Notes on Dr. Braun's Trip to Canada

re Lung Cancer Survey

for Johns-Manville Corporation

February 22, 1956

Sunday, Feb. 19, 1956, conference with Dr. Kenneth Smith of J-M, Mr. Ivan Sabourin, Dr. Viau, Dr. Cyr, Dr. Roger Granger and Dr. Paul Cartier at Mr Sabourin's home. Mr. Sabourin presented a broad outline of the need for an epidemiological study, the interest of the Quebec Mining Association in such a study, and the facilities of DCF.

Monday, Feb. 20, conference with Dr. Groulx, City Health Officer from Montreal with Dr. Smith and Mr. Sabourin. General problem outlined for Dr. Groulx. Dr. Masilla, statistician for the Montreal Health Dept. brought into conference. Promised cooperation, pointed out that death certificates were unreliable. Nevertheless, we were shown figures for deaths from cancer including a category for primary cancer of lung.

Lunch at the Mount Steven Club with Mr. Sabourin, Dr. [redacted] and Dr. Valois, City Health Officer for Verdun and formerly in Dr. Masilla's position. Dr. Valois is closely associated with the National Cancer Institute. He suggested conference with Dr. Phillips (statistician in Toronto for the National Cancer Institute), Dr. John T. Marshall and Dr. Kohn who are statisticians for the Dominion Government at Ottawa. Dr. Valois also thought that all cases of lung cancer diagnosed and treated in Montreal could be obtained from three sources: Dr. O. Dufresne at the Institute du Thoracique, Dr. Simard at Notre Dame Hospital and Dr. H.S. Martem at the Royal Victoria Hospital.

After lunch, Sabourin, Smith and I proceeded to Radium Institute for a conference with Dr. Origin Dufresne. He suggested writing to each hospital either in Montreal or the entire province for cases diagnosed over the past 10 years. His own records are very complete as regards cases diagnosed. Surgical cases are referred elsewhere. He does not believe his cases together with those at the Royal Victoria Hospital would represent all cases in Montreal. He admits that, to canvass the hospitals might duplicate many cases.

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Tuesday, Feb. 21. conference with Dr. Gregoire, Deputy Minister of Health, Province of Quebec, Dr. Smith and Mr. Sabourin. Dr. Gregoire opposes law to require reporting of cancer. He feels only chance of getting a control group is to be found in Montreal. he feels outlying centers such as Chicoutimi are too recently in operation and certificates of death are too inaccurate. He thinks there are too many cancer detection centers in the Province of Quebec, and they are not located where needed.

Conference with Dr. Paul Parrot, statistician for the Provincial Health Department. This was the most productive conference to date. Dr. Parrot is a conscientious and competent statistician. His records would be adequate providing we deal only with mortality. His death certificates are available; he follows up with the physician when the death certificate is questionable he corrects the cause of death when inquiry or subsequent autopsy so indicates. Limitations on the usability of Parrot's figures are as follows:

1) Only the immediate cause of death is used in the published reports although secondary causes is considered in the figures kept in the office.

2) The code number for cancer of lung in Parrot's statistics covers "neoplastic disease of lung or bronchus unqualified as to primary or secondary."

3) Previous to 1941, deaths were compiled as to place of occurrence although since that time they are compiled as to place of residence.

4) [illegible] correlation to mortality data (death certificates) we would miss all presently diagnosed cases not yet dead.

5) Every case reported as dying of Ca of lung could be followed although many are not confirmed by operation or autopsy. But it would be impossible to follow all cases certified as dying some other cause which may actually have been Ca of lung. Furthermore, an individual who may have actually died of another cause might also have had Ca of the lung.

