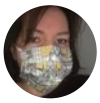
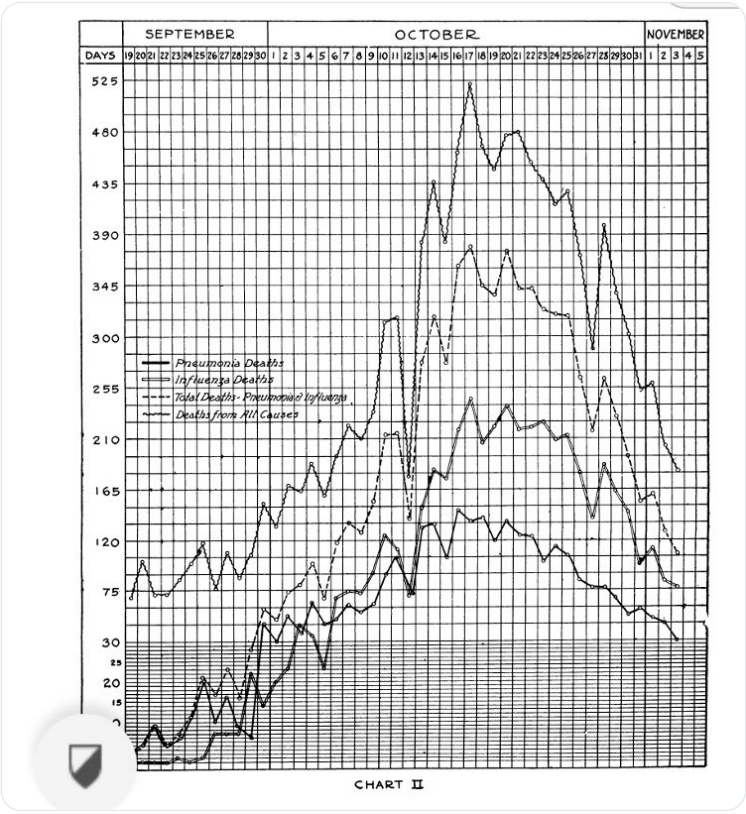


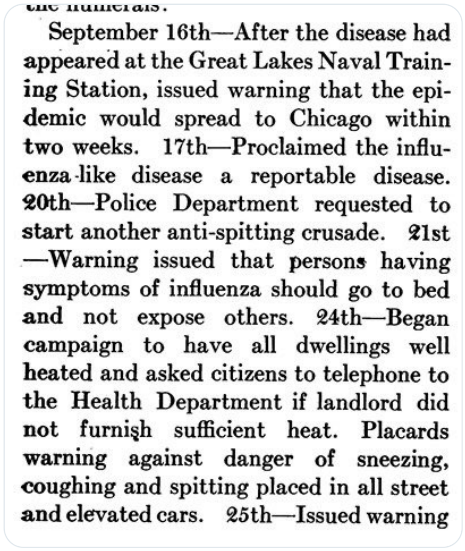
Orla Hegarty @Orla_Hegarty

20 Mar • 17 tweets • Orla_Hegarty/status/1373212120171610120

[Thread] Chicago didn't have a second wave of Spanish Flu.. so what did they do, & how did the city re-open when there was no vaccine? #Ventilation #COVID19 1/



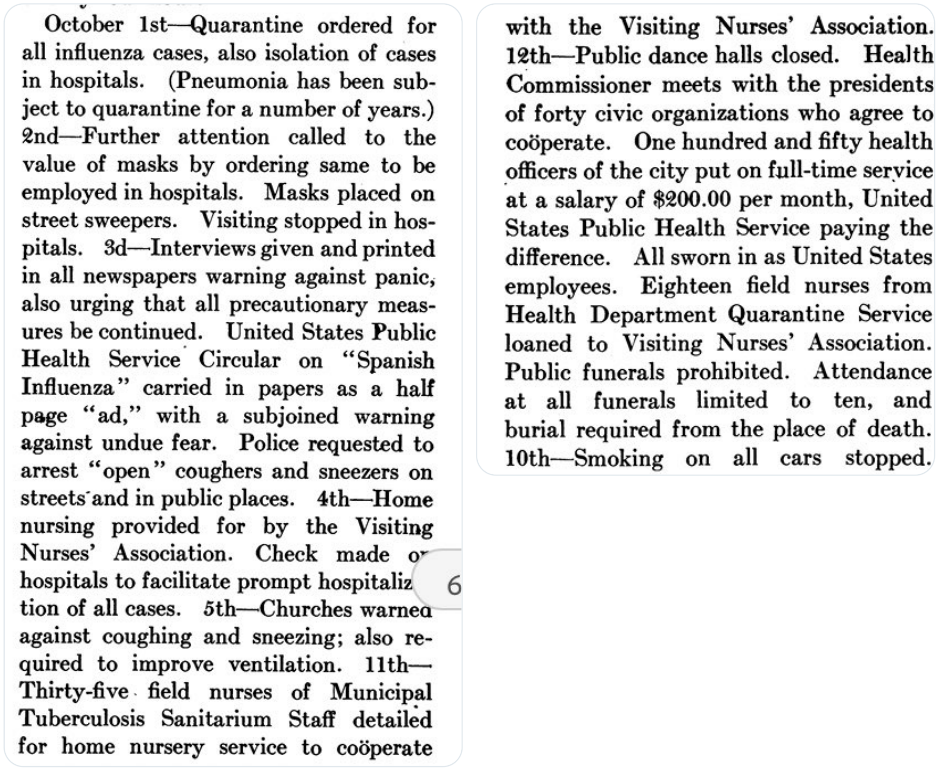
..here are the public health measures that Chicago took on the autumn of 2018 'open window ventilation in all school rooms.. pupils warmly dressed.. daily check on pupils & absentees in schools.. use of masks.. landlords required to heat homes.. ' 2/ documentcloud.adobe.com/link/track?uri...



the funerals.

