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POLIOMYELITIS TRENDS, 1960

Paralytic poliomyelitis is a virus disease that gains in strength with the advance of the summer season, attacking in its course people of all ages but particularly those under 40 and more particularly those under 20 years of age. This was the experience of the decade from 1951 to 1960. In other respects the disease has been variable, some years reaching an epidemic level for the country as a whole, some years falling far short, with the rate of incidence of the new cases in one province often greatly different from that in another.

The course of the disease in 1960 illustrates these points: there were more cases in the ninth 4-week period than in any other period of the year; the highest attack rate appeared in the age group four years and under; the overail rate of 5.1 cases per 100,000 was less than half the rate of the previous year, yet in four provinces the

1960 rate was higher than that for 1959. (Age is not reported for all provinces.)

The seasonal incidence of new cases in 1960 reached its highest levels in the eighth, ninth and tenth 4-week periods. Seven times altogether in the past 10 years these have been the three periods in which the most cases occurred. While the last 24 weeks have always accounted for the majority of cases the first 28 weeks have on occasion contributed substantially to the year's total, 1960 being an example of this, with 28 per cent of the cases coming in the first 28 weeks of the year. In contrast, in 1959 there were seven per cent of cases, only, in this period.

The effect of paralytic poliomyelitis for a number of years on people of different ages is displayed in some detail in the following table,—for six provinces for which this information was continuously available.

Age-Specific Case Rates per 100,000 Population

		411 o		Age group												
Province		All age:	5	4 years and under				5-14		15-19			20 years and over			
	1951	1959	1960	1951	1959	1960	1951	1959	1960	1951	1959	1960	1951	1959	1960	
Total	2.9	8.4	9.9	5-8	29.6	26.8	6.8	11.1	15.7	4.1	5.2	9.7	1.0	3.3	4.2	
Newfoundland New Brunswick Manitoba Saskatchewan Alberta British Columbia	1.1 2.9 4.2 6.9 2.3 0.1	31.0 9.5 2.9 5.0 6.7 8.0	10.7 15.2 1.4 6.2 15.7 10.1	5.3 12.2 12.0 4.3 0.8	125.0 21.5 15.3 17.7 18.8 21.6	47.4 24.1 5.7 16.7 42.6 23.1	3.6 8.3 10.5 14.8 4.1	31.4 13.5 1.1 4.7 10.4 12.9	7.6 34.8 2.7 10.8 23.7 13.7	2.3 5.3 7.3 6.8	19.7 5.7 - 4.2 2.2 5.8	9.3 18.1 1.5 9.5 12.6 8.3	0.5 0.3 1.0 3.3 0.9	2.7 5.4 1.5 2.5 3.0 4.2	0.9 3.7 0.2 1.7 6.6 6.8	

The truth of the statement that the disease attacks most strongly the younger age groups is evident. It is also evident that the effect on one age group relative to any other varies both from year to year and from province to province. For the six provinces considered as a group the total rate for those four years and under was, in round terms, six times the rate of those 20 and over in 1951, nine times in 1959 and six times in 1960. In the same round terms the total rate for those in the 5-14 age group was seven, three and four times the 20 plus rate in 1951, 1959 and 1960, respectively. In Newfoundland the four years and under rate in 1960 was more than 50 times as great as the 20 plus rate, in British Columbia it was between three and four times the rate of the older age group.

The average yearly rate per 100,000 persons for poliomyelitis for all Canada for the 10 years 1951-60 was

eight cases. (In 1945 and 1953 Alberta did not report paralytic poliomyelitis separately.) The Canada rate in those 10 years reached a maximum of 28.3 in 1953 and a minimum of 1.1 in 1957. The highest provincial rate recorded in the decade was that of 182.9 for Manitoba in 1953. In that year the New Brunswick rate was only 2.4 per 100,000. In 1960 the Manitoba rate was 1.4, the New Brunswick rate 15.3.

Differences in rate of seasonal advance, fluctations in intensity in time and in place, these are the highly variable features of paralytic poliomyelitis; concentration in the summer reaching a peak in the ninth 4-week period of the year, highest incidence among the younger age groups, these are the constant features of the disease in the last 10 years.