Statistics from Dr. Parrot:

Population of the Province of Quebec - 4,500000 (approximately)
Total deaths in Province in 1954 - 43,169
Deaths from all types of cancer in Province in 1954 - 5,037
Deaths from lung cancer in Province in 1954 - 131 of which 108 were male
Mean age at death was between 65 and 70

0326

Notes:

Dr. Parrot stated "the rate was 116.4 per 100,000." If I have this figure correct, I cannot reconcile it with the above figures. 5017 divided by 45 equals 111.9 and 131 divided by 45 equals 2.9.

Dr. Parrot gave as population figures as follows:

Megantic County - 47,816 (in 1954)
(Thetford Mines is in Megantic County)

Richmond County - 16,285
(Asbestos is located in Richmond County)

Other localities having about the same population as Megantic County:

Portneuf - 45,000
Levis - 45,000

One locality with population comparable to Richmond County was Arthabaska with 19,000.

Best statistics in the Dominion of Canada are obtainable from British Columbia, Ontario, and Quebec.

Later on Feb. 28, visited Dr. Bertrand Bellemare who is the physician connected with the Workmen's Compensation Board and directly representing the Minister of Labor. Dr. Bellemare's attitude was one of resistance and defensiveness although he finally expressed a willingness to cooperate. It is Dr. Bellemare who is most troublesome to the industry.

Left by car for Thetford Mines afternoon of Feb. 28.

Feb. 22, Thetford Mines, Dr. Cartier's Clinic. Population of the city of Thetford Mines is estimated by Dr. Cartier and Dr. Smith as 19,000 (personnel man of Asbestos Corp estimates it at 18,000). Smith and Cartier estimate the population of the area at 45,000, the adult males at 7,500 and the workers in the asbestos industry at about 4,000. The latter is very stable and has a low turnover. Dr. Cartier has the impression that primary lung cancer incidence is higher in Thetford Mines than anywhere else in the Province except Montreal. He is concerned about the influence of autopsies on incidence figures and points out that there are three times as many cases of lung cancer in Montreal as there are in Quebec city, and that the number of autopsies performed in Montreal is exactly three times the number performed in Quebec city. I copied tables on the incidence of lung cancer from slides in Dr. Cartier's office.

The Clinic serves employees as follows:

Flintkote - 300
Asbestos Corp. - 1740
Johnsons - 623
Bell Asbestos - 450
Quebec Asbestos at East Broughton - 450
Lake Asbestos (UN Asbestos) - 200 (not a producing company)
Total - 3763 (probably hourly employees only)

Drs. Smith and Cartier think salaried workers would bring total to about 4000. The Lyon-McCloud Foundry with 120 employees is also serviced by the Clinic. A chest x-ray is made on each employee every year. Except for certain executives, all persons on the payroll get these x-rays.

Pre-employment examinations are also made at the Clinic and a complete folder is maintained on each worker. Content of this folder is outlined in my [illegible] notes and I have copies of forms used to record results of examinations and to report to the companies.

Drs. Cartier and Smith agree that about 75% of the people in the asbestos industry may have sufficient exposure to differentiate them from general population. They include, for example, supervisors and product control men who have occasional exposure to the fiber or dust. They rate exposures in five categories. On this basis, 3000 people at the Thetford Mines would constitute the population of the study. There is a question as to whether or not the entire population of the community should be used or all employees of the asbestos industry or only those with at least this minimum exposure. This "contact" with fiber or dust is not to be confused with exposure in the sense of acquiring asbestosis.

Dr. Cartier states that there are now known living 148 cases of Asbestosis of any degree. He believes there are perhaps 300 additional who have less than radiological changes. (Smith does not agree, and at best this must be only a guess on Cartier's part.) Dr. Cartier estimates an additional 40 may have died having some degree of asbestosis or retired or been compensated. There are, therefore, 185 possible cases of radiologic asbestosis.