September 16th—After the disease had appeared at the Great Lakes Naval Training Station, issued warning that the epidemic would spread to Chicago within two weeks. 17th—Proclaimed the influenza-like disease a reportable disease. 20th—Police Department requested to start another anti-spitting crusade. 21st—Warning issued that persons having symptoms of influenza should go to bed and not expose others. 24th—Began campaign to have all dwellings well heated and asked citizens to telephone to the Health Department if landlord did not furnish sufficient heat. Placards warning against danger of sneezing, coughing and spitting placed in all street and elevated cars. 25th—Issued warning in regard to pneumonia following influenza. 26th—The following rigid measures adopted to prevent the spread of the disease in the schools: (a) Open window ventilation of all schoolrooms. (b) Pupils warmly dressed. (c) Daily thorough inspection of all pupils. (d) Pupi's coughing or sneezing to be sent home at once. (e) Daily check on absentees in all schools. 27th—Pictures in daily papers demonstrating the use of masks. Landlords refusing to supply heat sued. 28th—Health Commissioner appointed on a committee appointed by the Medical Section of the State Council of Defense to mobilize all forces to fight the outbreak in the city and state. 30th—All street and elevated cars required to be renovated and disinfected at least once in twenty-four hours.

..'isolation & quarantine.. home nursing provided (see my thread on home nursing).. churches required to improve ventilation.. 150 city health officers on full time service' 3/



October 1st—Quarantine ordered for all influenza cases, also isolation of cases in hospitals. (Pneumonia has been subject to quarantine for a number of years.) 2nd—Further attention called to the value of masks by ordering same to be employed in hospitals. Masks placed on street sweepers. Visiting stopped in hospitals. 3d—Interviews given and printed in all newspapers warning against panic, also urging that all precautionary measures be continued. United States Public Health Service Circular on "Spanish Influenza" carried in papers as a half page "ad," with a subjoined warning against undue fear. Police requested to arrest "open" coughers and sneezers on streets and in public places. 4th—Home nursing provided for by the Visiting Nurses' Association. Check made of hospitals to facilitate prompt hospitalization of all cases. 5th—Churches warned against coughing and sneezing; also required to improve ventilation. 11th—Thirty-five field nurses of Municipal Tuberculosis Sanitarium Staff detailed for home nursery service to coöperate with the Visiting Nurses' Association. 12th—Public dance halls closed. Health Commissioner meets with the presidents of forty civic organizations who agree to coöperate. One hundred and fifty health officers of the city put on full-time service at a salary of $200.00 per month, United States Public Health Service paying the difference. All sworn in as United States employees. Eighteen field nurses from Health Department Quarantine Service loaned to Visiting Nurses' Association. Public funerals prohibited. Attendance at all funerals limited to ten, and burial required from the place of death. 10th—Smoking on all cars stopped.

..'closure of dance halls, theatres, restaurants in order to keep schools open .. ventilation of public transport.. public health doctors & nurses' 4/

14th—Conference to facilitate hauling by ambulances. 15th—Theaters, skating rinks, moving picture shows, night schools and lodge halls closed. 16th—Sixteen Municipal Tuberculosis Sanitarium dispensary physicians detailed to field duty for care and treatment of families afflicted with the disease. 17th—Arrangements completed for federalizing health officers of the city; the same also to give treatment to the needy and first-aid treatment to those unable to procure a physician. The manner of obtaining this assistance announced in the public press. Street and elevated cars required to keep doors open, also windows as weather permits. Employees in down-town district ordered to and from work at various hours so as to stagger load on cars. The Influenza Commission recommends general immunization by the use of the Dr. E. C. Rosenow vaccine and appointed a commission, consisting of the professors of bacteriology and pathology in the local universities to manufacture and distribute such vaccine. Manufacture of prophylactic vaccine under supervision of the aforesaid commission begun in the city laboratory. 18th—All public gatherings not essential to the war, such as banquets, conventions, lectures, social affairs, athletic contests of a public nature stopped. Music, cabarets and other entertainments stopped in restaurants and cafés. Crowding prohibited in poolrooms, saloons, etc. Assistance of the school board enlisted to help health officers in carrying out measures which have been employed since the outbreak of the epidemic to guard the health of school children. These measures have been carried out in lieu of closing the schools. 19th—Hospitals canvassed with a view of getting more space for influenza cases. Report received from a representative of the department sent East to study vaccines used there. 20th—Conference with superintendents of all hospitals to arrange for additional space for influenza cases. Ordered that no surgery, except emergency surgery, should be done until further notice. 21st—Further efforts made to cope with shortage of nurses. Request made that physicians send all women over forty, willing to serve as housekeepers in afflicted homes, to the Health Department for registration and reference to the Visiting

& then by late October/early November (just 6 weeks into the outbreak) theatres were allowed to reopen, social functions & public meetings resumed 5/

of all hospitals and laboratories. Urged that they make preparations at once to collect and administer immune human serum. 24th—Check up on street cars to see if all available cars are used so that crowding be reduced to minimum. 25th—During cold spell the public warned to wear heavy clothing, also warned as to the dangers of cold and wet feet. 29th—Ban lifted on music and usual entertainment in restaurants. 30th—Theaters allowed to reopen on north side of the city, the next day in the middle and business section, and later on the south side portions of the city. Thorough renovation of all theaters required as a condition for a permit to reopen. Two-minute health talks given at each performance, and watch kept on coughing, sneezing and spitting. Ban also lifted on other pub'ic meetings in theaters and assembly halls on the same date as for theaters, but all theaters and meetings allowed to reopen required to close at 10 p. m.