Notes:

- 1. All information for cases presented in this report is for paralytic poliomy elitis (080.0, 080.1).
- 2. Data have been revised in accordance with the most recent information available.
- 3. As certain revisions in data are supplied in monthly totals they are pro-rated in order to adapt to the thirteen 4-week periods.
 - 4. The first 4-week period in 1960 ended on January 30.
 - 5. Deaths are from acute poliomyelitis (080). These figures are supplied by the Vital Statistics Section, D.B.S.
 - No cases reported.
 - .. Figures not available.
 - -- Less than 0.05.

Prepared in the Health and Welfare Division Public Health Section

TABLE 1 Cases and Rates per 100,000 Population, by Provinces, 1951-60

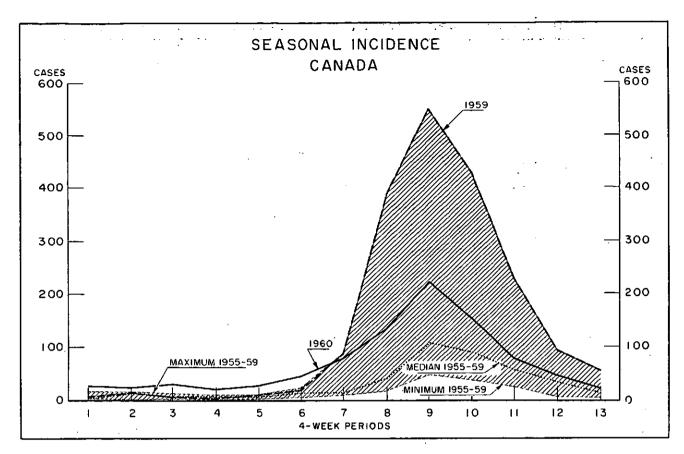
	<u> </u>	Ī	<u> </u>		10.1	1.5	4. 3		T	Τ		1	
Year	Canada	Nfld.	P.E.I.	n.s.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.
						C	ases			•	1		•
1951 1952 1953 1954 1955 1956 1957 1958 1958 1959	1, 220 1, 595 3, 912 1, 456 584 400 182 249 1, 886 909	162 162 14 12 . 3 . 1 4 139 49	13 56 6 49 11 3 —	205 41 25 63 55 9	15 67 13 7 6 7 5 4 62 92	247 123 477 791 119 156 37 79 1,171 284	619 269 985 94 75 127 54 20 200 39	37 410 1,480 66 15 15 8 107 26	57 447 357 41 20 7 20 1 46 56	22 1 221 125 35 31 22 83 201	1 180 407 110 146 37 26 12 132 165	1 - - 1	10
					<u> </u>	R	ates²					1	
1951	8.7 11.8 28.3 9.5 3.7 2.5 1.1 1.5 10.8 5.1	1.1 0.5 42.3 3.5 3.0 0.7 0.2 0.9 31.0	13. 2 56. 0 5. 9 48. 5 11. 0 3. 0	31.9 6.3 3.8 9.4 8.1 1.3	2.9 12.7 2.4 1.3 1.1 1.3 0.9 0.7 10.5 15.3	6. 1 2. 9 11. 2 18. 0 2. 6 3. 4 0. 8 1. 6 23. 4	13. 5 5. 6 19. 9 1. 8 1. 4 2. 3 1. 0 0. 3 3. 4 0. 6	4.8 51.4 182.9 8.0 1.8 0.9 12.3 2.9	6.9 53.0 41.5 4.7 2.3 0.8 2.3 0.1 5.1 6.2	2. 3 1 20. 9 11. 5 3. 1 2. 7 1. 8 6. 7 15. 7	0.1 14.9 32.6 8.5 10.9 2.6 1.7 0.8 8.4 10.3	8. 2 - 7. 7	47.6

TABLE 2. Cases, by 4-week Periods, Canada, 1951-60

	111111111111111111111111111111111111111		· · · · · · · · · · · · · · · · · · ·	WEEK I		7	, 1001		-	
4-week period	1951	1952¹	1953¹	1954	1955	1956	1957	1958	1959	1960
				ļ <u>. </u>	cas	ies				
Total	1,220	1,595	3,912	1.456	584	400	182	249	1, 886	909
1	6	7	17	25	15	7	6	4	7	27
2	2	4	12	21	11	13	5	2	11	23
3	1	8	6	18	12	6	2	5	5	30
4	1	3	6	11	9	∵ 9	6	2	1	19
5	4	5	12	26	9	8	3	. 2	9	28
6	4	8	32	33	20	5	8	13	16	45
7	34	48	136	73	47	10	14	10	86	80
: 8	176	219	682	187	93	40	23	17	385	135
ʻ 9	406	428	1,126	375	163	107	45	65	549	221
10	, 332	388	1,042	357	91	89	38	66	427	152
11	- 161	239	506	185	61	55	22	44	225	79
12	64	131	236	96	32	40	5	10	95	45
13	16	-51	. 99 -	49	· 21	11	5	9	53	20
Not stated	13	56				٠			17	5

¹ Cases in Alberta not reportable by type.

Cases in Alberta not reportable by type.
 Excluding provinces which did not report.



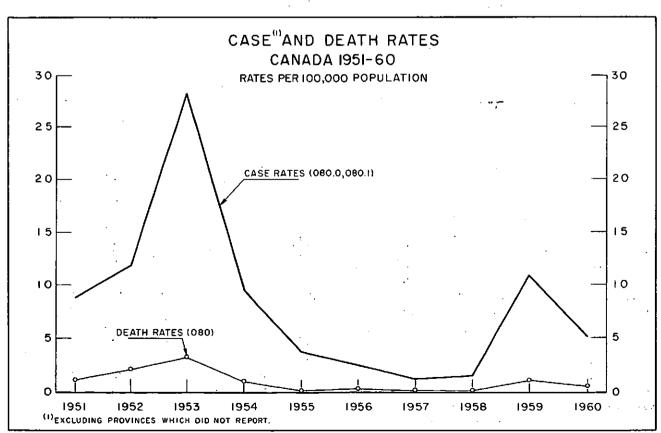


TABLE 3. Cases, by Age for Specified Provinces, 1951-60

			• .			;	Age gr	oup				
Year	Total	Under 1 year	1-4	5-9	10 - 14	5 - 14	15 - 19	20-39	40-59	60 years and over	20 years and over	Not stated
							cases					
1951	136 1,106 2,419 459 324	3 34 84 16	30 228 568 84 79			56 396 820 164 95	14 116 165 50 29				29 315 758 138 111	17 24 7 3
1956	104 91 150 1,041 860	2 3 8 54 45	27 27 44 329 261	280 197	80 95	27 15 29 360 292	4 4 6 58 56	196 148	28 24	2 2	43 40 62 226 174	1 2 1 14 32

See notes 1 and 2, Table 5.

TABLE 4. Percentage of Cases, by Age for Specified Provinces, 1951-60

							Age gro	oup	•			
Year	Total	Under 1 year	1-4	5 - 9	10-14	5 - 14	15 - 19	20 - 39		60 years and over		Not stated
		•		ŀ		pe	er cent	···				
1951	100.0 100.0 100.0 100.0 100.0	2.2 3.1 3.5 3.5 2.1	22. 1 20. 6 23. 5 18. 3 24. 4			41.2 35.8 33.9 35.7 29.3	10.3 10.5 6.8 10.9 9.0				21.3 28.5 31.3 30.1 34.3	2.9 1.5 1.0 1.5 0.9
1956	100.0 100.0 100.0 100.0 100.0	1.9 3.3 5.3 5.2 5.2	26.0 29.7 29.3 31.6 30.3	26.9 23.0	7.7 11.0	26.0 16.5 19.3 34.6 34.0	3.8 4.4 4.9 5.6 6.5	18.8 17.3	2.7 2.8	0.2 0.2	41.3 44.0 41.3 21.7 20.3	1.0 2.1 0.7 1.3 3.7

See notes 1 and 2, Table 5.