18 cases of lung cancer are known to Dr. Cartier on the basis of post mortem confirmation over a period of 28 years. Of these, one was later proved to be metastatic from kidney; 4 others he considers questionable because 2 were without post mortem and 2 were simply reported as cancer of lung on the death certificate. Of the 13 remaining cases all were proven by autopsies as being primary in lung. Four had advanced asbestosis; 7 had minimal or questionable asbestosis (negative for asbestosis on x-ray); and 2 had no evidence of asbestosis at autopsy. One of these cases occurred in 1944, one in 1947 and the remainder in the period 1946 to 1955, inclusive. They represent all of the cases in the Province of Quebec except two occurring at Asbestos.

Evening of Feb. 22, dinner meeting with Dr. Phillips of the Canadian Cancer Society and Dr. Simard, Past President of the Society at the Mount Steven Club. Others present were Mr. Jabourin, Dr. Smith, Dr. Cartier, Dr. Gui and Dr. Vidal. This was to explore the possibility of obtaining from the Cancer Society statistics and figures relating to incidence in the Province. My impression that Dr. Phillips and Dr. Simard did not understand what was wanted and proceeded on the theory that the Cancer Society would set up and plan a study to be financed by the QAMA and Mellon Institute.

February 23 at Asbestos with Dr. E. T. Granger. The Clinic serves 3000 workers, all J-M, and in addition does periodic x-rays on 438 to 444 Asbestos Company workers. 2577 periodic x-rays exist in 1953. As of 1955 there were 17 cases of radiologically diagnosable asbestosis. The reading is sufficiently alike at Asbestos and Thetford so that the discrepancy cannot be accounted for on this basis. The dustiness is considered to be lower at Asbestos than at Thetford Mines. No additional cases of asbestosis could at first be recalled but later we found one compensated in 1946, 2 dead, one with asbestosis and cancer, making a total of 21 cases of asbestosis. Note, 168 cases out of 4000 at Thetford and 21 cases out of 2500 at Asbestos would indicate an incidence of asbestosis at Thetford 3 times that at Asbestos. Total known cases of cancer of lung at Asbestos is 2. Detailed information on each in my handwritten notes. One of these cases had asbestosis, the other had no asbestosis. The latter was not autopsied.

J-M has compulsory retirement at age of 65, Thetford has not. There is good follow-up of retired employees aided by the fact that all local medical facilities are keenly aware of asbestosis.

It is my impression that the industrial hygiene at J-M must be very much better than at Thetford.

J-M transfers men when periodic x-ray first indicates fibrosis. They also rotate men in the course of normal employment. No such rotation or transfer occurs at Thetford.

The age of the two workmen is similar. The average of J-M workers is lower than at Thetford. Smith and Granger think as much as 10 years.

Discussion with the personnel man at J-M in Asbestos discloses that the bulk of the J-M employees live within a radius of 15 miles of Asbestos. There are 2380 employees on hourly rate of which 375 work in the factory. 590 salaried employees make up the total to 2950. Mr. McCabe states that there is a low labor turnover but not quite as low as at Thetford. Asbestos is a one-industry town; the labor force comes mainly from Richmond and Arthabaska Counties. The population of Asbestos is approximately 10,000. Danville has 2500 to 3000, Richmond has 4000 to 5000, and there are a few small factories including shoe, textile and foundries in Richmond County.

The Travelers' Insurance Company covers sickness, accident, and death benefits. Diagnoses and causes of death are available from their records. Insurance is continued after retirement of the employee. Serious illnesses are, for the most part, treated in hospitals. Sherbrook and Arthabaska draw the major portion of the population, but some go as far as Montreal or Quebec.

On Friday, February 24, we a summarizing meeting with Mr. Sabourin at the Windsor Hotel after which we visited Dr. Simard at Notre Dame Hospital to clear up a point which Mr. Sabourin had missed at the Wednesday evening dinner meeting. We wished to make certain that Dr. Simard had taken the position Wednesday night that the Canadian Cancer Society would undertake, plan, and execute the study, and that they would expect to be paid therefore. In this latter discussion, it was obvious that this was his thinking.

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