[Report 1904] / Medical Officer of Health, Sidmouth U.D.C.

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THE

Health of Sidmouth

FOR 1904.

The Medical Officer's Annual Report
Presented at the Meeting of the Urban District Council, on Jan. 27th, 1905.

Culverwell, Typ., Sidmouth.

The Health of Sidmouth for 1904.

To the Chairman and Members of the Sidmouth Urban District Council.

GENTLEMEN,—

I have the honour to furnish the Council and the Local Government Board and Devon County Council with my 31st Annual Report, embodying the Births, Sickness and Deaths that occurred in the Sidmouth Urban District under your charge, during the year 1904, and the proceedings taken in relation thereto. As I have before remarked, I consider the primary duty of a Sanitary Authority is to protect the health of the people rather than to guard the ratepayers, I feel great pleasure at the opportunity of congratulating the Council on the highly satisfactory nature of the report as regards the Mortality, absence of Zymotic Disease, and the general health of the district during the period in question. As bearing on the question of health, I may be pardoned if, as heretofore, I preface my remarks with a few meteorological data, bearing on the district under the Council's charge, registered by Miss C. Radford, of Sidmount.

CLIMATE OF SIDMOUTH FOR 1904.

"Hours of bright sunshine 1725 hours, being about the average of the last eight years. 74 more than in 1902, and 370 hours more than in Regent's Park.

Highest temperature in the air, July 7th, 76.1	
Lowest temperature in the air, Feb. 29th, 23·5	
Highest in the sun, July 16th, ...	136
Lowest on the grass, February 29th, ...	20·
Mean of daily maxima	55·8
Mean of daily minima	44·1
Mean of the year	49·9
The average mean of last 32 years ...	49·3
Mean humidity of the air at 9 a.m. ...	84·2

The record over so long a period conclusively proves the equable character of our climate, and, as I have repeatedly pointed out, satisfactorily accounts for its usual remarkable coolness in summer, and its mildness in winter, the extremes being about 18 degrees below Greenwich.

The mean daily range, i.e., the difference between the highest temperature in the day and lowest at night, was for the last 25 years 8·5.

The rainfall for 1904 was 33·14, which is 5.77 above the last 20 years' average (31·88.) Average rainfall given in "The Times" for London (Brixton) is 34·39; that for 1903 37.90; Botanic Gardens 38·67. The red sandstone and gravelly soil of the district exert an important and healthy influence on the rainfall by securing the soil from all unhealthy retention of moisture."

The mean temperature of		1903-1904	winter was	42·5
,,	,,	1902-1903	,,	43·4
,,	,,	1901-1902	,,	41·7
,,	,,	1900-1901	,,	41·5
,,	,,	1899-1900	,,	41·7
,,	,,	1898-1899	,,	41.5
,,	,,	1897-1898	,,	41·8
,,	,,	1896-1897	,,	41·6
,,	,,	1895 1896	,,	41·8
,,	,,	1894-1895	,,	30·8
,,	,,	1893-1894	,,	40·8
,,	,,	1892-1893	,,	41·4

Mean of 12 years, approximately, 40·5, including the very severe one of 30·8, of 1894-95.

In the early morning and evening on the moors (fed by the air of the Atlantic, Dartmoor and Exmoor) from one and one-and-a-half miles distant from the town, the summer coolness is remarkable. During the great summer heat of 1899 the mean temperature of the month of August at Sidmouth was 63·3, the highest registered during the previous 30 years, and, notwithstanding, this, it was from 10 to 20 degrees cooler than London, and five degrees cooler than at any other Health Resort on the South Coast during the greater part of the month.

Sidmouth is effectually sheltered from the east and north winds by its hills, which attain the altitude of from 500 to 700 feet, within half-a-mile to two miles of the town. As March is generally considered an inclement month, it may be interesting to record that its mean temperature for the last 32 years at Sidmouth was 42·3.

The area of the district is 1600 acres, present inhabited portion about one-tenth. Population at 1891 census 3,762; at census I901, 4,201: showing an increase of 439. Of the 13 parishes in the Union, 3 only shewed an increase, viz: Venn Ottery 1, Feniton 33, Sidmouth 439.

DWELLING HOUSES.

Year.	Houses.	Under £8 Rateable Value urgently required bnt diminished.	Over £8 Rateable Value
1898	9C0	553	407
1901 Census	1030	580	450
1902	1041	384	657
1903	1051	373	678
1904	1081	373	708

Average number of persons per house 4.07.