TABLE 5. Age - Specific Case Rates per 100,000 Population for Specified Provinces, 1951-60

	_	Age group													
Year	Total ³	Under 1 year	1-4	5-9	10-14	5 - 14	15-19	20 - 39	40-59	60 years and over	20 years and over				
		,			•	rates			•	•					
1951	2.9 29.3 62.5 9.1 6.3	2.6 36.0 84.5 11:9 5.1	6.7 61.9 151.6 17.2 15.8			6.8 57.4 113.7 17.1 9.5	4.1 42.3 59.3 13.8 7.8			-	1.0 13.6 32.1 4.5 3.6				
1956	2.0 1.7 2.7 9.6 7.6	1.4 2.1 5.5 19.2 16.0	5.2 5.0 7.8 30.1 23.5	22.7 15.6	7.5 8.6	2.6 1.4 2.5 15.7 12.4	1.1 1.0 1.5 6.9 6.4	6.6 5.0	1.3	0.2	1.4 1.2 1.9 3.7 2.8				

¹ For 1950-58 an age distribution was reported for the following provinces: Newfoundland; New Brunswick; Manitoba; Saskatchewan; Alberta; and British Columbia. In 1959 Quebec and the Yukon began reporting an age distribution also.

² Cases in Alberta not reportable by type.

³ Excluding age not stated.

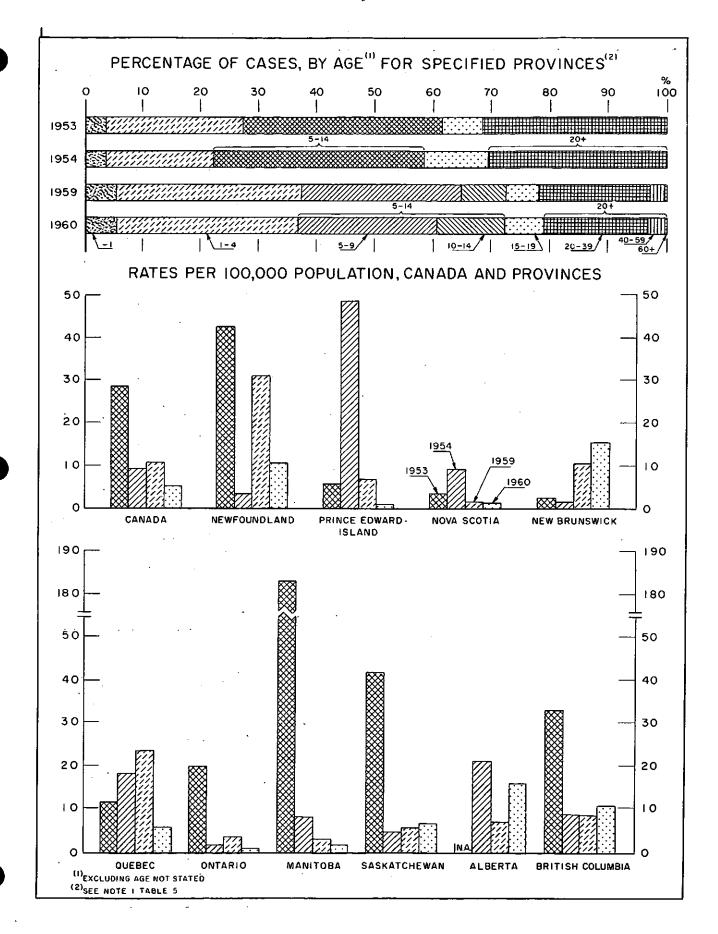


TABLE 6. Deaths and Rates per 100,000 Population, by Provinces, 1951 - 60

Year	Canada	Nfld.	P.E.I.	n.s.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.
						D	eaths						
			-				-						
1951	162	_	2	23	2	10	101	4	12	2	6	-	-
1952	311	_	2	6	11	12	46	25	90	79	40	_	
1953	494	11	1	6	5	33	124	91	72	108	30	9	4
1954	157	_	4	6	_	80	21	5	7	28	6	-	-
1955	36	_	. –	• 1	1	13	6	1	5	4	5	– 1	-
1956	51	_	_	1	_	27	13	_	3	3	4	_	
1957	26	_		1	_	6	8	_	4	6	1	_	_
1958	26	_	_ :		1	5	5	11	٠ _	1	3	_	-
1959	182	12	1	_	7	106	23	2	3	12	14	_	2.
1960	83	5	-	1	2	38	3	1	8	11	14	-	-
							Rates						
			ļ										
1951	1.2	–	2,0	3.6	0.4	0.2	2.2	0.5	1.4	0.2	0.5	-	
1952	2.2	_	2.0	0.9	2.1	0.3	1.0	3.1	10.7	8.1	3.3	ľ –	_
1953	3.3	2.9	1.0	0.9	0.9	0.8	2.5	11.2	8.4	10.7	2.4	100.0	25.0
1954	1.0	-	4.0	0.9	-	1.8	0.4	0.6	0.8	2.6	0.5	-	-
1955	0.2	_	-	0.1	0.2	0.3	0.1	0.1	0.6	0.4	0.4	-	_
1956	0.3		_	0.1	_	0.6	0.2	_	0.3	0.3	0.3	_	_
1957	0.2	_	-	0.1	_	0.1	0.1	_	0.5	0.5	0.1	-	_
1958	0.2	-	_	-	0.2	0.1	0.1	1.3	-	0.1	0.2	-	
1959	1.0	2.7	1.0	-	1.2	2.1	0.4	0.2	0.3	1.0	0.9	-	9. 5
1960	0.5	1.1	_	0.1	0.3	0.7		0.1	0.9	0.9	0.9	-	-

