Clinical Performance Indicators for PHOs

Delphi Group Summary Report

May 2003

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Summary of Delphi Group

Introduction

This is a summary of the feedback received from the members of a Delphi Group convened to try to reach a consensus on an initial set of indicators that could be used to measure clinical performance of PHOs using a nationally consistent framework.

The idea of using a Delphi Group arose from a meeting to discuss clinical performance indicators hosted by the Ministry in August 2002. That meeting discussed the need for indicators from a number of different perspectives and decided upon a suitable process for developing a set of indicators.

The meeting was aware that an HRC had funded a project to develop and trial indicators, but that results were not expected for two years. The Ministry and those present at the meeting were of the view that this was too long to wait before beginning to get some experience with the operation of national indicators. A set of criteria for choosing indicators were proposed, and it was agreed that the Ministry would undertake to develop a first draft set of indicators ("the Ministry draft set"), and request feedback from stakeholders.

It was agreed that, following the collection of feedback, an electronic Delphi Group would then be used to see if a consensus could be developed around a first set of indicators to be used in DHB / PHO contracting.

It was explicit that any set developed would be only a minimum set and that each DHB / PHO would be able to add any other indicators that they felt were relevant to their particular situation. There was also a consensus that any set of indicators will be dynamic, changing as more information became available and as data collection and analysis capacity improves.

This report summarises the three rounds of the Delphi Group, discusses some of the different perspectives that emerged, and suggests a set of indicators that could be used in DHB / PHO contracting.

Process

The starting point for the Delphi Group was the Ministry draft set of 16 indicators (appendix 1). The Ministry supplied us with an initial list of participants, which was based upon the list of invitees to the August meeting. Anyone expressing a subsequent interest to the Ministry in being involved in the Delphi process was added to the list. This final list had 85 people on it. The Delphi Group was facilitated by Barry Gribben and Allan Pelkowitz.

A Delphi Group is usually a small (6-12) expert panel charged with developing a consensus view by iterated feedback of the group view to participants. The feedback is anonymous and is usually provided as a statistical and/or narrative summary of participants' views. In this

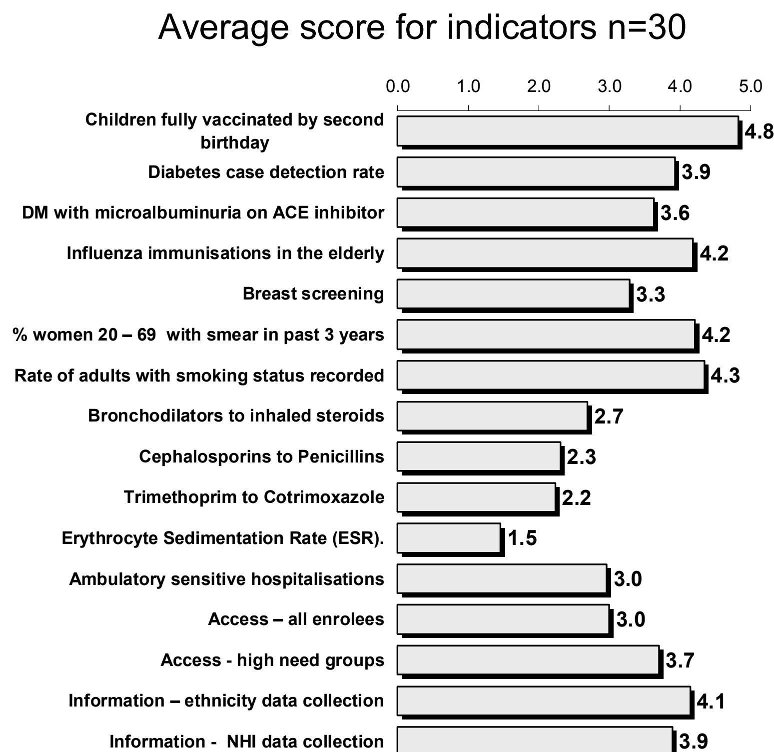
case the Delphi Group was potentially much larger and considerably more heterogeneous than is normal, with a wide range of institutional and individual experience represented. In addition to the usual feedback, an interactive web site was set up with a document repository, announcements, posting of results and a series of discussions threads, will the facility for any participant to start a new thread. It was emphasised that contributions to the site could be anonymous, but that a contributor could identify themselves if they wished.