The great reduction of houses (207) under the rateable value of £8, and increase (258) of houses over £8, renders it difficult for the Working Classes to obtain the class of dwellings so urgently needed, viz., of a *gross rental not exceeding* £10. Apparent as were the evidences of increasing overcrowding, and my inability to execute my duty as Medical Officer of Health in condemning many present inhabited dwellings as unfit for human habitation from the absence of others for the inmates to occupy if ejected, when I first brought the subject forward, the above figures coupled with a strongly-expressed petition to the Council at its last November meeting, and signed by over 500—a *sixth* of our adult population—chiefly composed of our artizan and labouring classes, urging on the Council the erection of Working-class Dwellings painfully strengthen and strongly confirm my own opinion expressed at that meeting. viz.. "that the erection of more houses for the Working Classes is a matter of extreme urgency towards improved sanitation and consequently safety to the public health." "Overcrowding" is still increasing, and various "Schemes" are at present talked of towards supplying these dwellings, but unless they embrace the advantages intended in the petition referred to and strongly advocated by myself, viz., houses *not exceeding a gross rental of* £10, the desired object will not be obtained. Towards showing that such houses can be built at a profit, I have prepared a "Table *re* Working Class Dwellings,' giving information on the subject, a copy of which I shall be pleased to present to members of the Council and others if applied for.

In a Newton Abbot recent report in connection with the "Housing of the Working Classes" which has been satisfactorily carried out in its Urban District, the merits of the *semi-detached* house are thus tabulated :—(1) *There is free circulation of air and direct access for the sun's rays on the three unattached sides of the house;* (2) *a staircase sash window can be provided at the side*

without architectural difficulty; (3) *the back road, a space often littered and untidy, with its difficulties and expense of lighting and keeping in repair, can be dispensed with, the scavenger obtaining accees at the side;* (4) *the drainage of each house can be brought to a front sewer without passing under the buildings;* (5) *the monotony of a long row of similar dwellings is broken and all slum-like appearance avoided;* (6) *the available open space exclusively belonging to the house is increased.*

The Births during 1904 were males 47; females 47; total 94, against 72 last year, and equal 20·9 per 1000 population. In the decennial period, 1895-1904, the average was 19·5 per 1000. The births for 1904 were the highest during my tenure of office (33 years) as Medical Officer of Health, but still is a low rate. The birth rate for England and Wales in 1904 was 28·5 per 1000. Like so many other places—Health Resorts especially—the birth rate is a diminishing quantity, owing apparently to the migration of young persons to the large centres. On the other hand, this rate in great towns remains relatively high, especially in the dense manufacturing centres of the North, attaining 30 and even approaching 40 per 1000. The same disadvantageous contrast holds in London itself,—in West end districts a rate approximating that of Devon—in the East a high figure as in manufacturing places. Thus the chief additions to the nation, its future growth, is not from those living under the best conditions for physical development, but rather the reverse. Unhappily, no remedy is available for this.

The *Deaths*, including 1 accident, and 12 visitors who arrived with their fatal disease on them, were: males 33, females 30, total 63, or 14 per 1000. Excluding visitors and non-residents—and accident, 11·0 per 1000. In the decennial period, 1894-1903, the average death rate was 15·9 per annum *with* visitors, and 12.30 *excluding* visitors.

The death rate for England and Wales in 1904 was 15·4 per 1000.

3	deaths took place	under 1 year	
3	„	„	between 1 and 5 years
1	„	„	„ 5 and 15 years
3	„	„	„ 15 and 25 years
16	„	„	„ 25 and 65 years
37	„	„	„ 65 and upwards

The infant mortality 3 for the year 1904 was equal to 31·9 per 1000 births, 105 *below* that of England and Wales (136), and 72 below the Registrar General's Health District Rate (103.)

The average infant mortality per 1000 births during the decennial period, 1894-1903, was 48. I have repeatedly pointed out that a low infant mortality may be generally considered as important an index to good sanitation and healthfulness as a low zymotic death rate; especially may it be considered so when we bear in mind that in the present day the "bottle" has largely taken the place of the breast, and "suckling" well nigh becomes a "lost art," and that the deaths amongst children under three months of age either wholly or partially fed on artificial foods, are *fifteen times* as great as amongst an equal number of infants fed upon breast milk alone.

Of the 37 deaths at 65 and upwards :—

13 were between the ages of 70 and 80.
7 " " 80 and 90.
3 " " 90 and 100.

The Zymotic (infectious) death rate for 1904 was 1. For the previous eleven years 1893-1903, it was *one death* only. *One case only* of infectious disease was notified during the year, viz., of diphtheria, and no other case followed, every possible sanitary precaution, in the form of isolation and disinfection having been observed.

In the ten years 1895-1904 the cases *notified* were 2, 3, 2, 0, 6, 1, 3, 3, 3. 1,—total 24.

Diarrhœa.—Among the conditions that point to an unfavourable atmospheric state, and tend to promote and aggravate diarrhœa and choleraic ailments is a high temperature with a moist, heavy, and stagnant atmosphere. What evidence does Sidmouth afford on these points? The remarkable fact that *one* death only from diarrhœa has been registered in the District during the past *twenty-four* years.

The five preceding tables—Infant, Senile, Zymotic, Infectious Notifications, and Diarrhœa Mortality, are in the highest degree satisfactory, and should justly add to the reputation of Sidmouth as a Health Resort.

