Does one size fit all? National elective operation hospital discharge rates may not be a good fit for all New Zealand district health boards

Background—In New Zealand, the Ministry of Health frequently uses national elective rates to calculate the number of operations that will be needed each year. Furthermore it uses this to advocate for an increase or decrease in the number of operations per district health board (DHB) accordingly.

The idea behind this calculation is that New Zealanders have similar needs whereby the only differences are due to age, gender, ethnicity and New Zealand deprivation (NZDep) distribution among the DHBs.

Health survey data in the year 2011/2012 clearly showed that there were huge differences between DHBs for most of the parameters investigated including smoking rates, obesity and overweight rates, physical activity rates, healthy nutrition, cholesterol and hypertensive medication use. These factors all work as risks explaining most, if not all, elective operation volumes across each DHB.

Hip and knee replacement are strongly linked in literature to obesity. In addition, these can be linked to almost all other risk factors that are explored in the health survey.

Angiograph, angioplasty, coronary bypass, cholecystitis and cataracts are linked to almost all the above risk factors. In addition, even ones which seem far away from these risk factors, such as prostate and hernias, have shown, through studies, to have a close relationship with the above risk factors.

If these risk factors have indirect, if not direct effect on the need for operations, and hence the number, and the risk factors vary extensively between DHBs, then why do all DHBs have the same national rate?

Standardising the rate by age, gender, ethnicity and NZDep will not address the issue of the discrepancy due to these risk factors.

Conclusion—Having a different elective operation rate for each DHB will be more reliable and efficient than having one national rate for all.

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References: