

**Constituency  
Arrangements for  
DHB Elections under STV**  
Consultation Document

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MANATŪ HAUORA

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## Introduction

District Health Boards (DHBs) are made up of seven elected members and up to four further members appointed by the Minister of Health. Elected members are elected every three years, in conjunction with other local authority elections. Their presence on boards is designed to bring a community perspective to board deliberations, and provide a voice that emphasises the DHB's responsibility for providing health and disability services to its resident population.

Under legislation, elected members of DHBs must be elected using the Single Transferable Voting (STV) method from 2004 onwards.<sup>1</sup> STV is a preferential form of voting in which voters rank their desired candidates in order of preference. Ten local authorities will also use STV for their elections in 2004.<sup>2</sup>

In 2001 elected board members were elected through constituencies (similar to local authority wards) under the First-Past-the-Post (FPP) system. Given that STV operates quite differently to FPP, current DHB constituency arrangements need to be re-examined. The Ministry proposes that each DHB's current constituencies be merged to create an at-large electoral structure, in which all of a DHB's voters vote for all of the board's seven elected members.

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<sup>1</sup> Clause 9A of Schedule 2 to the New Zealand Public Health and Disability Act 2000.

<sup>2</sup> The 10 local authorities using STV in 2004 are: Chatham Islands Territory, Dunedin City Council, Kaipara District Council, Kapiti Coast District Council, Marlborough District Council, Matamata–Piako District Council, Papakura District Council, Porirua City Council, Thames–Coromandel District Council, and Wellington City Council.

# Consultation

## Background

In July 2000, during the DHB establishment process, Cabinet indicated its preference for STV as the means of electing DHB board members. At that time it noted that dividing districts into multiple constituencies when there are only seven elected members per district would remove almost all the benefits of STV.<sup>3</sup>

Cabinet therefore agreed, subject to further policy and technical work being conducted by a DHB Elections Taskforce, that a constituency system should not be used in conjunction with STV, and that 'at-large' structures were preferable.<sup>4</sup> An at-large structure would see all of a DHB's voters vote for all of the board's seven elected members.

When reporting back to Cabinet, the DHB Elections Taskforce identified significant risks arising from the limited time available before October 2001 to develop the systems and processes necessary for robust STV elections. As a result, Cabinet agreed to revert to a fall-back position of holding the inaugural DHB elections under FPP, and deferring the use of STV until 2004. For the purposes of FPP, each DHB was divided into between two and five constituencies. With FPP and the constituencies in place, no final decision was taken regarding the use of at-large structures under STV.

## What are we consulting on?

Because Cabinet had made no final decision on constituency arrangements under STV, in October 2003 the Minister of Health sought guidance on the issue. As a result Cabinet confirmed its earlier position by agreeing, in principle, that at-large structures are preferable for use in electing DHB board members under STV.<sup>5</sup> This agreement was given on the basis that the Ministry of Health would consult with DHBs and local government representatives on the use of at-large structures.

**This consultation is being conducted on the basis that Cabinet considers that using at-large structures is preferable to better realise the benefits of STV, but that DHB and local government representatives' views should be sought before a final decision is made, in order to fully explore their perspectives.**

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<sup>3</sup> CAB (00) M 22/12 (3 July 2000).

<sup>4</sup> CAB (00) M 22/12 (3 July 2000).

<sup>5</sup> CAB Min (03) 35/3 (20 October 2003).

## **Seeking your views**

The Ministry invites written submissions on the issue of constituency arrangements for DHBs under STV. Submissions must be received no later than 5 pm on:

**Wednesday 19 November 2003**

Please address your submissions to:

Dr Bruce Anderson  
Manager – Governance  
Ministry of Health  
PO Box 5013  
Wellington.

Submissions can also be emailed to:

[stv\\_submissions@moh.govt.nz](mailto:stv_submissions@moh.govt.nz)

Dr Anderson is also available to answer any questions you may have directly. He can be contacted on:

04-496-2275 (during normal business hours)  
04-496-2340 (fax)  
[stv\\_submissions@moh.govt.nz](mailto:stv_submissions@moh.govt.nz)

## **What happens next?**

Submissions will be analysed and presented to Cabinet in early December 2003. A final decision on DHB constituency arrangements under STV is expected shortly thereafter.

## What is STV?

Single Transferable Voting (STV) is a system of voting in which voters rank their desired candidates in order of preference.<sup>6</sup> Candidates are deemed elected when they reach a specific level of support from voters (known as the ‘quota’). As such, it is quite different to the First-Past-the-Post (FPP) system, which was used to elect board members in 2001.

## How are votes cast?

In 2001, under FPP, voters were able to vote for one or more candidates, depending on the number of members their constituency elected to the board. Under STV, voters are able to express their preferences for as many candidates as they wish.

When casting a vote, voters write a ‘1’ beside the candidate they most prefer, a ‘2’ beside the candidate they next prefer, and so on. Voters may rank as many or as few candidates as they wish: their vote will be valid as long as a ‘1’ appears on it and the preferences that follow are in order.

While final formats for voting documents have yet to be approved by the Secretary for Local Government, an STV voting document may look something like that shown in Figure 1.

