

January 19, 1977

COMMENTS ON GLOBE AND MAIL EDITORIAL ON ARSENIC IN YELLOWKNIFE

1. Sample Size N.I.B. 66 (46 Indian children, 20 industrial workers.)

Medical Services Branch - 700 (155 industrial workers, remainder general population)

2. Selection of sample - N.I.B. specifically Indian children and plant workers

Medical Services Branch - Arsenic is accumulative poison and therefore emphasis was placed on obtaining samples from long term residents and from mine workers. Because of public concern, examination was also offered to any member of the public wishing to be tested.

3. M.S.B. survey 57% of workers tested had a level in excess of 5 ppm; ^{17.5% of total sample had levels > 5 ppm} ~~the highest being 443 ppm~~ 36% had levels in excess of 10 ppm ~~(56 individuals)~~ 50 of these individuals were given detailed clinical and laboratory examinations. Only five were found to have slightly elevated levels of body arsenic shown as urine samples ranging between 0.1 and 0.3 miligrams per 24 hours. It is a widely held scientific opinion that urine levels ranging from 0.7 to 1 miligram do not represent an undue hazard for workers in an arsenic environment. All these findings were released in news releases dated 27 May, 1975, and 3rd October, 1975.

N.I.B. Survey - No clinical investigations performed; hair samples alone ~~xxxxxxxindicate~~ are as the above indicates, unreliable as an assessment of potential clinical effects due to arsenic.

4. Specific points from editorial -

- (1) The suggestion of a degree of incompetence must be refuted
- (2) There are no hidden reports - results were either released as press releases as mentioned earlier, or in the case of two documents provided to the Y.E.S. Committee have been provided to the press. The ~~GAMEL~~ ^{GEMMILL} Report to the Y.E.S. Committee which is being quoted by N.I.B. as the Y.E.S. Report was released by D.O.E. in August, 1976. The Grainge Report to Y.E.S. Committee was released by the Chairman of the Committee in August, 1976. Both reports received comment in the media. The Y.E.S. Committee has been reviewing various submissions including the Gamel and Grainge Reports and was about to release its report on Monday, 17th January, 1977 which was the date on which N.I.B. released their report. The Chairman therefore, delayed release of Committee report whilst assessing the publicity caused by N.I.B. ^{schaff}

- (3.) Statistics -

- (a) Yellowknife statistics include individuals admitted to Yellowknife Hospital for diagnosis and treatment from communities other than Yellowknife.
- (b) Although percentage figures are given in the N.I.B. Release, the absolute numbers involved are very small and it is doubtful if a statistically valid conclusion can be drawn.

- (c) The population of Yellowknife has increased greatly over the past ten years as it is being developed as a Territorial Capital. Mortality and Morbidity figures therefore include individuals who have moved into Yellowknife during this period.

(4.) Government Memorandum -

This memorandum originated with a D.O.E. ^{Manager} ~~Junior~~ Echilon Officer who was expressing his personal opinion.

- (5.) The Y.E.S. Report is in fact the Gamel Report referred to earlier and was not therefore previously unavailable since it was given to the media by D.O.E. in August, 1976. It is one of many inputs of data to the Y.E.S. Committee.

(6.) Emission Levels

The levels quoted by N.I.B. are taken from the Gamel Report based on a five day sample performed by D.O.E. The Grainge Report describes annual releases and notes a figure of 475 for 1975. The conflict between the Gamel findings and findings noted by Grainge and by the industry itself needs to be investigated, however, since the Gamel Report conflicts with all others, it appears that ~~XXXXXXXXXX~~ the error is likely to be in the Gamel Report.

(7.) Snow -

Since 1949, individuals resident in the Yellowknife area have been warned ~~not to use snow~~ as a source of drinking water.

- (i) Water is supplied to all residents from a safe source either by pipe or by truck delivery.

(8.) Vegetation -

High levels of arsenic are known to exist in the soil as would be expected after 30 years of industrial emission. However, significant levels of arsenic are only found on leaves of green vegetables which can be rendered safe for eating by the normal process of washing. It is to be noted that the Gamel Report assigns a level of 10 ppm to all root vegetables but notes that this was the lowest value measurable by the technique which was used. It is at best unscientific to quote these figures as levels upon which to base advice.