First round

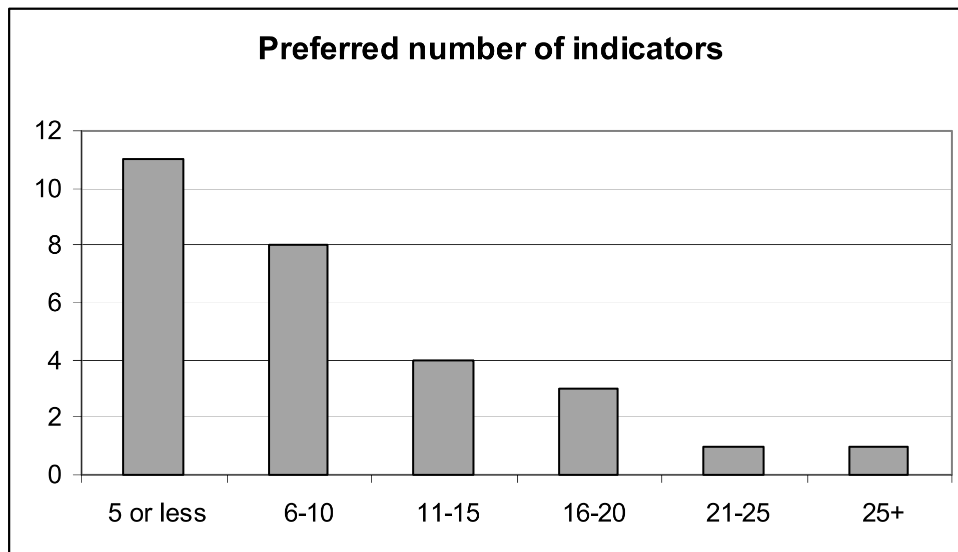
The first round was initiated with the distribution of the Ministry draft set, all documentation that had been issued subsequent to the face-to-face meeting, and an invitation to participate. The invitation described the process and asked people to consider the time commitment required and their level of knowledge regarding clinical indicators before joining the group. It was requested that participants read all background material. To continue in the Delphi Group a participant had to return their feedback on a provided form. The feedback requested was:

- A scoring on a 1-5 scale of each of the 16 Ministry indicators
- A preferred number of indicators
- Up to two suggested new indicators, with the specification of data sources
- Up to two suggested deletions, with reasons

Thirty people provided feedback from round 1. The scoring of the Ministry indicators is shown below:



Most people had a preference for a small number of indicators (median 7, mean 8):



Two indicators stood out as preferred deletions. Twenty two responders nominated ESR ordering rates for deletion and 11 nominated the trimethoprim to cotrimoxazole dispensing ratio. The commonest nominated additions were for documented CVD risk assessment (7) and for evidence of disease coding (6), with no other suggestions being made by more than 2 responders.

The main theme of the written feedback was that the idea of building a consensus using a Delphi (or similar process) was ill-advised or at best premature. There was a view that specific criteria should have been agreed first and indicators decided with reference to these. Some people felt that only "evidence based" indicators should be considered, while others felt that the key criterion should be that PHOs accepted indicators as valid measures of their performance.

Second Round

The second round was a ranking exercise. All people that had participated in the first round received feedback consisting of graphical displays of the responses to the four questions, and a summary of written feedback. Discussion threads were started on the website on all the issues that had been raised. Participants were asked to consider the feedback, and to read and, if they wished, participate in discussion groups.

After 1 week, the 30 participants were given a table that listed the Ministry indicators in average score order (i.e. the highest scoring indicator, percentage of children aged 2 fully up to date with immunisations, was first in the list), followed by a complete list of all suggested additions, in order of popularity. Participants were asked to rank these 36 items from 1 to 36. Instructions were given that un-ranked items would be given the average of the un-allocated ranks.

The table on the following page shows the results of this exercise, displayed in order of the sum of ranks assigned.