The following extracts from the Statistical Report of the Devon County Council for 1901 will, I think, bear repeating :—

"Sidmouth, Urban.—The population shows what must be considered a gratifying increase, considering the size of the town (see Table 5). In the decennia part of Table 1 it occupies the best position in the infantile mortality column, having a lower figure than any other district, whether Rural or Urban, and its Zymotic rate is amongst the least. The birth rate

has declined during 1901, being below that of the preceding year, and the 10 years' average, and the death rate rather above the corresponding figures, discounted however, by the circumstance that more than half the mortality was in persons over 65 years. The infantile rate is small, and it is greatly to the credit of the district that not in one year of the intercensal ten has this once attained 100 per 1000 births; even of the four deaths registered under 1 year of age three died within six days of birth, and these included twins. The notifications were only 1 diptheria, and 2 scarlet fever; the first of these constitutes the only zymotic fatality for many years. The figures which must be agreeable reading for the inhabitants of the town, are all set forth in the Tables. Dr. Pullin again comments on the immunity of the District from Phthisis, but adds that two visitors who arrived in a hopeless stage of the malady, are included in the loss assignable to it. An instructive history of a small-pox outbreak many years ago is quoted on page 31. The provision of a proper Isolation Hospital is strongly advised, and it is further strongly urged that co-operation with adjacent districts in this matter be permitted if erected outside the District."

In the same official report for 1903 Sidmouth is thus alluded to:—

Sidmouth, Urban.—This town, always in a prominent position in Table 1, this year occupies the premier place, not for the first time. The birth rate has fallen to a figure far below that of 1902, and below the decennial average. Happily the death rate has moved in the same direction; in a district of this sort with (see census of 1901) a small infantile and a large senile population, this rate is mostly dependent on the mortality amongst the aged, which this year is very high (Table 4). The infantile rate is extremely satisfactory and the best but one in Table 1; indeed, Sidmouth occupies the best position in one or other of the columns of that table with notable frequency. Again the death-rate from the ordinary zymotics was *nil*. The notifications were only 3 in number, viz., 2 scarletina and 1 typhoid, none of local origin. Dr. Pullin devotes a paragraph to the immunity from phthisis and adds that of the 7 cases he tabulates, 4 were visitors in a hopeless condition on arrival. The most noteworthy page in the report refers to the Housing question, and on this the Medical Officer of Health is very complete; a strongly expressed petition on the subject signed by 500 adults, was presented to the Council desiring the erection of

dwellings having a gross rental not over £10. This is looked on as an urgent matter, as overcrowding is increasing and under present conditions it is impossible to condemn those houses that are unfit for habitation This important subject seems to be engaging a good deal of local attention and various schemes and suggestions are under discussion; it is not improbable that this progressive town may be a pioneer in the removal of some of the difficulties necessarily encountered."

The cause of Sickness and Deaths appear in annexed Statistical Tables. On the general analysis of the causes of death, we find them connected with the three following groups of diseases:—General, 9; Constitutional, 21; Local (various organs), 33.

The Council, I hope, will pardon my again urging it to rigidly enforce in the case of new houses the condition that all bedrooms have fireplaces, being as necessary for ventilation as for warmth, oil stoves and lamps, as I have frequently pointed out, being dangerous substitutes for fires in the sick room, especially without some proper system of ventilation. I have experienced many instances in my practice of very critical effects from this source. Especially is this the case in Influenza and all affections of the respiratory organs. This is easy to explain when we consider that the irritating and injurious results of petroleum combustion take the place of the life-supporting oxygen. The absence of *Smoke and Smell* is no proof of the absence of the ordinary irritating products of combustion. On the contrary, it is generally the reverse.

Infectious Diseases.—Of this class, as I have before stated, one case only was notified during the year, which was clearly imported. Towards preventing the spread of infectious diseases, much may be done by home isolation and disinfection and liberal ventilation. I have frequently succeeded by very simple isolation, and even moderate use of disinfectants, in limiting it to a single patient in large establishments. To this principle, rigidly carried out, I attribute the fact that the three cases alluded to above as notified during the year 1903, were followed by no fresh case. Again the moderate use of disinfectants in any sick room tends to lessen the severity of most diseases. The form of disinfectant used is a matter of the utmost consequence. A large number advertised as "disinfectants" and *non*-poisonous, are simply deodorants—destroy odour or smell—but exercise no germicidal power. A disinfectant to

be efficient must be *poisonous*. There may be an instance or two where they are not very much so. Nevertheless it is a good rule to suspect a disinfectant advertised as non-poisonous, as such, in 99 cases out of 100, is useless. Calvert's pure Carbolic acid may always be relied on if used as directed.

Phthisis.—Six deaths were due to this disease; four were visitors who arrived in the hopeless stage of the disease.

Again and again I have taken occasion to draw attention to the peculiar immunity of our resident population from Phthisis. To what this is due, is not so easily explained, but the geological and meteorological conditions of the locality before alluded to strongly point physiologically to the probable source of this important fact, and may tend to confirm the correctness of the opinion I have presumed so often to give, viz., that if the sufferers from phthisis and other tuberculous affections were sent here in the incipient or less advanced stage of the ailment, instead of, as it most frequently happens, in the last or hopeless stage, permanent restoration to many, and incalculable relief to all, would follow. The Autumn, Winter, and Spring months at Sidmouth are the most favourable to the tuberculous invalid. As I have mentioned in former reports, a low death rate from this disease, or its recognised absence (as exists here) from any locality is of the utmost importance, seeing that over *one-sixth* of the *mortality* of the country is ascribed to it. The establishment in the County of a Sanitorium for the treatment of tubercular disease is urgently needed, and it is gratifying to know that this important matter is receiving the attention of the "Devon and Cornwall Medical Association," and that a "Sites" Committee has been appointed, and a spot chosen for its erection. Personally, I should strongly prefer a Sanitorium in "Blocks." The Devon County Council is also engaged in the question of providing an Isolation Hospital for Phthisis.