- (9.) Mention is made of availability of Federal Governments own figures to the Task Force. The intent is that all figures in the possession of Federal Government will be made available to the independent Task Force.

5. Independent Study - In a separate review article in the Globe and Mail it is stated that N.I.B. will only accept an independent study if they have a say in selecting the members of the Task Force. The N.I.B. is a lobby group and therefore ~~XXXXXXXXXXXXXXXXXXXXXXXXXXXX~~ cannot be involved in the selection of an independent group any more than can Government. It is for this reason that the Canadian Public Health Association has been asked to carry out the selection of a truly independent Task Force.

6. N.I.B. cooperation -

- (i) After considerable effort, the only information which could be obtained from N.I.B. on the day of release of their report was a copy of their press release and of the press released by the University of Toronto. This was received late on Monday afternoon, 17th January, 1977.
- (ii) A brief summary of the University of Toronto findings in the form of three tables of figures was only received by the Minister's Office on the evening of Tuesday, 18 January, 1977.
- (iii) ~~NxIxRx~~ Lloyd Tataryn of N.I.B. verbally refused to provide the names of the Indian children who N.I.B. had tested in order that M.S.B. would follow up with investigations and assess any health danger to the children. It will therefore be necessary to subject the children to retesting. In order to obtain the information this will cause delay in the assessment of the degree of risk to the health of these children, if such exists, and of any treatment which might be necessary.

to MSB

TASK FORCE TO STUDY ARSENIC

A review of the press release suggests the need to bear in mind the following factors when considering the options as to how the Task Force is organized and funded:

- there is an obvious need for an unfettered relationship that will permit maximum freedom of action and choice of methodology by the members of the Task Force;
- the total scope of the exercise will only emerge after the initial or Phase II Task is complete, i.e. within the three-month period. Funding requirements for what might be called Phase II are necessarily contingent upon their initial or Phase I findings;
- the situation calls for an ability to quickly mount the Task Force and to permit it to commence its work without protracted negotiations or review by federal authorities of methodology, etc.
- it is assumed that since the Minister has announced the creation of a Task Force that no consideration has been given to an Official Commission of Inquiry.

In the light of the above, the options are considered under the following headings:

- a) Parties to the Relationship.
- b) Nature of the Relationship.

Parties to the Relationship

Since the present ground rules of the Contributions and Awards Division of the Health Programs Branch seem to require detailed applications and peer

group review as to scientific merit, it would seem that the primary funding source within National Health and Welfare should be Medical Services Branch rather than departmental research funds. It is for the reason that Medical Services Branch is indicated as the relevant Branch for purposes of this relationship.

1) Medical Services Branch and Individual Task Force Members

It is possible to enter into a contractual relationship with the three different members appointed to the Task Force but it would probably be necessary to designate one member as the head of the Task Force to whom additional funding would be made available for Task Force general expenses.

2) Medical Services Branch and the Canadian Public Health Association

Evidentially CPHA is willing to be an intermediary between this Department as the sponsor of the study and the members of the Task Force who would carry it out. Assuming agreement from Task Force members there is merit in using CPHA as an umbrella organization with whom we would contract for the study under approved Terms of Reference with CPHA in turn being the legal entity who would engage and pay both the Task Force members as well as fund their expenses.

3) Medical Services Branch and a University or Institution

If one or more of the recommended scientists is affiliated with a university or research institution, it may be possible for such an institution to be the legal entity with whom we would contract. The appropriateness of this option could be better assessed when the affiliations of the Task Force members are known.

4) Medical Services Branch, National Indian Brotherhood and Task Force Members or Umbrella Institution.

Assuming compelling reasons to ensure cooperation of natives of the work of the Task Force, there may be some merit in having

the NIB as a third party to the relationship even though they would not be a funding partner. This option could be time consuming and somewhat tricky to negotiate and moreover ignores the interest in the whole issue of the United Steel Workers of America.

At this point the second option is recommended since it provides both a legal entity with whom the Department could contract and also as a national association of credibility helps to ensure the impartiality and integrity of the exercise.