November 4th—Ban lifted on social functions, entertainments and athletic contests. Public dance halls, skating rinks and lodge halls allowed to reopen after thorough renovation and inspection, and approval by the Department.

So what was happening to make this re-opening possible?
The Chicago Bureau of Sanitation (1911-18 report) 6/

Ventilation Standards.

The modern science of ventilation, then, deals with and recognizes these various factors under the three groups just described. The ventilation division of the sanitary bureau has developed methods and instruments for determining and accurately measuring these factors, but there has not been a satisfactory standard for comparison of the results obtained, until recently.

In making tests of air conditions in any given space it is essential above all things that a proper standard of measurement or comparison be employed in order that the results be of real value. If we wish to determine the purity of a glass of water, the accuracy of a watch, or the speed of a locomotive, we must have something with which to measure it, some standard of excellence for comparison, that the mind may grasp the true significance of the test. It is due to the absence of such a standard in ventilation work in the past that much diversity of opinion has prevailed. It is not unusual to hear well informed individuals condemn mechanical ventilation per se and insist upon natural methods when the latter are totally inadequate to maintain the air conditions desired. On the other hand, not infrequently mechanical equipments are specified and installed where they are unnecessary and undesirable; where satisfactory conditions could be maintained by the use of windows or other natural methods at a much lower initial cost and a more economical maintenance. There is also a wide diversity of opinion even among so-called experts regarding the ventilation of a given room at a given time. This state of affairs is due to the fact previously mentioned, that there has been in the past no clear realization of what constituted proper air conditions and no satisfactory standard with which various conditions or tests could be compared.

Effect of Ventilation on Health.

The importance of ventilation in its bearing on health and comfort has always been recognized. Its relative importance, however, has changed from time to time in conformity with the changing beliefs and the discoveries of science relating thereto. Practically every textbook dealing with the subject of ventilation begins with a description of an incident that occurred on a night in June, 1756, when 123 British soldiers lost their lives in the "Black Hole" of Calcutta. It was believed at this time and for many years after that the loss of life in this instance was due to poisonous substances exhaled by the men confined in this dungeon, and ventilation practice following that time was based upon this theory.

Later scientific investigations, however, tended to disprove this and we have at the present time no sound basis for believing that the air exhaled by normal individuals contains substances seriously prejudicial to health. The work of Flügge, Leonard Hill and others previously referred to, demonstrated that the bad effect felt in a poorly ventilated room could be accounted for by faulty relations between temperature, humidity and air motion, and their conclusions were that no injurious organic impurities exist in respired air.

Repeated bacteriologic tests at various times and by numerous observers have failed, in the vast majority of cases, to reveal the presence of pathogenic organisms in the air. The tendency, therefore, of all this work has been to minimize the importance of ventilation in its bearing on health, especially if considered not from the broad standpoint of experience but from actual specific knowledge. If, however, the question is viewed from the standpoint of historical development, and all the evidence carefully weighed, the conclusion must necessarily be reached that, taken as a whole, the application of the principles of ventilation has an important bearing on the public health.

..who understood airborne disease & spread in buildings

'the most important factor in prevention is the air that we breath'

'buildings merit earnest study & attention in a program of real & effective work in preventing the spread of disease' 7/

The significance of aerial infection in the transmission of pneumonia and other respiratory diseases has been given considerable attention. The prophylaxis of these diseases has in recent years received the attention their great importance demands.

Passing over the less important modes of infection, etc., it may safely be said that the consensus of opinion among the medical profession at the present time is that probably more than 90 per cent. of the cases of pulmonary tuberculosis are conveyed by the dust or infected air that we breathe or by the food and drink taken into the body. Osler in his "Modern Medicine" is undecided as to which of these two methods of infection is the more important in infancy and childhood, but states that there can be no question but that the vast majority of cases after the fifteenth year are air borne. As the greatest number of cases occur between the fifteenth and fortieth years of life it needs no further argument to convince one that the air is the most important avenue of infection and to it must be ascribed by far the greatest number of cases. Furthermore, the prevalent belief regarding infection through the alimentary tract has been considerably modified of late by the work of Dunham and Miller in their study of the mechanics of respiration.

It is evident, therefore, that the most important factor in the prevention of tuberculosis is the air that we breathe. As the greatest number of cases occur in early youth and adult life it is important that the best possible air conditions be maintained during this period of existence. A little thought convinces one that the vast majority of cases are to be found during the years preceding and following adolescence and up to the age of twenty-five or thirty in the factories and workshops or in the schools. These buildings, therefore, merit earnest study and attention in a program of real and effective work in preventing the spread of this disease.

the had boots on the ground, 'one man for every 100,000 of population' & a regime of regulating, inspecting, investigating & enforcing ventilation standards in buildings for public health 8/

ADMINISTRATIVE AND INSPECTION METHODS.

Organization of Ventilation Bureau.

