

14 October 2003

TO WHOM IT MAY CONCERN:

Re: School Building Seismic Safety Program

Dr. Tracy Monk, a physician in Burnaby, contacted me about concerns for the safety of school buildings in the Lower Mainland should there be a major or even a moderate earthquake. Dr. Monk's initial assessment of the problems indicated that there was sufficient evidence to show that investing in seismic upgrading of school buildings in the Lower Mainland would be very cost effective – at least as cost effective as other public health measures. I put her in contact with Dr. Rick Mathias at U.B.C. and Dr. Monk proceeded to produce an excellent paper.

Her paper showed that:

In an earthquake of MMI VIII, we could expect 2% of school buildings to collapse. In recent school collapses in Turkey and Italy, the fatality rate of building occupants was about 50%. If we assume a 40% fatality rate in these buildings, we could expect the deaths of 240 school children and the serious injury of 4 times that many i.e. 960. **(240 dead children and 960 seriously injured, with the more probable moderate earthquake.)**

At a price tag of \$400 million dollars, the cost of seismically mitigating Vancouver's school buildings is \$43,000 per year of life saved. This figure does not even take into account serious injuries averted. This compares very favorably with the costs of the following public health interventions:

- Airbags: \$128,000 per life year saved
- PAP smear: \$68,000 per life year saved (if done every 3 years)
- Child seats: \$44,000 per life year saved

The cost per life year saved could prove to be considerably less.

I therefore support Dr. Monk's call for **the development of a School Building Seismic Safety Program** as a useful public health measure.

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Chief Medical Health Officer

cc: Dr. Tracy Monk, 260 – 9600 Cameron Street, Burnaby, B.C. V3J 7N3
Mr. Chris Kelly, Superintendent of School, Vancouver School Board
Dr. Perry Kendall, Provincial Health Officer (copy of report sent)