The following are a few instructive figures showing the *Decline* in the mortality from Phthisis during recent years. In 1858 the loss of life was 2,565 per million—in every five year periods since it has fallen, and in that from 1866 to 1890 was 1637—now it is 1330. In 1899 the number of deaths were 47,000 in England and Wales; in 1900 with a growing population, only 40,000. The same in Devon for three years in succession a record has been established in its fatality. On the excellent authority of Sir H. Beevor, Bart., M.D., it is stated that from 1865 to 1897 the

mortality from phthisis in boys from 10 to 15 years of age has sunk from 100 to 32. and this he assigns to better food rather than better sanitary measures. He also says: "Tubercle is not *highly contagious*." My own over half-century local experience tends strongly to this conclusion. Sir H. Beevor further says: "It is not a disease that requires isolation, and only under *quite exceptional conditions does it appear to be infectious at all*. The instruction of the young in the general principles of hygiene will prove more valuable eventually than isolation." Towards the latter object the Medical Profession is now powerfully urging on the Government to adopt measures in connection with the Education Act. Sir H Beevor's above opinion completely negatives the idea that Phthisis should be made a notified disease. Personally, I have always been of this opinion, for besides the terrible social and domestic interferences and discomfort it would occasion, the remedy, as aptly expressed by the Medical Officer of our County Council, "is not of the sanitary, but of the suppressive type." To suppress a disease by a careful system of watching is not uprooting its cause, but rather straining after a pretended than a real victory.

The same local and geological and meteorological conditions previously referred to, possibly explain to a great degree the marked beneficial effect of the Sidmouth climate on affections of the lungs, liver, and kidney, neuralgia and rheumatism, and diseases of children, the rareness and mildness of epidemics, and total absence of endemics and many serious and painful ailments—typhus, calculus, and ague for example.

Cancer.—The number (4) of deaths from this disease was about the average of former years, two were visitors. As the Council are aware, investigation of this class of disease is proceeding most vigorously in different parts of the world, and there is every reason to hope that light will be thrown upon the disease which will lead to its more successful treatment. At present there is. unhappily, no cure for cancer. The result of my long local experience does not favour the idea of the disease being hereditary, or of its having increased during the past half century, certainly not in this locality. That it has become a more recognised disease there can be no doubt, which may in some degree account for its apparent increase.

Small-pox.—It will be satisfactory to the Council to know that the vaccination of this district has always received special approval of the Local Government

Board Inspector, and from my official knowledge as Pnblic Vaccinator for a period approaching fifty years I am able to state that a case of *arrear* of a Sidmouth child is an exception to the rule. Vaccination has always been well respected in your district, and since the passing of the new Vaccination Act there have been (I believe I am correct in saying) only *six* "conscientious objectors" in Sidmouth, Sidbury, and Salcombe-Regis. There certainly would not have been any "conscientious objectors" or the necessity for a "Conscience Clause" in the nineteenth century had the present generation witnessed the cruel effect of the loathsome and fatal disease before Jenner's wonderful discovery of Vaccination in 1798, and unfolding the beneficient provisions of nature for the mitigation of her most baneful pestilence.

In connection with Section II. of the Act (usually known as the Conscience Clause) it would seem in order to give completeness to a national system of small-pox protection, that a clause of some sort should be introduced in reference to *unvaccinated* children entering on school life. As the Admiralty Surgeon and and Agent of the District, I am able to say that no man, woman, or child *unvaccinated* is allowed to reside in H.M. Coastguard Buildings. Then why should a child be allowed to attend a public school in the unprotected state? After much careful attention to the point of age for primary examination I am forced to the conclusion that the recent alteration in the period of three to *six* months is a most serious mistake. In the first place, my long experience as a Public Vaccinator, convinces me that the sooner the operation is done—say from 2 to four weeks after birth—the better. The infant takes less notice of it, and the clothing is well adapted to its favourable progress, and the parent is—admittedly—spared much anxiety and trouble to the arm, and lastly, the operation is more likely to prove successful and at the same time less painful. Further hereditary skin affections are much more likely to follow primary vaccination after three months than before. Further the number of Sacrifications to which the vaccine Lymph is applied is a point of the utmost importance towards a successful result. *Not less than four should be onsidered sufficient* as the following abstracts will show. At professional desire I beg to repeat Abstracts from Annual Report of 1901, as follows:—