Indicators in order of summed scores of ranks (lowest score possible = 30)

Rank	Indicator	Score
1	Children fully vaccinated by second birthday	40
2	Rate of adults with smoking status recorded	101
3	Influenza immunisations in the elderly	130
4	Diabetes case detection rate	150
5	CVD risk recorded	155
6	Cervical smear recorded in the past three years	169.5
7	Information – ethnicity data collection	180.5
8	Diabetes patients with microalbuminuria on ACE inhibitor	224.5
9	Access - high need groups	231.5
10	Information - NHI data collection	238
11	Disease coding for high priority areas	243.5
12	Breast screening	255.5
13	Statins for primary and secondary prevention	309
14	Access – all enrolees	338.5
15	Bronchodilators to inhaled steroids	349
16	Ambulatory sensitive hospitalisations	358
17	BMI	377
18	Consumer satisfaction – from consumer satisfaction surveys.	390.5
19	participation in quality improvement, prof development	403.5
20	% get attended with 48hrs of phone call to PHO	411.5
21	% by demographic bands that have multiple medications	420.5
22	clinical governance - process for managing "sig events"	423
23	Child abuse or intentional child injury	423.5
24	Physical activity	425
25	CVD managed according to guidelines	427.5
26	Meningococcal vaccination	432
27	Cephalosporins to Penicillins	441
28	Oral health	441.5
29	chronic mental illness	443.5
30	Trimethoprim to Cotrimoxazole	458.5
31	information continuity	460.5
32	quality teamwork	462.5
33	youth suicide rates	477.5
34	detailed information recorded	478.5
35	cancer rates	501.5
36	Erythrocyte Sedimentation Rate (ESR).	523

In this second round commentary on any aspect of the process and on specific indicators was invited. The most common written feedback was that there seemed little point including measures of services volumes (“Access” measures) or of demographic data completeness (ethnicity and NHI recording rates) in the clinical performance indicator set, as these were contractually required anyway.

Third round

Based on the feedback from the first and second round it was decided to test the proposal that we settle on 10 indicators, excluding the 4 that were contractually required. This would have meant including all indicators up to and including number 14 in the preceding table. The facilitators also decided to test whether the Group would agree to a number of specific changes that would make the set more balanced in terms of covering priority areas in the NZ Health Strategy, specifically including mental health measures and including the PHO rate of ambulatory sensitive hospitalisations in place of the statin prescribing measure.

Fifteen of the 18 responders to the second round replied to this third round, with the following results :

I can live with:		% agree
Suggestion 1	14 indicators = 10 + 4 contractual	80% (12/15)
Suggestion 2	Replace second CVD indicator (use of statins for prevention) with Ambulatory Sensitive Hospitalisations.	40% (6/15)
Suggestion 3	Disease coding indicator must include mental health.	79% (11/14)

Two people disagreed with "10 + 4" being of the view that that would be too many indicators, particularly as the Group had expressed a preference for 5 or fewer indicators. One person disagreed because specific indicators (e.g. child abuse rates) were not included. Most people however were happy with Suggestion 1, although a number of caveats were mentioned.

A number of people commented that they would need more detail on how specific indicators would be calculated before they could "sign off" on Suggestion 1 or agree with Suggestion 3. The commentary provided around Suggestion 2 was generally supportive of keeping the "statins for prevention" measurement as the use of statins was considered to be heavily evidenced based (secondary prevention of CVD in people with IHD, and for primary prevention in people with diabetes). In addition, the impact of factors other the quality of PHO clinical care on Ambulatory Sensitive Hospitalisation rates was considered too strong for this to be a reliable, or fair, PHO clinical performance indicator.

This round also asked for views on two operational issues. The first was whether work should commence with PMS vendors making modifications to PMS to collect data if not already available. Respondents were equally for and against this suggestion. Those opposed felt it would be prudent to get more experience with indicators before embarking on this course. The second was how expected rates of diseases should be calculated if a disease coding indicator was included. The majority view was that a prediction should be used (rather than use providers prescribing records), but only if a valid model was available.

Discussion

A considerable amount of feedback was collected during the 3 rounds of the Delphi process. The following provides a description of the key themes of the feedback.

Deficiencies with the process

Some invitees from the initial list of 85 replied saying that they did not wish to be involved in a process that was outside other more rigorous indicator development initiatives, or that they felt was not sufficiently well defined in terms of criteria. There was some discussion on this point on the web site, and it was raised in each round of written feedback. Although it was recognised that the August meeting had set explicit criteria for indicator selection these were either not accepted, or regarded as insufficiently precise.

