes than all other diseases combined. Smallpox is a disease, the prevention of which is very simple and has

been known for more than a century, a disease we might say of the ignorant, and a disease that will not spread to the recently vaccinated, therefore, the proper way to prevent the disease is by vaccination. While we have a vaccination law in this State for minors it is not generally enforced except in times of epidemics. A reasonable requirement would be, that which is enforced in most States, namely, that of requiring vaccination before allowing a child to enter school. Those admitted to our County Hospitals should also be vaccinated, as should the prisoners in the County Jails. A policy of such as this would practically eradicate the disease from our State. As to the protective influence of vaccination there can be no doubt whatever to the fairminded. Statistics, in proof of this, have been given again and again and it is not necessary that they be repeated.

DIPHTHERIA.

Diphtheria caused 16 deaths in 1913, and 13 deaths in 1914. The death rate from diphtheria has fallen steadily, with only slight interruptions, until it is now less than one half its height at the beginning of the last decade. This is as it should be, for diphtheria is a preventable and curable disease. High mortality from this disease indicates lack of efficient sanitary supervision, or failure to make timely use of antitoxin.

MEASLES AND WHOOPING COUGH.

Measles and whooping cough were the indirect cause of many of the deaths of children under five years of age during the past two years. It is very hard to estimate the exact number of deaths caused by these diseases, as a great many of the returns give bronchopneumonia as the primary cause of death, giving measles and whooping cough as a contributory cause.

SCARLET FEVER.

There was a decrease in the number of deaths from scarlet fever for both 1913 and 1914, as compared with the deaths from this disease in 1912. The number of deaths from this disease was 8 for the year 1913, 10 for the year 1914, as against 18 for 1912.

VIOLENT DEATHS (EXCLUDING SUICIDES.)

Under the heading of "Violent deaths (suicides excepted)" are included all deaths from external causes, which were not reported as caused by suicide. Accidents and unspecified violence caused 331 deaths in 1913, and 279 deaths in 1914. Of this number accidental gun shot wounds were responsible for 47 deaths in 1913, and 37 deaths in 1914. Accidents in mines and quarries were responsible for 43 deaths in 1913 and 36 deaths in 1914. Railroad accidents and injuries were responsible for 38 deaths in 1913 and 42 deaths in 1914. Homicide was responsible in 1913 for 35 deaths, and 36 deaths in 1914. During the past two years there has been a perceptible decrease in the number of deaths from accidents in mines and quarries. There were 43 deaths from mine accidents in 1913, and 36 deaths in 1914, as against 68 deaths from this cause in 1912. Other accidental injuries caused 168 deaths in 1913, and 128 deaths in 1914.

SUICIDES.

The total number of deaths from suicide in 1913 was 54, and 53 in 1914.

ILL-DEFINED CAUSES.

The number of deaths from ill-defined causes remained about the same for 1913 and 1914, as the previous year. Many of the deaths classified under this title occurred without medical attention. Coroners continue to insist that any cause of death, other than external, are "natural causes," and so state in most of the certificates they return.

In conclusion I will say, that during the past two years the mortality from all contagious diseases has been small. The State has been reasonably free from contagious diseases, however, during the early part of 1913 an epidemic of cerebrospinal meningitis pre-

vailed, and was generally distributed all over the State. More than one hundred cases were reported with a mortality of nearly fifty per cent.

During the first part of 1913 there was an outbreak of smallpox, in a very light form, in Maricopa County. The disease was prevalent in Phoenix during the entire year, and more than two hundred cases were reported, with only three deaths.

During the past year cases of diphtheria, scarlet fever, and measles, were reported from most all the Counties, but no epidemic of importance of any of these diseases prevailed.

The most virulent contagious diseases are well looked after by the Boards of Health, and the milder ones receive some attention, but not the attention it is hoped that will be given them in the future.

With few exceptions the County and City Boards of Health have done splendid work in the supervision of public health matters.

BIRTHS.

The total number of births for the year 1913 was 3,745, and for the year 1914 was 4,500. This is a decided increase over the number of births reported in 1912, and while this does not represent the correct number of births for the past two years the reports show that we are getting more complete returns of births than we have been in the past. Some physicians are very careless in reporting births, and where there is no physician in attendance many of the births, are never reported, thus making it very hard to secure a correct number of children born in the State.

Appended are tables of deaths and births, classified for the former according to sex, color, age, and cause of death, and for the latter by Counties and months.

DEATHS, BY SEX, COLOR AND AGE.

July 1, 1912 to June 30, 1913. Total number of deaths was 3,306.