Nature of the Relationship

1) Medical Services Branch Contract with CPHA

A very rough initial system of what might be called Phase I (review of all available data) would be \$60,000 representing essentially professional fees for Task Force members, travel expenses, and incidental support services. Such an initial contract could provide for Phase II negotiations for further funding contingent upon the initial recommendations of the Task group. Medical Services Branch has sufficient funds in the current fiscal year and for purposes of a study such as this would require Treasury Board approval of any contract in excess of \$25,000.

2) Contribution to CPHA

Medical Services Branch cannot, by virtue of its approved vote structure make a "grant" to anyone. The Branch can, however, make a contribution to CPHA with Treasury Board approval and such contribution could be made conditional upon an agreed purpose or task. Contributions are subject to financial audit as to actual dispersion but without constraint as to choice of expenditure. The Branch has adequate funds in the current

fiscal year at least for Phase I of the task.

3) Medical Services Branch Contract with Individual Task Force Members

While possible and legal, it would seem rather awkward to contract with three separate individuals to produce a common report and, in any event, such provisions would have to be made with the head of the Task Force to cover non-salary expenses.

It is felt that an acceptable contract could be written as in Option I above that would at one and the same time probably be the most expeditious administratively and also permit maximum flexibility to the contractee.

Summary

At this stage it would seem that Medical Services Branch should be the funding source, that the parties to the relationship should be Medical Services Branch and an umbrella organization such as CPHA or, depending upon the identity of the Task Force members, possibly a university institution and financing with a very generally worded contract, rather than a research grant or contribution, is the appropriate vehicle to define and fund the task.

PRESS CLIPPINGS - COUPURES DE PRESSE

NAME OF PUBLICATION NOM DE PUBLICATION

GLOBE AND MAIL

DATE

19-1-77

Ottawa hides the poison

In creating an independent task force to investigate arsenic contamination in Yellowknife, Health and Welfare Minister Marc Lalonde is admitting to a degree of incompetence in the past and taking the minimum necessary action to sustain his credibility in the future. As a second immediate step, Mr. Lalonde should insist that all official reports on the situation be released to the public.

The irony is that so much of the information damaging to the federal Government comes from the federal Government itself; the Yellowknife Environmental Study (YES) of July, 1976 (not previously released to the public); Statistics Canada; and an unfortunate Government memo.

The National Indian Brotherhood, the United Steelworkers of America and the University of Toronto collaborated to review existing Government reports on arsenic pollution in Yellowknife. The Government's previously unavailable YES report showed that 11 of 12 snow samples exceeded "emergency" levels of arsenic contamination, and Yellowknife's soil and vegetation contained up to 2,000 times more arsenic than normal. On these bases the Government itself recognized that the snow was unsafe to use for drinking water, and a University of Toronto biology professor says Yellowknife's garden vegetables are also unsafe to eat. These conclusions are directly based on facts in the YES report, although Health and Welfare Minister Marc Lalonde has stated in the past that arsenic contamination is not a problem in Yellowknife.

Then there are rather startling discrepancies. The YES report's claim that an average of 167.4 pounds of arsenic is emitted from the Giant Yellowknife Mines stack each day is contradicted by the gold-mining company's own records, which show single-day emissions exceeding 600 pounds in the weeks immediately before and after the Government conducted its tests, and no day as low as 167 pounds. Similar discrepancies exist in a second, still confidential, Government report. Moreover, the University of Toronto contradicts the figures in an earlier report on arsenic in human hair, and suggests that four times as many Yellowknife residents as the Government indicated may have abnormal arsenic concentrations in their bod-

ies—more than half the population tested.

Finally, an internal Government memo dated in February, 1975, and written by the Government's head of air pollution control for the northwest region, reveals that the organization which sets in-plant industrial hygiene standards "has recommended that the previous arsenic eight-hour exposure be reduced from 500 micrograms per cubic metre to four micrograms per cubic metre". The memo continues, "It would be advisable not to release this information to the public as it may cause undue concern."

Figures from Statistics Canada indicate relatively high and increasing rates of cancer in Yellowknife's population.

Mr. Lalonde's task force will be examining the Government's own figures on arsenic in snow, soil and vegetation, along with troubling federal statistics on disease. There are two strong challenges to the Government's estimates of arsenic emission levels and concentrations in human bodies. And there is a Government official counselling secrecy on a controversial public health problem in the context of two other reports not released to the public. It all sustains the sense of urgency so clearly communicated by the Government's critics.