IX.

Summary of Results of an inquiry at Wigan, made under the supervision of

J. R. Hutchinson, M.D.

Population, 80,865. Deaths from Influenza, June 18—March 19 (inclusive).

Total number of households investigated — 204.

" inhabitants of these houses = 1,027 $\begin{cases} 501 \text{ males.} \\ 526 \text{ females.} \end{cases}$

" " " households invaded = 108.

Streets Included.—Northumberland, Great George, Lime, Brook, Golborne, Duke, Albert, Seed and Piatt Lane. These streets afine situated in different parts of the borough and were selected as typical.

Age and Sex Analysis of the Population, Cases, &c.

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· · · · · · · · · · · · · · · · · · ·	Under 1 year.	1-2.	2-5.	5-10.	10-15.	15-20.	20–25.	25-35.	35-45.	45-55.	55-65.	65-75.	75 and over.	Totals.
Age and sex consti- tution of popula- tion investigated	14 15	8 12	3 3 36	70 66	70 67	50 49	33 48	79 94	67	67 65	25 23	9	1	501 males. 526 females.
Age and sex incidence of persons attacked.	1	3	13	17 16	8 14	5 8	5 13	23 39	17 15	7 15	6 3	0 3	1 0	105 males. 138 females.
Age and sex incidence of death.	1	1	1 2	1 2	-	1	1	2 2	1	_	1	1	-	4 males. 13 females.
Age and sex of cases in summer wave.	1	1	1	3 2	1 3	1 2	2	8	1	1 2	_	1	-	20 males. 25 females.
Age and sex of cases in autumn wave.	-	- 2	6	5 7	6	3	3	10	5 6	3	3 -	- 1	1 -	36 males. 46 females.
Age and sex of (cases in winter (1	1 -	6 4	9	1 8	5 4	3 6	6 17	10 8	6 10	3	1	-	51 males. 69 females.
Total attacks all three waves.	3	4	21	33	23	15	18	63	32	22	9	3	1	247

Two persons had two attacks in both autumn and winter, and one in summer, autumn and winter.

Occupational Incidence.—Of the 105 males, 37 were coal miners (hewers, drawers, pit boys); the remainder included ironworkers, firemen, railway workers, bottle-makers, spinners, weavers, candle-makers, horsemen, skepmakers, works managers, in and outdoor labourers and school children. The incidence on coal miners is not excessive having regard to the preponderance of this class of worker.

Of the 138 females, 63 or nearly 50 per cent, were engaged in housework; the remainder were spinners, weavers, tailoresses, railway carriage cleaners and school children.

In 105 invaded households the housewife or the person presumably occupied as such escaped infection in 46 or practically 44 per cent, of cases.

In 35 (ex 105) instances in which the housewife amongst others was infected.

She was the 1st (or one of the first) cases in 17 instances.

, , 2nd case in 15 instances.

3rd " " 1 " » 4th " " 1 " 7th " " 1

In 24 instances, the housewife herself was the only case.

Taking only households with multiple cases in one or other wave, the liability of the nurse to infection as compared with that of other contacts was as $39 \cdot 2$ per cent, is to 47 per cent.

The number of persons attached in Summer was 45.—There were no deaths. The number who escaped was 982. Of the 45, one was again attacked in autumn. Of the 982, 81 were attacked in autumn and six died.

The number of persons attached in winter :-

- (i) Of the 981 who escaped in summer and autumn was 117—11 died.
- (ii) Of the 75 survivors of those who escaped in summer, but were attacked in autumn, was two.
- (iii) Of those who escaped in autumn, but were attacked in summer, was—nil.
- (iv) Of those who were attacked in both summer and autumn waves, was—one.

There is no evidence to show whether there is any correlation between degree of immunity and severity of attack.

The incidence on houses with one or more persons per room as compared with those with less than one person per room was as $1 \cdot 5$ is to one.

No. of	houses	invaded	in	sum	mer	-	-	-	-	-	15
,,	,,	,,	,,	autu	ımn	-	-	-	-	-	29
,,	"	,,	,,	win		-	-	-	-	•	4 8
,,	,,	escape		ı all	three	e war	ves	•	-	-	96
,,	,,	invade		,,	,,	2,		•	-	-	1
97	,,	,,	in	sun	ımer	and	autumr		-	-	3
•,	,,	,,		,,	,,	_	winter	-	•	-	3
"	,,	,,	in	aut	umn	and	\mathbf{winter}	-	-	-	9
No of hou	ses wit	h one ca	se		-	-	-	-	-	-	4 8
,,	,,	"tw	o ca	ases	-	-	-	-	-	-	26
,,	,,	"thr	ee	,,	•	-	-	•	-	-	12
,,	,,	" fou	r	,,	-	-	-	-	-	-	11.
,,	,,	" five	!	,,	-	-	-	-	•	-	8
,,	,,	", six		,,	-	-	-	-	-	-	0
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In seven instances every member of the family was infected in the one outbreak; the number of persons in the families were 2, 3, 4, 5, 5, 7 and 7, respectively.

The incubation period as gathered from these reports is from one to two days, occasionally three, but seldom more.

There is no information on the question of the duration of infectivity or the utility of preventive measures.

There is one recorded case of premature delivery and death of the mother.

I am indebted to Dr. Wynne for the information on which this summary is based.