An organization for the proper enforcement of a compulsory ventilation law should have, first, a sufficient force to do the necessary work, and, second, a properly balanced organization to carry it on efficiently. The work naturally falls into five divisions:

1. New Buildings: Regulating the design and equipment in same.
2. Existing Buildings: Enforcing the necessary changes to insure proper air conditions.
3. Public Conveyances: Enforcing ordinances with respect to street cars, etc.
4. Complaints: Answering complaints and investigating conditions in all kinds of buildings or conveyances covered by the ordinances.
5. Research Work: Particular attention should be paid to studying, classifying and correlating the observations and tests made in the routine work and also to carrying on investigations that are essential to the progress of the science.

For carrying on the minimum amount of work required by this outline the department or bureau entrusted with it must have an organization of approximately one man for every 100,000 population. Rather than to carry out this figure in fractions it is perhaps better to give the organization as it should be in the city of Chicago:

Bureau chief	1
Assistant chief	1
Engineers	5
Inspectors	16
Draftsmen	2
Stenographer	1
Clerk	1

..they had very detailed ventilation standards & buildings were inspected.. including measuring air temperature, humidity, velocity, dust particles &.. CO2 (carbon dioxide) monitoring was used to catch inadequate ventilation 9/

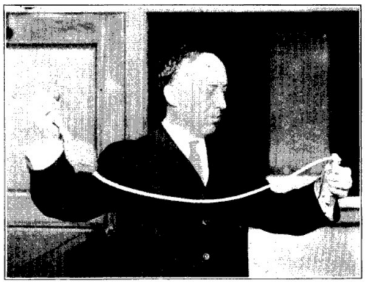


FIG. CXVI.—Taking an Air Sample.

It must be admitted, however, that the experiment is not entirely satisfactory and that the words themselves describing the various concentrations have come to be the true standard rather than the recollection of odors they represent. Therefore, at the present time 100 per cent. freedom from odors is rated as perfect; 95 per cent. as very faint; 90 per cent. as faint; 85 per cent. as noticeable; 80 per cent. as distinct; 75 per cent. as decided, and 70 per cent. as strong.

CARBON DIOXID: Samples of air are taken and analyzed for carbon dioxid for the purpose of determining the quantity of air supplied to a room and for determining its distribution. The apparatus used for this work consists of a clean rubber stoppered bottle of 125 cubic centimeter capacity and a Paquelin cautery bulb with about 24 inches of tubing.

The apparatus is held at arm's length from the body, care being exercised that the expired air from the observer's mouth does not contaminate the sample. Consideration must also be given to the proximity of windows, air supply registers or other conditions that would prevent the operator from obtaining an average air sample of the room in question. In taking the sample the cork is removed and the tube inserted to the bottom of the bottle. The tube is closed by compressing it between the thumb and the neck of the bottle and the bulb compressed until the reservoir is distended. The thumb pressure is then released and air in the reservoir allowed to rush into the bottle,

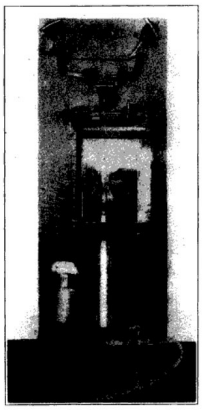


FIG. CXVII.—Peterson-Palmquist Apparatus for Determining CO_2 in Air Samples.

displacing the residual air. This operation is repeated three times in order to be certain that all of the air originally in the bottle and apparatus has been replaced by the air to be sampled. The tube is then removed and the stopper firmly inserted and the sample taken to the laboratory for analysis. (See Figure CXVI.)

& Chicago had a head start on other cities, having been the first to regulate in 1911, & then having targeted improvements every year in picture-houses, street-cars, restaurants, garages etc

.. then in September 1918 the Spanish Flu epidemic arrived /10

Summary of Activities.

Chicago was the first municipality to enact and enforce a compulsory ventilation ordinance applying to public buildings and conveyances and to factories and workshops. This ordinance, which is Section 680 of the Municipal Code of 1911, was passed September 10, 1910, and became effective January 15, 1911. The ordinance makes it compulsory for theaters, schools, churches, workshops, factories, department stores and all places used for the purpose of public assemblies, to provide a specific amount of air per occupant, and to maintain

The epidemic of influenza placed a heavy burden on the division. During its height all theaters, lodge, dance and assembly halls were closed and before they were allowed to reopen all theaters were inspected. A permit allowing reopening was issued only for places which were found to be in good sanitary condition. The Department required all theaters to be thoroughly cleaned, walls calcimined and the mechanical equipment and plumbing appliances overhauled and all defects corrected, and while the work involved in this campaign was enormous and required the assistance of practically the entire field force of the bureau, the results obtained outweighed the difficulties encountered. The extent of the renovation, painting and general improvement in these places of public assembly, is difficult to appreciate unless the places themselves are visited by the observer and investigations made not only of the auditorium, but also of the basement, dressing rooms and other more or less inaccessible portions. This same is also true of dance, lodge and assembly halls, the latter aggregating somewhere near 1,000 which were subjected to the same requirements. The number of these places of public assembly outside of theaters was so great that all could not possibly be inspected before they were allowed to reopen, but a permit was required in each instance. From the permit the location of the premises and the parties responsible for its proper maintenance were obtained and an inspection and enforcement of sanitary requirements made as soon as possible after the opening date. Never in the history of Chicago have public meeting places undergone so thorough and complete a sanitary renovation as they received during this campaign.

Chicago had 1,700 street-cars, so ventilation on public transport received a lot of attention.. there were concerns about the cost of improving poor ventilation /11

In taking up the study of car ventilation in the fall of 1912, with particular reference to cars in service at that time, it was found that the railway companies were working under a misapprehension as to the meaning of the ordinance. The ordinance required that 350 cubic feet of air must be supplied per occupant through intakes provided for that purpose. It also provided that the maximum amount of carbon dioxid should be 10 parts in each 10,000 parts of air. It is evident that if a 10 part CO_2 content is maintained 1,000 cubic feet of air per occupant must be supplied instead of 350 as was the practice at this time, as there is a perfectly evident mathematical relation between the amount of air introduced and the CO_2 content of a car. (See the chart in Figure CXIX.)