A letter to one of the facilitators from a group of key stakeholders is attached that articulates this view, and other concerns (appendix 2).

Representation

The representative nature of the group was questioned. The group consisted of range of different types of participant – members of IPAs with an interest or specific role in quality measurement, DHB primary care and public health specialists, and representatives of sector organisations. However there was no formal attempt to achieve a representative group. Members were self selecting by virtue of their continued provision of responses to feedback requests. Considerable attrition was observed over the course of the process. Thirty people entered the Delphi process, but this had fallen to 15 at the end of round 3.

Lack of indicator definition

As new indicators were added to the list (in round 2) some people expressed concern that, although definitions were provided for each of the 16 Ministry indicators, some of the new indicators were not defined well enough to be considered for inclusion. This applied, for example, to the disease coding indicator, in particular the suggestion that this include a "mental health indicator".

Lack of policy context

It was felt by some participants that it was not possible to decide on a set of indicators until their role in the overall policy environment had been determined. It was assumed that there would be a number of other measures of quality besides clinical performance indicators in a PHO quality measurement system, including, for example, client satisfaction. However without knowing exactly what these would be, or the areas that they might cover, it was difficult to decide what should be in the clinical performance set, as there are areas of overlap in the different quality domains.

This concern also extended to operational issues including whether data sources would be available or if providers would be funded for collecting extra information. It was pointed out

that unless data collection was zero cost, or adequately funded if extra data collection was required, it would be naïve to expect unqualified provider agreement to extra workloads.

Recommendation

Taking into account the quantitative and written feedback 80% of the group would agree with the following set of indicators being used. Some respondents were concerned about possible increases in practice workload that would result from any requirement to collect new data, believing that any additional work should be fully funded, and that training should be provided. Where details of indicator construction were missing in earlier rounds they have been supplied.

Recommended indicators

The set below differs from the Ministry set in that CVD risk assessment has been added to the list, disease coding has been added as standalone indicator that includes at least diabetes, asthma, IHD and specified mental health diagnoses, and appropriate statin prescribing rates are included. Prescribing indicators and ESR ordering rates have been removed. Three have been added, one subsumed (diabetes case detection rate) and four dropped, reducing 16 indicators to 14, five of which are required contractually or constructed nationally in any case (ASH).

Rank	Indicator
	From PHO data sources
1	Children fully vaccinated by second birthday
2	Rate of adults with smoking status recorded
3	Influenza immunisations in the elderly
4	Disease coding for diabetes, asthma, IHD and mental health
5	CVD risk recorded
6	Cervical smear recorded in the past three years
7	Diabetes patients with microalbuminuria on ACE inhibitor
8	Breast screening
9	Statins for primary and secondary prevention
	Supplied from register audit and national data sources
1	Information – NHI data collection
2	Information – ethnicity data collection
3	Access – high need groups
4	Access – all enrolees
5	Ambulatory sensitive hospitalisations

Construction of indicators

This should be done as described in the original Ministry proposal for the indicators in that set.

Indicator 4 should be constructed by agreeing to use the RNZCGP code sets for each condition as the preferred codes, agreeing on the mental health conditions (at least

depression), then using existing models (including recent MaGPie study data in the case of mental health) to set expected numbers of people with each diagnosis.

Feedback from the group was that indicator 5 can be derived directly for PMS data. The recording of CVD risk is best practice and requires the collection of lipid profile, BP, DM, smoking, age and gender data. The NZGG CVD project group recommends the following two indicators (draft report to be released), and we would suggest that these provide indicators 4 and 9:

Indicator 4

The proportion of men aged 45 and above and women aged 55 and above who have had their 5 year absolute CVD risk recorded (by ethnicity)

Numerator

Enrolled Men aged 45 and above and women aged 55 and above who have had their five year risk recorded

Denominator

Enrolled Men aged 45 and above and women aged 55 and above in the PHO

Indicator 9

The proportion of people who have a 5 year absolute CVD risk of 15% and above who have been prescribed a statin (by ethnicity)

Numerator

Enrolled people with a CVD risk of 15% and above who have been prescribed a statin

Denominator

All enrolled people with a CVD risk of 15% and above
By ethnicity, age and gender

Targets

We have not attempted to set targets for these indicators. These are naturally a matter of negotiation between DHBs and PHOs, although it would be expected that the Ministry would provide some guidance as to appropriate levels.