Small-pox.—The few facts in connection with an epidemic that visited Sidmouth—imported from Sheffield. via Honito.., by a girl aged 14—17 years

since, limited to five cases, are a volume in themselves as bearing on Vaccination and Small-pox Protection, and I annex them as reported by me to the Urban District Council at the time, as follows:—

"In this short history we have every link supplied to justify with remarkable exactness the recognised etiology of the disease, in its infection, incubation and progress, and equally as to the value of Vaccination. For instance, take the position of those living in the house of the deceased, and the girl adjoining, and Elizabeth Churchill, living in Western-town. Lewis Sellek, aged 19, the lodger, who with *four* perfect marks of infantile vaccination escaped altogether. Lily Pile, aged 21, with *four* good marks escaped with a single pock, Daisy Pile aged 13, with *two good* and *two indifferent* marks, had ten or a dozen pock, leaving no scars, and took little or no notice of her illness, being out-of-doors each day. Kate Hayward, aged 13, with *only two good marks*, had from three to four dozen pock, leaving no scar, was confined to her bed for eight or ten days."

"Elizabeth Churchill, age 41, *unvaccinated*, had a critical attack, confining her to her bed five weeks, and convalesced greatly marked."

Frank Pile, aged 22, *unvaccinated*, died of the disease on the 8th day, from as confluent a form of the disease as I ever saw, my experience extending to between 200 and 300 cases during an epidemic that followed the severe Cholera epidemic at Portsmouth in 1849, in which I was engaged under the (then) Government Board of Health.

Passing from the ridiculous to the sublime, so to speak,—from little Sidmouth to the result of 25 years of Re-vaccination in Germany—we find a triumphant success placed before the world year by year, as follows:—

Small-pox deaths per million of population.

PRUSSIA.

Before 1874 (1866-74)—620, 432, 188, 194, 175, 2,432, 2,624, 357, 95.

After 1874 (1875-85)—36, 31, 3, 7, 13, 26, 36, 36, 20, 14, 14.

(1886-98)—5, 5, 3, 5, 1, 1, 3, 4, 3, 0·8, 0·2, 0·2, 0·4.

(GERMAN EMPIRE (average population, 52,000,000).

1886-99)—**4**, **3**·5, **2**·3, **4**·1, **1**·2, **1**·0, **2**·1, **3**·1, **1**·7, **0**·5, **0**·2, **0**·1, **0**·3, **0**·5.

Compare AUSTRIA without compulsory vaccination.
1887-99—440, 640, 520, 250, 290, 260, 250, 110, 47, 35,
Compare ENGLAND with a law of compulsory, vaccination in infancy only.
1887-98—18, 36, 0·8, 0.6, 14·7, 49·3. 27·3, 7·3, 17·6, 0·8, 8·1.
Notice the irregularity owing to severe (localised) epidemics.

The lesson taught by the above experience seems made clear that in order to ensure completeness to a National system of Small-pox Protection a new Compulsory Vaccination Law be established, enforcing the vaccination, not only of all children in infancy but also re-vaccination of all children in the 10th or 12th year of life.

Passing on from the Medical section, I beg to refer to the measures and proceedings taken in relation to the public health generally, and many remarks mentioned in my 1901 report will be repeated in the present report.

Bye-Laws.—The revised code of bye-laws that came into force in the beginning of 1898 continue to prove of increased value, not only in strengthening the authority of the Council, but by materially aiding the efforts of the Sanitary officials. The bye-laws and the adoption of the Acts by the Council, which are now in force, *efficiently carried out, together with the systematic inspection of the district,* should bring the Sanitary Officials in touch with every suspected sanitary nuisance, and remove all causes for sanitary complaint. The resolution that was passed by the Council, on my recommendation, that builders, masons, and others, should be officially informed that no new or repaired drain was to be closed in before inspected and tested by the Sanitary Inspector, has proved of much value.

Isolation Hospital.—I must remind the Council that no definite steps have been taken to provide a permanent Hospital for *all* infectious cases, and I will emphasise this by repeating my remarks of 1900 on the subject. "The Sanitorium—so called—in the Alexandria Road, distant about one mile from the town, erected 18 years since to meet a sudden emergency from an outbreak of small-pox, imported from a neighbouring town, though not the substantial building that may be wished, is kept in repair, and could be rendered efficient for the reception of patients in a few hours in case of urgency, but from *existing indications* of extensive renovation, if not rebuilding, being required in a year, or two, I feel the

serious attention of the Council should be given in providing an Isolation Hospital without delay, of a *permanent and up-to-date character for* ALL *infectious cases*, feeling it to be a matter of paramount importance to a Health Resort to possess efficient means to isolate zymotic disease at *its origin*." I am anxious to again emphasise the above remarks by pointing out the increased imperative necessity for the Hospital alluded to in consequence of the close proximity (50 or 60 feetof recent newly-erected houses to the existing Sanitorium—so-called.

The Area from which patients should be received into such an Hospital, is, I consider, a matter of the utmost importance to Sidmouth, and, in my opinion, should be strictly limited to the *area over which the Council exercises control*. First, as promise has been given of early attention by Parliament to *compulsory* provision of Isolation Hospitals for *rural* districts, and secondly the inclusion of *outside* parishes would largely jeopardise a continuance of the favourable "Mortality and Notification of Diseases Tables," which our Urban District has so long enjoyed, and which is so essential to the reputation of a Health Resort so extensively patronised as Sidmouth continues to be.