TABLE 7. Deaths, by Age, Canada, 1951 - 60

					Age	group			
Year	Total	Under 1 year	1 - 4	5 - 9	10-14	15-19	20-39	40-59	60 years and over
					deaths		J		
1951	162	4	12	16	24	27	69	9	1
1952	311	11	33	57	42	30	124	12	2
1953	494	12	37	51	44	44	275	25	6
1954	157	6	37	30	16	10	45	12	1
1955	36	_	8	3	2	4	14	5	-
1956	51	_	14	8	5	2	22	_	_
1957	26	_	4	2	1	3	14	2	-
1958	26	1	3	2	1	_	18	1	-
1959	182	10	28	36	3	12	67	14	2
1960	83	9	16	15	5	6	22	9	1

TABLE 8. Percentage of Deaths, by Age, Canada, 1951-60

		<u> </u>	•		Age	group			
Year	Total	Under 1 year	1-4	5-9	10 - 14	15 - 19	20 - 39	40 - 59	60 years and over
					per cent		· · · · · · · · · · · · · · · · · · ·		
1951	100.0	2.5	7.4	. 9.9	14.8	16-7.	42.6	5.6	0.6
1952	100.0	3.5	10.6	18.4	13.5	9.6	39.9	3.9	0.6
1953	100.0	2.4	7.5	10.3	8.9	8.9	55.7	5.1	1.2
	100.0	3.8	23.6	19.1	10.2	6.4	28.7	7.6	0.6
1955	100.0	-	22.2	8.3	5-6	11.1	38.9	13. 9	-
1956	100.0	_	27.5	15.7	9.8	3.9	43.1	_	-
1957	100.0	-	15.4	7.7	3.8	11.5	53.9	7.7	-
1958	100.0	3.8	11.5	7.7	3.9		69.2	3.9	-
1959	100.0	5.5	15.4	19.8	7.1	6.6	36.8	7.7	1.1
1960	100.0	10.8	19.3	18. 1	6.0	7.2	26.5	10.8	1.2

TABLE 9. Age - Specific Death Rates per 100,000 Population, Canada, 1951-60

					Age	group	<u> </u>		
Year	Total	Under 1 year	1-4	5-9	10 - 14	15 - 19	20-39	40 - 59	60 years and over
					rates			<u> </u>	
1951	1.2	1.1	0.9	1.1	2.1	2.6	1.6	0.3	0.1
1952	2. 2	2.9	2.3	3.8	3.5	2-8	2.8	0.4	0.1
1953	3.3	3.1	2.6	3.3	3.5	4.0	6.2	0.8	0.4
1954	1.0	1.5	2.5	1.8	1.2	0.9	1.0	0.4	0.1
1955	0.2	-	0.5	0.2	0.1	0.4	0.3	0.2	-
1956	0.3	_	0.9	0.4	0.3	0.2	0.5	_	_
1957	0.2	1 - 1	0.2	0.1	0.1	0.2	0.3	0.1	_
1958	0.2	0.2	0.2	0.1	0.1	_	0.4		-
1959	1.0	2.2	1.6	1.8	0.8	0.9	1.4	0.4	0.1
1960	0.5	2.0	0.9	0.7	0.3	0.4	0.4	0.2	0.1



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