July 1, 1913 to June 30, 1914. Total number of deaths was 3,521.

	July 1, 1912 to June 30, 1913	Per Cent
Male	2174	65.8
Female	1132	34.2

	July 1, 1913 to June 30, 1914	Per Cent
Male	2239	63.6
Female	1282	36.4

	July 1, 1912 to June 30, 1913	Per Cent
White	1772	53.6
Mexican	1253	37.9
Indian	165	5.0
Other	116	3.5

	July 1, 1913 to June 30, 1914	Per Cent
White	1831	52.0
Mexican	1319	37.5
Indian	278	7.9
Other	93	2.6

	July 1, 1912 to June 30, 1913	Per Cent	July 1, 1913 to June 30, 1914	Per Cent
Under 1 year.....	485	14.7	649	18.4
1 to 4	348	10.5	337	9.6
5 to 14	137	4.2	171	4.9
15 to 24	331	10.1	317	9.0
25 to 34	586	17.7	536	15.2
35 to 44	434	13.1	464	13.2
45 to 54	292	8.8	302	8.6
55 to 64	252	7.6	262	7.4
65 and Over	334	10.1	390	11.1
Unstated	107	3.2	93	2.6

DEATHS FROM PRINCIPAL CAUSES.

	July 1, 1912 to June 30, 1913	July 1, 1913 to June 30, 1914
Typhoid Fever	49	74
Malaria	4	1
Smallpox	9	4
Measles	19	23
Scarlet Fever	8	10
Whooping Cough	21	8
Diphtheria and Croup	16	13
Influenza	24	2
Other Epidemic Diseases	81	43
Tuberculosis of the Lungs	550	510
Tuberculosis of the Lungs:		
Acquired in Arizona	167	205
Tuberculous Meningitis	17	7
Tuberculous Meningitis:		
Acquired in Arizona	16	19
Other Forms of Tuberculosis	24	21
Other Forms of Tuberculosis:		
Acquired in Arizona	11	17
Syphilis	10	27
Cancer	56	80
Simple Meningitis	34	13
Cerebral Hemorrhage and Softening	81	63
Organic Heart Disease	106	77
Acute Bronchitis	31	12
Chronic Bronchitis	5	9
Pneumonia	311	231
Bronchopneumonia	92	105
Other Diseases of the Respiratory System	60	5
Diseases of the Stomach and Intestines	89	85
Diarrhoeal Diseases	307	416
Appendicitis	20	17
Hernia, Intestinal Obstruction	27	25
Essential Diseases of the Liver	48	35
Bright's Disease and Nephritis	159	149
Diseases of Women (Not Cancer)	33	3
Puerperal Septicemia	16	9
Other Puerperal Accidents	16	14
Congenital Debility and Malformation	33	29
Old Age	64	77
Accidental unshot Wounds	41	43
Injuries by Machinery	3	3
Mines and Quarries	47	72
Railroad Accidents and Injuries	47	33
Injuries by Horses and Vehicles	14	10
Other Accidental Injuries	114	117
Suicide	51	56
Homicide	29	42
Other External Causes	22	13
All Other Causes	196	335
Ill-Defined Causes	226	359

TABLES OF BIRTHS.

July 1, 1912 to June 30, 1913.

	July.....	August.....	September..	October.....	November...	December...	January.....	February....	March.....	April.....	May.....	June.....	TOTAL.....
Apache	13	10	21	10	13	6	20	7	10	11	15	10	146
Cochise	48	68	55	69	60	58	58	44	74	54	69	55	711
Coconino	9	8	15	7	6	16	9	15	14	7	9	15	130
Gila	31	24	23	32	19	19	18	17	28	34	28	25	298
Graham	20	22	16	12	18	17	23	14	15	20	14	22	213
Greenlee	34	38	55	32	40	25	41	41	41	30	21		398
Maricopa	80	78	66	60	80	63	63	66	80	63	71	85	855
Mohave	6	3	2	5	2	4	5	5	5	5	2	11	55
Navajo	32	27	266	16	10	14	10	8	12	26	6	17	204
Pima	15	13	26	20	17	18	15	28	16	17	16	15	216
Pinal	4	6	7	3	7	6	14	10	7	9	6	3	82
Santa Cruz	3	9	8	2	2	4	14	10	13	9	15	8	97
Yavapai	11	13	21	22	23	17	21	12	18	23	16	15	212
Yuma	10	6	15	10	9	8	15	9	20	5	9	12	218
TOTAL	316	325	356	300	306	275	326	286	352	313	297	293	3,745

Stillbirths, 197.