Water Supply.—A good Water Supply is the primary necessity to sanitation. In this respect Sidmouth is highly favoured, possessing as it does a natural supply —abundant in quantity, and of the *highest perfection in quality*. The remarkable *softness* is a point of therapeutic value. It is derived from the greensand strata overlaying the red sandstone on Peak and Pinn hills, distant 1 and 6 miles from the town respectively, the sources and springs being at an altitude from 400 to 600 feet above the sea level. A very important point in connection with the sources of the supply is the fact that the *water sheds are completely free from human habitation*. The Sidmouth Water Company's supply, which is the water principally in use, is fully 200,000 gallons per day, or 50 gallons per head of the population.. Remembering the distress and loss of life at Maidstone Paisley, and other places during recent years, it will be satisfactory to the inhabitants of the district to be informed that at careful inspections of the intakes and sources of supply made by the Sanitary Officials of the Council, both were found to be thoroughly safeguarded and protected from any possible contamination. The mode of intake at Pinn Hill, at an altitude of 600 feet, is an interesting and excellent one, being from the springs direct, without the intervention of a reservoir, thus preserving the

natural purity and æration of the water. The amount of æration is so great that it generally presents a marked *opacity* by the presence of minute air bubbles when first drawn, but rapidly becoming clear and brilliant.

With regard to the proof of its purity, see analysis in appendix) the Water Company is responsible for the production of a satisfactory periodical analysis to the Council, and the Council is responsible for a periodical inspection of the sources of supply by its Sanitary Officials. Both are faithfully and satisfactorily fulfilled. To those dependant on *Wells* for drinking water the use of a reliable Filter is of the highest importance. To secure the water *germ free*, the ordinary filters are generally of little use, indeed are mostly germ producers and distributors. It appears to be agreed by many of the highest sanitary and scientific authorities, and by its use in the French Army for many years, and in the most unhealthy climes that the Pasteur-Chamberlain filter, as manufactured in this country by Messrs. J. Defries and Sons, is the only one that can be relied upon for removing specific infective material from drinking water. From my own practical experience of its use, during a long period, I can fully endorse the foregoing opinions. This particular kind of filter was placed by order of the Medical Department of H.M. Navy on board the H.M.S. Ophir for use during the Duke of Cornwall's Colonial Tour. In connection with this subject of purity, I may mention having in my possession a carefully preserved specimen of a portion of a *lead pipe in constant use in a house service of Sidmouth water for the period of sixty years.* 1831 *to* 1901. *Its internal surface being absolutely perfect and free of the slightest chemical change conclusively proving the absence in the water of those deleterious constituents so frequently met with which affect alike this chemically sensitive metal and also—what is of vast more importance*—the human body by its effect on certain organs; kidney, glands and liver for instance.

Sewerage.—In connection with our Sewerage System the recent decision of the Council to extend the main sewer, together with the Water Company's supply, to the highest portion of the North hamlet of Woolbrook is calculated to prove of great sanitary importance, and domestic comfort to the locality. As Medical Officer of Health it has received my strongest support, and to the liberal offer of Mr. Balfour (lord of the manor) to pay £250 towards its cost will doubtless be due its early accomplishment.

In reference to Sewerage I would urge careful attention being given to the Sewer Flushing Tanks, and a periodical report made to the Council of their efficient working or otherwise, their efficiency being a matter of great sanitary importance; and not much less so, is attention to, and frequent emptying of, the large sand tank in the roadways, the size—in my opinion a very questionable improvement—embracing danger of a nuisance if neglected.

Scavenging is scarcely second in importance to pure water and an effective system of sewerage. In connection with the district scavenging, I am pleased to be able to mention all ashpits in the town are abolished, which implies *daily* attention to this important matter. The deposit of ashpits and street refuse were for years a trouble and a nuisance, and the removal of the refuse heap from its late site to a spot further north, and further from dwellings, was expected would abate a long, justly complained of nuisance and trouble to the Council. Unfortunately there seems a probability of its early removal elsewhere, from its having led to serious complaints from the owner of the site and surrounding tenants, from the unnecessary large accumulation of refuse that has been allowed to take place. Should its removal be necessary the course adopted at Dawlish and Paignton, both on the coast, may be worthy consideration, viz., to dispose of refuse amongst farmers; or the purchase of an up-to-date 'Refuse Destructor.' Failing any other and better method, the Council can no doubt and without any difficulty, reduce the accumulation by more frequent sales, of which a condition would be that the purchasers should remove their lots quickly.

In the matter of street cleaning there is great room for improvement, I regret to be obliged to say. The back streets, courts and approaches to premises for example do not apparently receive the necessary attention, and complaints are frequent. They should be as clean and orderly as the main streets, more so, in a sanitary point of view. It has been truly said that nothing can be more agreeable to the senses, more to the honour of the inhabitants or conducive to their health than a *clean town*; nor does anything impress a stranger sooner with a disrespectful idea of any people than its opposite.