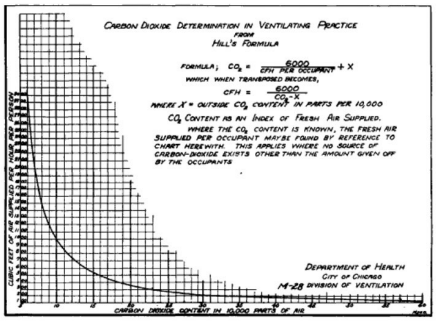


Fig. CXIX.—Carbon Dioxide Chart.

load. The result was that the tests of the latest cars equipped with the Cooke system showed the poorest results of any cars in service. (See chart in Figure CXX.)

In these new cars equipped with the Cooke system the intake was redesigned and the opening was placed in the side of the car instead of in the floor, as had been the practice heretofore. The dust nuisance from the new location of the intake was to a certain extent reduced,

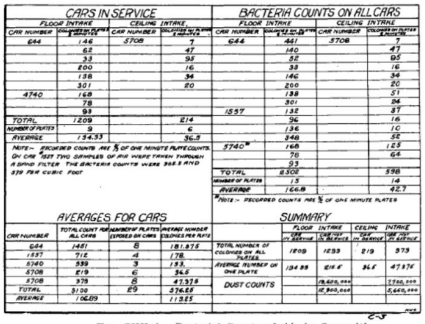


Fig. CXX-A.—Bacterial Counts of Air in Cars with Ceiling and Floor Intakes.

although the equipment is still objectionable for this reason. Tests of bacterial counts of cars equipped with floor intakes were compared with those where the intake is at the roof line and recorded on the chart shown in Figure CXX-A. Drawings of the latest Cooke equipment are shown in Figures CXXI and CXXII.

At a meeting of the board of supervising engineers on June 23, 1913, attended by the ventilation inspector in charge as a representative of the Chicago Health Department, at the request of their chairman, this matter was brought up for discussion. The representatives of the board contended that the ordinance as interpreted was unduly drastic and argued that to comply would require the installation of additional heaters and a mechanical equipment in every car. They

but The Chicago Bureau of Sanitation prevailed.. 12/

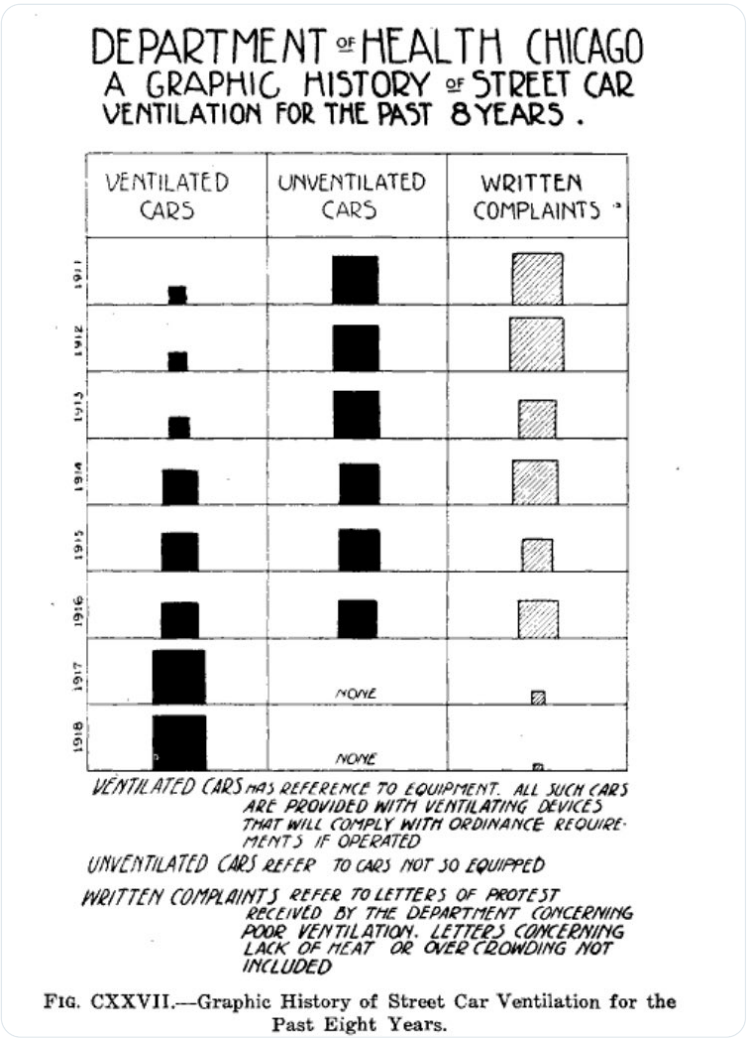
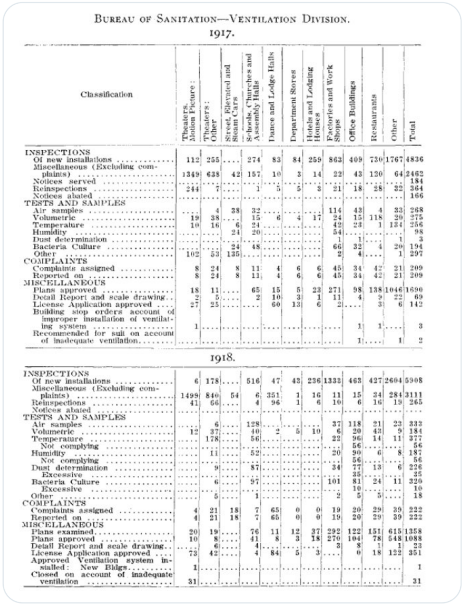


