Supplementary Submission No 14a

INQUIRY INTO USE OF CANNABIS FOR MEDICAL PURPOSES

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Supplementary submission by Emeritus Profess or Laurence Mather (Submission #14)

To The Chair and Committee GPSC4

I attended the whole day of the first Hearing on the Medical Use of Cannabis and became concerned that many vital issues were not being addressed by the witnesses and many vital questions were not being asked by the Committee. In stating this, I point out that I was a member of the 2000 Working Party in the capacity of a senior academic medical research scientist/pharmacologist with decades of experience in pain research and drug delivery techniques. I note that none of the submissions made or oral evidence to date has been made by a pharmacologist.

Based on my knowledge and relevant experience I wish to draw your attention to some vital issues that appear to have been overlooked, to date, by both the Committee and the witnesses.

Cannabis was removed from medical practice some 50 years ago at a time when there was little medical, and virtually no scientific information about it. It was removed for ideologically based politico-legal reasons, neither medical, nor scientific. The scientific knowledge about cannabis has undergone a dramatic outburst during the past 20 years, corresponding to more enlightenment as to the pharmacotherapeutic potential.

The current debate about the medical use of cannabis, and its possible reintroduction, is dominated in many parts of the world by the prominent reporting of the harms that it might cause – but these are the harms, typically headlined in the lay press, described from reports and surveys of recreational users. In most parts of the world, it is only possible to obtain funding for research into the harms of cannabis – as opposed to a broader consideration of the possible benefits and uses.

Cannabis is not a single drug, it is a mixture of very many substances that vary with plant strain, conditions of growing, storage, harvest and preparation, etc.. These various components of cannabis, when ingested, have various pharmacological actions.

The cannabis used for recreational purposes is of a chemical composition unknown, and additionally may contain contaminating chemical impurities such as pesticide, bird droppings, heavy metals, fungus and mould, etc., that are also unknown. These various components also will contribute to the favourable or unfavourable pharmacological actions attributed to the cannabis.

To ascribe the adverse effects of cannabis in recreational users without any knowledge of the doses and dosing frequency, chemical purity, circumstances of dosing such as unknown drug combinations, as well as physical and health status of the users, etc. is not evidence –it is pharmacological nonsense.

A fundamental rule of pharmacology is that no drug can ever be considered as “safe”. Medical science is concerned with relative risks and benefits of one treatment against another or of no treatment at all. There are adverse effects of cannabis used medically in patients, and these have been described in medical-scientific publications as being generally predictable, and of relatively low incidence and intensity compared to many

conventional treatments used for the same conditions. The adverse effects of no treatment are generally unknown but they are certainly significant to the patient!

There is now a large body of evidence reported in the scientific and medical literature attesting to the known and potential usefulness of cannabinoid medicines for the pharmacotherapy of many conditions ranging from the treatment of neurological injuries to the treatment of cancer. The volume of such evidence was not anticipated in the 2000 NSW Working Party Report.

Various supply models have been discussed from approved "grow your own plants" to prescribed "pharmaceutical dosage forms". Patients or their carers should not be burdened by the need to grow and/or prepare their medicine. Pharmaceutical dosage forms should be simple to use and be readily affordable. The Dutch model, which I know most about, provides a sensible basis for the supply and preparation of medicinal grade cannabis to patients and is worthy of consideration.

The committee has heard much about Sativex, the oromucosal dosage form developed by GW Pharm Plc of the UK and now available in various countries. The preponderance of research literature over the decade since the NSW Working Party Report has been based on Sativex due to the company's development policy in positioning Sativex as the *de facto* standard cannabinoid preparation.

Much has been speculated on the cost of Sativex to patients. It has been reported that in Canada, a month's supply of Sativex will cost patients using nine sprays a day about $500, comparable to other multiple sclerosis drugs (and about the same as a month's supply of pot bought at California medical marijuana clubs!). To my knowledge a unit drug cost for Australia, should it be approved, has not been determined. However, the cost needs to be assessed in terms of the cost–effectiveness ratio for quality-adjusted life-year. This has been determined for several countries and uses, and has been seen to be favourable due to consideration of reduced resource consumption (e.g., physiotherapy and medications for patients with MS-related spasticity).

However, other dosage forms also need to be considered and/or further developed and to compare with existing dosage forms for simplicity, efficacy and cost-effectiveness. Whilst there is considerable evidence to avoid smoked cannabis (in all but the most expedient and/or compassionate of cases), the Dutch research on vaporization of cannabis/THC is impeccable. Similarly, the Dutch research on cannabis "tea" is worthy of consideration.

There is now much evidence for the usefulness of cannabis/cannabinoid medications. Modern medicine is committed to an evidence based adoption of practice and these standards should also form the basis of the political deliberations about this issue.

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