Milk Supply.—As mentioned in my 1901 report, "Acting under the adoption of the Council" of the "Cowsheds and Milkshops Order," arrangements

have been made with the Council's Sanitary Inspector, to continue the careful inspection of all Dairies within the district, supplying milk to the town. All wells have been closed, and every dairy is supplied with the Company's water. During the past year an important improvement has been effected by the removal of a large dairy from the centre of the town, to a distant hamlet of the distr ct, and it is greatly to be wished that the two remaining will be in a position to follow this example, and thereby remove an acknowledged long-stading grievance and nuisance to all those living in, and frequenting the important neighbourhood, of residents and visitors in the centre of the town through which the cows pass and repass twice daily.

In many cases the dairy is made a "larder," which should be, and by the "Cowsheds and Milkshops Order" *is* prohibited. The keeping of meat, cooked or uncooked, particularly the latter, with milk—and especially fresh milk from the cow—is fraught with danger, especially when an epidemic prevails, and a Sanitary Inspector cannot too forcibly impress the fact on purveyors of milk.

The Food and Drugs' Act.—I desire to emphasise all I have said in my previous reports on this subject, viz: this Act has not been called into operation in this district. It is difficult to know what is and what is not an *adulteration* of food. The number of articles of food necessaries of life of daily comsumption, including the well-known "staff of life"—which may be quoted as a special example—to which substitutes and drugs, most of them injurious, if not pernicious, are added, and the practice daily increasing, and the law practically powerless to prevent, is beyond belief. The number of these to procure pure and simple as nature has provided them for us, are daily getting less and less, and at present *may be counted on a few fingers.* The admixture of drugs and other substances, foreign to the food itself, should be strictly prohibited. A "New Food Adulteration Act" of a stringent character such as the principal foreign Powers have recently adopted, has become a pressing necessity in the interest of the public health, and especially so to the *infant* and *invalid*, and it is earnestly to be hoped that the serious attention of Parliament will be given in the framing of the new Act promised to be brought this Session to prevent such foreign admixtures.

The Factory and Workshop Act.—The provisions in connection with this Act, in the Sidmouth Urban District have been in all instances, satisfactorily carried out during the past year.

Slaughter Houses.—These, when inspected, have on the whole been found satisfactory. Many are in densely populated and contracted localities, and become at times dangerous, highly objectionable and impossible of improvement, and, I consider, call for some special steps, in the direction of a public Abbattoir at a convenient distance for the trade from the town.

Swine and Poultry.—In my last report I refer to them as follows: "The keeping of swine and poultry near dwellings is a nuisance—I am pleased to say, of the past—wiped out with the departed century," but I regret to say in the present report that cases of poultry keeping near dwellings have lately again been brought under my notice of an unsanitary character, and urgently call for official interferance.

The Ham and the Eastern end of the Esplanade—In my report of 1901, I referred to this desirable spot as being in a "very incomplete condition. I feel much pleasure in now referring to the first-named "The Ham," as apparently complete, and available for the use its esteemed donor originally intended, viz: a Recreation Ground which would enable the youth of the town to enjoy the sea air and exercise, so essential to their age and home environments, without inconvenience to the public, as at present, in consequence of the highways and bye ways being their only playground *near their homes.* In reference to its completeness, I must except the absence of any protection from accidents by drowning on its river border, where four or five narrow escapes have already occurred. The erection of cottages on its West side which is taking place, cannot but be a great improvement to the appearance of the spot, particularly if brought well forward to the present boundary wall, and the wall and withered shrubs removed.

After recent experience at the east end of the Esplanade, of what a single rough tide at this spot will do by excavation, unless "rough timbering," as suggested in my last Annual Report, or some other protection is provided for future deposit of earth at this spot, the safety of the Drill Hall and adjoining buildings must be seriously jeopardised. With regard to

a much needed improvement in front of the Lifeboat House, the Admiralty I have strong reason to think would contribute towards a Lifeboat "Slip," of a permanent character in front of the Lifeboat House, the cost of which, with the help of the Council and the Lifeboat Institution, would be trifling, and effect an important improvement by doing away with the long complained of unsightly deposit of insanitary rubbish at this spot, and at the same time would admit of extension of Esplanade to Dunning's Pier, or about 160 ft. further east of it if the present river wall was carried to a point suggested by me in a plan submitted to the Council in February, '96.

Lastly—Public Conveniences. Two or three such necessaries of a strictly public character are greatly needed in the town, and the absence of which is developing a very insanitary state of things, Supplying them need not involve any great expense.

In conclusion, as I have before felt pleasure in stating that the result of your Medical Officer's long experience as a Sanitary Officer, convinces him year by year of the recognition by the public of the importance of sanitary measures and an aroused energy towards their accomplishment. However laudable the intentions and endeavours of the Council may be to support and strengthen this feeling in matters affecting the public health and welfare of the district under its charge. it cannot be too strongly insisted on that the essence of all sanitary work is the "individual house," and the unit of sanitary success "individual co-operation," without home attention to the one and ready assistance of the other, the wisest intentions and best endeavours of the Council and its officials must be largely jeopardised.