FIG. CXXVII.—Graphic History of Street Car Ventilation for the Past Eight Years.

so the Spanish Flu epidemic in Chicago pandemic was fought on the ground with building inspectors.. who measured, targeted & eliminated actual public health risks in actual buildings

'while the work involved was enormous, the results obtained outweighed the difficulties' /13



BUREAU OF SANITATION—VENTILATION DIVISION.

1917.

Classification	Theaters, Motion Picture	Theaters, Other	Street, Elevated and Steam Cars	Schools, Churches and Assembly Halls	Dance and Lodge Halls	Department Stores	Hotels and Lodging Houses	Factories and Work Shops	Office Buildings	Restaurants	Other	Total
INSPECTIONS												
Of new installations	112	255	....	274	83	84	259	862	469	730	1767	4836
Miscellaneous (Excluding complaints)	1349	628	42	157	10	3	14	22	43	130	64	2462
Notices served	....	....	....	....	....	....	....	....	....	....	....	184
Reinspections	244	....	....	....	5	3	8	21	18	58	22	364
Notices abated	....	....	....	....	....	....	....	....	....	....	....	166
TESTS AND SAMPLES												
Air samples	....	4	38	32	....	....	....	114	43	4	33	268
Volumetric	19	38	....	15	6	4	17	24	15	118	29	275
Temperature	10	16	6	24	....	....	....	42	23	1	124	256
Humidity	....	....	24	20	....	....	....	54	....	....	....	98
Dust determination	....	....	....	....	....	....	....	....	1	....	1	2
Bacteria Culture	....	....	24	48	....	....	....	66	32	4	20	194
Other	102	33	135	....	....	....	....	2	4	....	1	297
COMPLAINTS												
Complaints assigned	8	24	8	11	4	6	6	45	34	42	21	209
Reported on	8	24	8	11	4	6	6	45	34	42	21	209
MISCELLANEOUS												
Plans approved	18	11	....	65	15	5	23	271	98	138	1046	1630
Detail Report and scale drawing	2	5	....	2	10	3	1	11	4	9	22	69
License Application approved	27	25	....	....	60	13	6	2	....	3	6	142
Building stop orders account of improper installation of ventilating system	1	....	....	....	....	....	....	....	1	1	....	3
Recommended for suit on account of inadequate ventilation	....	....	....	....	....	....	....	....	1	....	1	2

1918.

INSPECTIONS												
Of new installations	6	178	....	516	47	43	236	1331	463	427	2604	5988
Miscellaneous (Excluding complaints)	1499	840	54	6	351	1	16	11	15	24	281	3111
Reinspections	41	66	....	4	96	1	6	10	6	16	19	265
Notices abated	....	....	....	....	....	....	....	....	....	....	....	....
TESTS AND SAMPLES												
Air samples	....	6	....	128	....	....	....	37	118	51	23	333
Volumetric	12	37	....	40	2	5	19	6	20	43	9	181
Temperature	....	178	....	56	....	....	....	23	96	14	11	377
Not complying	....	....	....	....	....	....	....	....	56	....	....	56
Humidity	....	11	....	52	....	....	....	20	90	6	8	187
Not complying	....	....	....	....	....	....	....	....	56	....	....	56
Dust determination	....	9	....	83	....	....	....	34	77	13	6	226
Excessive	....	....	....	....	....	....	....	....	25	....	....	25
Bacteria Culture	....	6	....	97	....	....	....	101	81	24	11	320
Excessive	....	....	....	....	....	....	....	....	10	....	....	10
Other	....	5	....	1	....	....	....	2	5	5	....	18
COMPLAINTS												
Complaints assigned	4	21	18	7	65	0	0	19	20	29	39	222
Reported on	4	21	18	7	65	0	0	19	20	29	39	222
MISCELLANEOUS												
Plans examined	20	19	....	76	11	12	37	292	122	151	615	1358
Plans approved	10	8	....	41	8	3	18	270	104	78	548	1088
Detail Report and scale drawing	....	6	....	4	....	....	....	3	8	1	1	23
License Application approved	73	42	....	4	84	5	3	....	0	18	122	351
Approved Ventilation system installed: New Bldgs	1	....	....	....	....	....	....	....	....	....	....	1
Closed on account of inadequate ventilation	31	....	....	....	....	....	....	....	....	....	....	31