**Figure 1:** Sample voting document

SOMEWHERE DISTRICT HEALTH BOARD	
ELECTION OF TWO (2) MEMBERS FOR THE WESTERN CONSTITUENCY	
<b>NOTE: THIS IS AN STV ELECTION</b>	
1. Please rank the candidates in order of preference (ie, ‘1’, ‘2’, ‘3’ etc) by clearly writing a ‘1’ within the box immediately after the name of the candidate you most prefer, a ‘2’ within the box immediately after the name of your second most preferred candidate, and so on.	
2. You can rank <b>as many or as few candidates as you wish</b> . There are 7 candidates.	
	Number Here ↓
DATE, Daniel	3
EGGPLANT, Etevisé	2
BANANA, Belinda	
APPLE, Anaru	1
CARROT, Christine	4
FIG, Fiona	5
GRAPE, Gerald	

<sup>6</sup> Provisions defining and governing STV appear within the Local Electoral Act 2001.

## How does the quota work?

Candidates must attain a quota of valid votes (or, where the election is to fill a single vacancy, an absolute majority of valid votes) in order to be elected. The quota is determined as follows<sup>7</sup>:

$$\text{quota} = \frac{\text{number of valid votes}}{\text{number of vacancies} + 1} + 0.000000001$$

The quota is constructed this way to ensure that only the required number of candidates are elected. For example, when just one vacancy is being filled, a candidate needs slightly more than half the votes to be assured of election. If a candidate has more than half the votes, then no other candidates can have as many votes.

Similarly, if two vacancies are being filled, then any candidate with more than one-third of the votes remaining in the count ought to be assured of election. This is on the basis that there can be at most one other candidate (who can fill the other vacancy) who will receive as many votes.

As an example, in an election with 10,000 valid votes cast and three vacancies to fill, the quota would be:

$$\begin{aligned} \text{quota} &= \frac{\text{number of valid votes}}{\text{number of vacancies} + 1} + 0.000000001 \\ &= \frac{10,000}{3 + 1} + 0.000000001 \\ &= 2500.000000001 \end{aligned}$$

Therefore, based on an election with the above figures, candidates would need to receive just over 2500 votes to be elected.

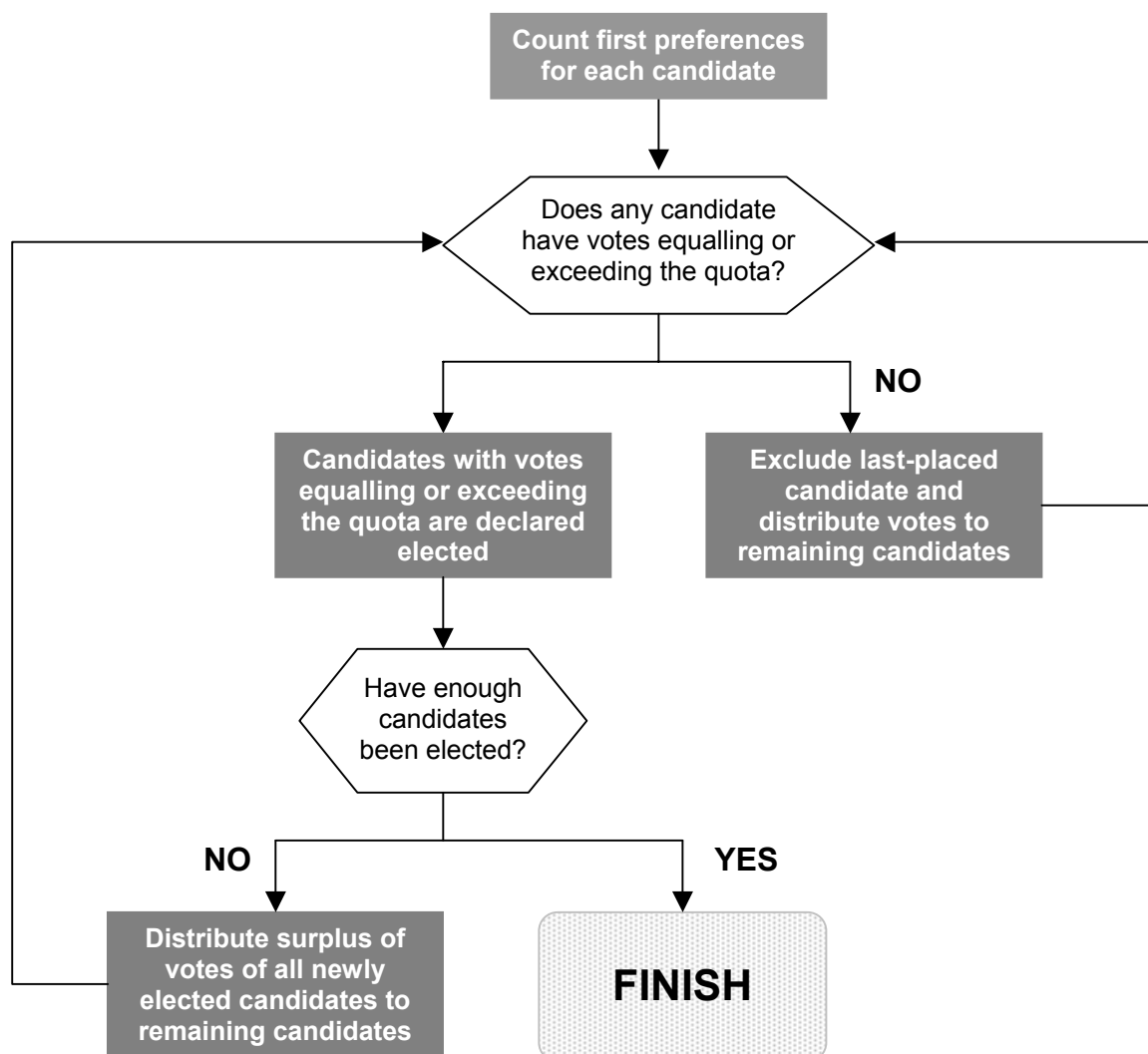
## How are votes counted?