I have the honour to remain, gentlemen,

Your obedient Servant,

Thos. H. S. PULLIN,

M.D., F.R.C.S., (Edin), M.R.C.S., L.S.A., Fellow of Royal Institute of Public Health, Member of Sanitary Institute of Great Britain, Member of the Societe Francaise de Hygiene.

January 27th, 1905.

APPENDIX.

Analysis of Water.

(Si lmouth Water Company's Supply).

by Professor Attfield and Dr. D. H. Attfield).

One gallon contains the following number of grains and decimal parts of a grain of the respective substances :—

Total suspended solid matter, dried at 250° F.	nil.
Total dissolved solid matter, dried at 250° F.	5.8
Ammoniacal matter, yielding ten per cent, of nitrogen (equal to ammonia per million 0.08)	0.046
Albuminoid organic matter yielding ten per cent of nitrogen (equal to ammonia per million 0.04)	0.023
Nitrites	absent
Nitrates, containing seventeen per cent. of nitrogen (equal to grains of nitrogen per gallon 0.115)	0.69
Chlorides, containing sixty per cent of cholorine (equal to grains of chlorine per gallon 1.6) ..	2.66
Hardness, reckoned as chalk grains or "degrees"	
Removed by ebulition	2.0
Unaffected by ebulition	1.7
Total Hardness	3.7
Lead or Copper	absent
Physical examination, clear, odourless, palatable ..	
Oxygen absorbod in three hours	0.01

TABLE IV.

Causes of, & Ages at, Death during the Year 1904

Causes of Death.	Deaths in or belonging to whole District at subjoined ages.							Total Deaths in Public Institutions in the District.
	All ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	
1	2	3	4	5	6	7	8	16
Small-pox								
Measles								
Scarlet fever								
Whooping-cough ...	2		2					
Diphtheria & membraneous croup	1			1				
Croup								
Fever { Typhus ...								
Fever { Enteric ...								
Fever { Other continued .								
Epidemic Influenza ...								
Cholera								
Plague								
Diarrhœa								
Enteritis								
Puerperal fever								
Erysipelas								
Other septic diseases ...								
Phthisis	6	1			2	3		
Other tubercular diseases								
Cancer, malignant diseases	4					4		
Bronchitis	4	1	1				2	
Pneumonia	3						3	
Pleurisy	4					1	3	
Other diseases of respiratory organs	2				1	1		
Alcoholism { ...								
Cirrhosis of liver { ...	2					2		
Venereal diseases ...	1					1		
Premature birth ...								
Diseases and accidents of parturition ...								
Heart diseases	6					2	4	
Accidents	1					1		1
Suicides								
All other causes ...	27	1	2	2	6	4	12	2
All causes. ...	63	3	5	3	9	19	24	3

TABLE I.

Vital Statistics of Whole during 1904 and previous Years.

YEAR.	Population estimated to middle of each year.	Births.		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents regist'd in Public Institutions in the District.	Deaths of residents regist'ed in Public Institutions beyond District.	Nett Deaths at all Ages belonging to the District.	
				Under 1 Year of Age.		At all Ages.						
		Number.	*Rate.	Number	Rate per 1000 Births regist'd	Number	*Rate				Number.	*Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1894	4000	70	17·5	8	96	72	18	4	8		64	16
1895	,,	88	22	5	55	73	18·1	1	13		60	15
1896	,,	72	18	3	43	54	16	4	12		53	13
1897	,,	68	17	4	47	47	11·7	1	8		39	9·75
1898	,,	74	18·5	6	78	58	13·5	1	11		47	11.7
1899	,,	61	15·5	4	73	64	16	0	16		48	13·10
1900	,,	68	17	3	48	68	15·25	3	12		49	12·25
1901	4201	69	16.4	4	57·97	74	17·61	2	12		52	14·76
1902	,,	89	21·11	7	78·65	82	19·62	3	3		79	17·41
1903	4350	72	16·5	4	55·5	63	14·9	4	0		63	14
Averages for Years 1894 - 1903.	4055·1	71·3	17·9	48	63·2	64·8	15·9	2·3	9·5		56·4	13·6
1904	4500	94	20·9	3	32	63	14	3	1	0	63	14

*Rates in Columns 4, 8 and 13 calculated per 1000 of estimated population.

At Census of 1901. Total population at all ages 4201. Number of inhabited houses, 1041. Average number of persons per house, 4·07. Acreage, 1600

TABLE III.

CASES OF INFECTIOUS DISEASES NOTIFIED DURING THE YEAR, 1904.

Notifiable Disease.	Cases notified in whole District.						
	At all Ages.	At ages—Years.					
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65	65 and upwards.
Small-pox ...							
Cholera... ...							
Diphtheria				1			
Membranous croup... ...							
Erysipelas ...							
Scarlet Fever ...							
Typhus fever ...							
Enteric fever ...							
Relapsing fever .							
Continued fever							
Puerperal fever .							
Plague							
Total ...				1			