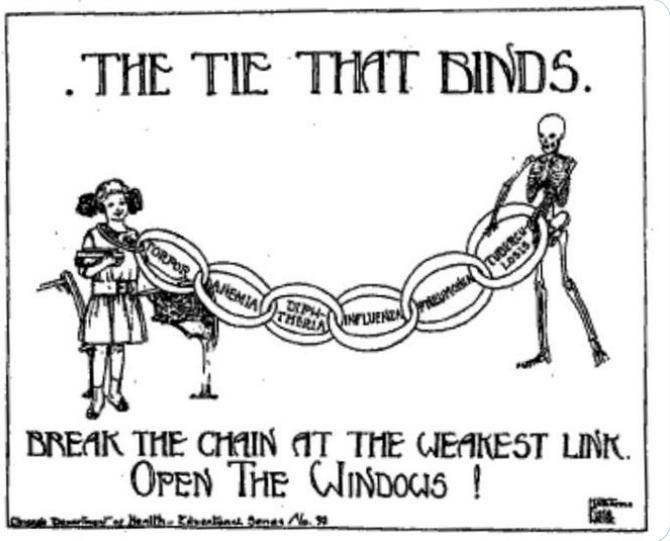
The epidemic of influenza placed a heavy burden on the division. During its height all theaters, lodge, dance and assembly halls were closed and before they were allowed to reopen all theaters were inspected. A permit allowing reopening was issued only for places which were found to be in good sanitary condition. The Department required all theaters to be thoroughly cleaned, walls calcimined and the mechanical equipment and plumbing appliances overhauled and all defects corrected, and while the work involved in this campaign was enormous and required the assistance of practically the entire field force of the bureau, the results obtained outweighed the difficulties encountered. The extent of the renovation, painting and general improvement in these places of public assembly, is difficult to appreciate unless the places themselves are visited by the observer and investigations made not only of the auditorium, but also of the basement, dressing rooms and other more or less inaccessible portions. This same is also true of dance, lodge and assembly halls, the latter aggregating somewhere near 1,000 which were subjected to the same requirements. The number of these places of public assembly outside of theaters was so great that all could not possibly be inspected before they were allowed to reopen, but a permit was required in each instance. From the permit the location of the premises and the parties responsible for its proper maintenance were obtained and an inspection and enforcement of sanitary requirements made as soon as possible after the opening date. Never in the history of Chicago have public meeting places undergone so thorough and complete a sanitary renovation as they received during this campaign.

In parallel, Chicago rolled out home nursing to care for patients ~&~ to prevent disease spread in the community & within homes, using #ventilation to prevent disease spread /14

Orla Hegarty
@Orla_Hegarty

[Thread] #COVID19
Break the Chain at the
Weakest Link
~Open the Windows~

What can we learn about ventilation & disease control from 1920 nursing manual? 1/



'Nothing was done to interfere with the morale of the community' /15

PREVENTIVE MEASURES EMPLOYED TO CONTROL THE EPIDEMIC.

In 1910 the Department of Health of the City of Chicago made pneumonia a reportable disease. In 1916 the department made it a placardable disease, thus definitely placing it in a category with scarlet fever, diphtheria and other contagious diseases.

When it became evident that there would be an outbreak of influenza and pneumonia in the City of Chicago the Department of Health adopted every known plan to limit the spread of the disease. These will be described in detail later in this article. In a great city like Chicago, in which one-fortieth of the population of the entire nation resides, and in war time, when it is absolutely essential to keep the arteries of business open, the plan of closing business and stopping commerce could not be considered for one moment.

The plan adopted was to allow all essential business to continue and prohibit only the unnecessary public assemblages. Following out this policy, places of amusement were closed. This included theaters of all kinds, cabarets, dance halls, athletic meets, and everything of this kind. People were advised to go home and to get nine hours sleep, on the theory that rest was the best preventive that could be had. In fact, by cutting out all of these night assemblages there was no place for the people to go and they had to remain home.

This closing order went into effect on the day when the epidemic was taking its highest death toll. Whether it had any effect on the death rate in Chicago is purely speculative. It surely did have the effect of getting information regarding the disease to every individual in the City of Chicago and it impressed upon the public that care was necessary.

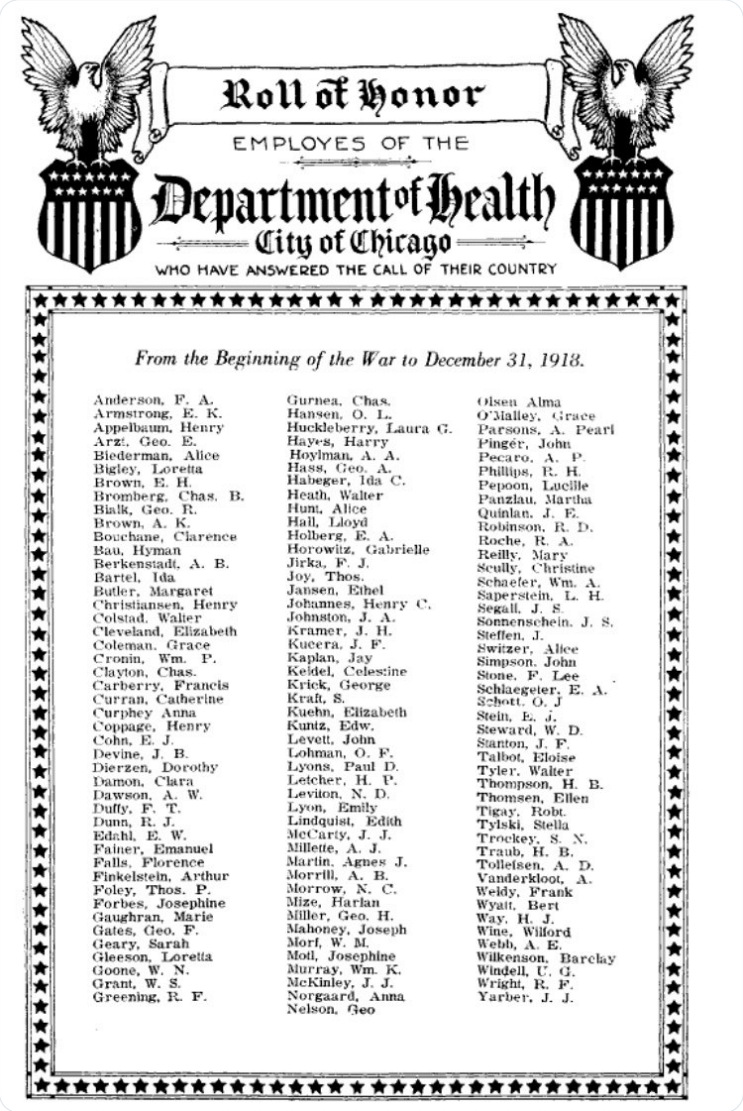
The commissioner of health during the entire epidemic did everything he could to get correct information to the public without at the same time doing it in a manner to create a panic. A large advertisement was placed in the newspapers of the city and pamphlets were printed and distributed giving information in regard to the disease and measures necessary to prevent the same. These together with similar articles inserted each day in the daily papers always carried a message of assurance.