Ambulatory Sensitive Hospitalisations

The Group had strong reservations about this indicator being used in any funding model as it was considered to be outside the control of primary care to a large extent, depending not only on the quality of clinical care provided but also upon the resources available to the provider

(for example diagnostic and secondary treatment services) and being heavily confounded by other determinants of health status.

Nevertheless there was recognition that it could reflect improved clinical performance at the PHO level, and that it was potentially useful to start monitoring and feeding back this data to PHO as a high level population health indicator.

Conclusion

While there were clear misgivings about the lack of rigorous criteria and definitions around clinical performance indicators there was considerable agreement on the indicators that should be included in such a set. Eighty percent of the final group of 15 people that participated in the three rounds of the Delphi process would be happy to trial the set proposed above.

Appendix 1 – Ministry draft set of indicators

The suggested indicators are as follows:

1. **Children fully vaccinated by second birthday.**
   Numerator: total number of children who turned two in the reporting period and had received all immunisations from the National Childhood Immunisation Schedule due at 6 weeks, 3 months, 5 months and 15 months.
   Denominator: number of enrolled 2 year olds as at end of reporting period.
   Proposed data source: annual report from each PHO.

2. **Diabetes case detection rate.**
   Numerator: number of individuals on a diabetes register.
   Denominator: calculated number of expected diabetics in the enrolled population (number to be provided by the Ministry of Health).
   Proposed data source: Patient Management System. It is proposed that diabetes status (i.e., whether a person is on the PHO's diabetes register) be added to the mandatory patient register data fields.

3. **Diabetes patients with microalbuminuria on ACE inhibitor.** Numerator: the number of persons with diabetes who have microalbuminuria (Alb:creat ratio >3) and who are prescribed an ACE inhibitor (or A2 agonist in the event people cannot tolerate an ACE inhibitor).
   Denominator: the number of enrolled persons with a laboratory test for microalbuminurea each year.
   Proposed data source: PHO diabetes register.

4. **Influenza immunisations in the elderly.**
   Numerator: number of adults over 64 years who have received an influenza vaccination for the previous winter.
   Denominator: number of enrolled adults over 64 years.
   Proposed data source: HealthPAC

5. **Breast screening.**
   Numerator: the percentage of women aged 50 – 64 who have attended breast cancer screening in any facility (BreastScreen Aotearoa, public hospital or private) within the previous 24 months.
   Denominator: enrolled women aged 50 – 64 years.
   Proposed data source: Either the BreastScreen database or the Patient Management System.

6. **The percentage of women aged 20 – 69 years who have had a cervical smear recorded in the past three years.**
   Numerator: number of women (20 – 69) who have a record of a cervical smear.
   Denominator: number of enrolled women (20 – 69).
   Proposed data source: the Laboratory Warehouse. (Maori Health Directorate to advise on the protection of Maori data.)

7. **Rate of adults with smoking status recorded.**
   Numerator: number of individuals over 14 years with a record of smoking status.
   Denominator: number of enrolled individuals over 14 years.
   Proposed data source: Patient Management System. It is proposed that smoking status be added to the mandatory patient register data fields.

8. **Bronchodilators to inhaled steroids.**
   The ratio of bronchodilator prescriptions to inhaled steroid prescriptions.
   Proposed data source: Patient Management System if based on drugs prescribed; the Pharmhouse if based on drugs dispensed

9. **Cephalosporins to Penicillins.**
   The ratio of Cephalosporin prescriptions to Penicillin prescriptions.
   Proposed data source: Patient Management System if based on drugs prescribed; the Pharmhouse if based on drugs dispensed.

10. **Trimethoprim to Cotrimoxazole.**
    The ratio of Trimethoprim prescriptions to Cotrimoxazole prescriptions.
    Proposed data source: Patient Management System if based on drugs prescribed; the Pharmhouse if based on drugs dispensed.

11. **Erythrocyte Sedimentation Rate (ESR).**
    Numerator: number of ESR tests performed in previous 12 months
    Denominator: number of enrolled individuals
    Proposed data source: Lab Warehouse

12. **Ambulatory sensitive hospitalisations.**
    All ambulatory sensitive hospitalisations collected.
    Proposed data source: the New Zealand Health Information Service and the PHO register (age standardised).