Places of business, churches and schools were not closed. Nothing was done to interfere with the morale of the community.

INFLUENZA DONT'S

Don't live in the dark.
Don't shut the sunshine out of your home.
Don't exclude the fresh air.
Don't fail to keep clean.
Don't go into crowded places.
Don't associate with people who sneeze and cough in your presence.
Don't use common towels.
Don't fail to practice what you preach.
Don't overtax your physical powers. Cut out evening entertainments. Be in bed by ten o'clock. Get nine hours sleep.
Don't fail to sleep with every window in your bedroom open.
Don't fail to call your doctor for yourself or any member of your family at the first sign of illness. Better be safe than sorry.
Don't allow your home to become damp, chilly or uncomfortable. See to it that it is kept at a temperature of at least 68 to 70 degrees all the time.
Don't fail, if possible, to walk to your work in the morning and to your home at night. The open air exercise will be of decided benefit.

[source: Report and Handbook of the Department of Health of the City of Chicago for Years 1911 to 1918 inclusive, Influenza Encyclopaedia]



Roll of Honor

EMPLOYES OF THE

Department of Health

City of Chicago

WHO HAVE ANSWERED THE CALL OF THEIR COUNTRY

From the Beginning of the War to December 31, 1918.

Anderson, F. A.
Armstrong, E. K.
Appelbaum, Henry
Arzt, Geo. E.
Biederman, Alice
Bigley, Loretta
Brown, E. H.
Bromberg, Chas. B.
Bialk, Geo. R.
Brown, A. K.
Bouchane, Clarence
Bau, Hyman
Berkenstadt, A. B.
Bartel, Ida
Butler, Margaret
Christiansen, Henry
Colstad, Walter
Cleveland, Elizabeth
Coleman, Grace
Cronin, Wm. P.
Clayton, Chas.
Carberry, Francis
Curran, Catherine
Curphey Anna
Coppage, Henry
Cohn, E. J.
Devine, J. B.
Dierzen, Dorothy
Damon, Clara
Dawson, A. W.
Duffy, F. T.
Dunn, R. J.
Edahl, E. W.
Fainer, Emanuel
Falls, Florence
Finkelstein, Arthur
Foley, Thos. P.
Forbes, Josephine
Gaughran, Marie
Gates, Geo. F.
Geary, Sarah
Gleeson, Loretta
Goone, W. N.
Grant, W. S.
Greening, R. F.
Gurnea, Chas.
Hansen, O. L.
Huckleberry, Laura G.
Hayes, Harry
Hoylman, A. A.
Hass, Geo. A.
Habeger, Ida C.
Heath, Walter
Hunt, Alice
Hall, Lloyd
Holberg, E. A.
Horowitz, Gabrielle
Jirka, F. J.
Joy, Thos.
Jansen, Ethel
Johannes, Henry C.
Johnston, J. A.
Kramer, J. H.
Kucera, J. F.
Kaplan, Jay
Keidel, Celestine
Krick, George
Kraft, S.
Kuehn, Elizabeth
Kuntz, Edw.
Levett, John
Lohman, O. F.
Lyons, Paul D.
Letcher, H. P.
Leviton, N. D.
Lyon, Emily
Lindquist, Edith
McCarty, J. J.
Millette, A. J.
Martin, Agnes J.
Morrill, A. B.
Morrow, N. C.
Mize, Harlan
Miller, Geo. H.
Mahoney, Joseph
Morf, W. M.
Moll, Josephine
Murray, Wm. K.
McKinley, J. J.
Norgaard, Anna
Nelson, Geo
Olsen Alma
O'Malley, Grace
Parsons, A. Pearl
Pingér, John
Pecaro, A. P.
Phillips, R. H.
Pepoon, Lucille
Panzlau, Martha
Quinlan, J. E.
Robinson, R. D.
Roche, R. A.
Reilly, Mary
Scully, Christine
Schaefer, Wm. A.
Saperstein, L. H.
Segall, J. S.
Sonnenschein, J. S.
Steffen, J.
Switzer, Alice
Simpson, John
Stone, F. Lee
Schlaegeler, E. A.
Schott, O. J
Stein, E. J.
Steward, W. D.
Stanton, J. F.
Talbot, Eloise
Tyler, Walter
Thompson, H. B.
Thomsen, Ellen
Tigay, Robt.
Tylski, Stella
Trockey, S. N.
Traub, H. B.
Tollefsen, A. D.
Vanderkloot, A.
Weidy, Frank
Wyatt, Bert
Way, H. J.
Wine, Wilford
Webb, A. E.
Wilkenson, Barclay
Windell, U. G.
Wright, R. F.
Yarber, J. J.

*typo 1918, not 2018

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