13. **Access – all enrolees.**
    Numerator: the percentage of enrolled individuals (all ages) seen in the previous twelve months.
    Denominator: number of enrolled individuals (all ages – age standardised).
    Proposed data source: PHO register submitted to HealthPAC on a quarterly basis.

14. **Access - high need groups.**
    Numerator: the number of annual GP/other health professional consultations by Maori, Pacific Island, decile 9 and 10.
    Denominator: number of enrolled Maori, Pacific Island, decile 9 and 10.
    Proposed data source: quarterly PHO reports recorded in CMS and PHO enrolment database.

15. **Information – ethnicity data collection.**
    Numerator: number of persons whose ethnicity is other than 'not stated'.
    Denominator: the number of enrolled persons.

Proposed data source: PHO enrolment database.

16. **Information - NHI data collection.**
Numerator: the number of persons who have an NHI (after data cleansing by NZHIS).
Denominator: the number of enrolled persons.
Proposed data source: PHO enrolment database.

Appendix 2 – Letter from Procare Quality Committee

(reproduced by permission)

Dear Barry,

Re CPIs and the DELPHI process

We have become increasingly concerned with the process and procedures surrounding the development of CPIs for PHOs, within the New Zealand Primary Health sector.

The DELPHI process that has been employed, for this purpose, has the potential to alienate stakeholders. We consider that consensus methods of decision making, such as DELPHI, are an ineffective approach in this exercise, since innovative and original contributions are unlikely to arise. Jones and Hunter, who have appraised consensus methods, share this view. They suggest such methods should be regarded more as methods for structuring group communication on a question, than as a means for providing definitive answers and note that consensus methods, in particular DELPHI, have been described as methods of "last resort"[1].

As a result, we have a fear that what will emerge will not be measurable, not be validated and may not add value as a quality measurement tool. We believe what is required is a mechanism that can provide an accurate reflection of performance in the primary sector. It is also important that this serves as a motivator for providers to encourage them to achieve continuous quality improvement.

We are aware that the RNZCGP has reservations regarding the lack of appropriate criteria for selection and inclusion of CPIs. What is important, in our view, is to engage the key stakeholders (IPAs and PHOs) in the development of an agreed quality framework and then develop, from international and local evidence, agreed criteria for the selection of appropriate CPIs. We believe that this should be channeled and facilitated through IPAC, which is willing and capable of approaching this in a methodical and thorough manner, supporting the outcome of "positive buy in" from the majority of primary care teams

ProCare Health Limited has, since 1997, been developing tools for the measurement of quality including, Performance Report on Ambulatory Care (ProAC), our internal quality framework reporting system. It is based on a simplification of the HEDIS approach. We have invested considerable time, effort and energy in the ongoing development of the framework and in 2002 launched Version 2. It has been of great assistance in supporting a quality focus within the organisation and has facilitated tracking of our quality, clinical progress and performance over time. As well, we have a well-established Quality Committee with the multiple skill set and stakeholder participation needed to underpin our quality focus. The Quality Committee of ProCare consists of:

Maureen Whineray, Consumer.
David Hunter, Consumer.
Dr Tom Marshall, GP, Central Auckland.
Dr Chris Boberg, GP, North/West Auckland, (Chair).

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[1] Jones JMG, Hunter D in "Qualitative Research in Health Care", 2nd Edition, Edited by Pope C, Mays N. BMJ Books, 1999.

Dr Denis King, GP, South Auckland.
Professor Rod Jackson, Community Health, Auckland University.
Dr Jim Vause, Deputy Chair, RNZCGP.
Mark Wills, CEO, ProCare.

We see the development of sector CPI's for PHOs as being synergistic with our quality approach and experience. We are supportive of the need for development of appropriate, valid and transparent clinical performance indicators to allow longitudinal assessment of the capability and performance of the primary health organisations.

We would like to work further with yourself and the Ministry and encourage you to engage with IPAC on progressing this initiative. We look forward to your reply.

Yours sincerely

Dr Chris Boberg
Chair, Quality Committee, ProCare Health Limited

Copy:
Victor Klap, IPAC.
Claire Austin, RNZCGP.
Dr John Marwick, MoH.
Dr Jim Primrose, General Practice Advisor, MoH.