The Department of Internal Affairs has developed computer software which counts STV vote preferences. This software will be used by DHB electoral officers to calculate the election results. The process for counting vote preferences under STV (as performed by the calculation software) is shown in Figure 2.

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<sup>7</sup> The billionth of a vote (0.000000001) is added to prevent the possibility of more candidates than there are vacancies ending up with the exact quota (ie, to prevent a tie).

**Figure 2:** Procedure for counting STV vote preferences



This iterative approach to vote counting means that candidates with enough support to be elected do not retain more votes than is necessary for their election. Rather, the excess votes they achieved are redistributed, in order of voter preference, in order to help elect other candidates.

At the other end of the scale, where no candidate has sufficient support to achieve the quota, the least popular candidate is removed from the count and, again, their votes are used to assist others in being elected. This is done on the basis that it is impossible for that candidate to be elected, even if all the remaining votes were transferred to them.

### Further information

More information on STV can be found at the Department of Internal Affairs' STV website: <http://www.stv.govt.nz>

## Maximising the benefits of STV

STV tends to deliver results that better reflect the interests of an area's resident population.<sup>8</sup> The potential for more balanced representation tends to increase as the number of members elected from each electoral area increases.

Because of this, STV elections in other jurisdictions tend to be organised so that between three and seven members are elected from each electoral area (Farrell et al 1996).<sup>9</sup> For example, the whole of Northern Ireland is one constituency for the purposes of European Union elections and elects three members, as a province, to the European Parliament.

Therefore, because only 18 of the 76 current DHB constituencies elect three or more members, at-large structures (where seven members would be elected together) are seen as having more potential to achieve the benefits that STV can bring.

### What does 'at-large' mean?

Under an at-large structure, each DHB's current constituencies would be merged to create one district-wide constituency. Through at-large structures under STV, DHB voters would be able to influence the final composition of the board a great deal more than under current arrangements, because their votes would contribute to electing all seven elected board members, not just one or two as in the majority of current constituencies.

### How many votes do candidates need to be elected?

The number of votes required for election under STV is determined by the quota (see above). Under an at-large structure in the DHB environment, and assuming the election of seven members, candidates would need to receive just over 12.5 percent of the vote (from all the district's voters) to be elected to the board.

Indicative figures for each DHB are given in the Appendix.<sup>10</sup> These figures provide electoral data from the 2001 elections, give indicative demographic data (based on 2001 Census information) and show what each DHB may look like under an at-large structure.

### Potential benefits of adopting at-large structures

In the STV environment, at-large structures have the potential to provide a number of advantages over current DHB constituency arrangements. These advantages include:

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<sup>8</sup> Realising this potential is dependent on broad participation of these interests as both candidates and voters, and voters expressing a high proportion of preferences on their voting documents.

<sup>9</sup> Taagepera and Shugart (1989, cited in Farrell et al 1996) determined that the number of vacancies in each electoral district should be at least five, to assist in achieving a proportional result.

<sup>10</sup> It is important to note that the data shown in the Appendix are only indicative of any final result: voter demographics have been estimated as they are not recorded during elections, voter turnout can increase or decrease from election to election, and the actual STV quota will vary significantly depending on the number of valid votes cast in each electoral area.

- the potential for improving Māori and minority group representation on boards
- the potential for greater choice and flexibility for voters
- encouraging an environment of collective responsibility at the board table
- equalising levels of representation across each district.

## **Potential for improving Māori and minority group representation**

The effect of constituencies on Māori and minority group representation was seen at the 2001 DHB elections. Only a very small number of Māori candidates was elected (even though close to 130 stood as candidates) and no candidates who described themselves as being of Pacific or Asian origins were elected to boards.<sup>11</sup>

If STV elections were held under current constituency arrangements, the low levels of elected Māori and minority representation on DHB boards would probably continue. This is because in a one-member constituency a candidate would require just over 50 percent of the votes to cross the STV quota and be elected. In a two-member constituency a candidate would need to get just over one-third of the votes in order to be elected.

In 2001, constituencies effectively divided Māori and minority groups in many DHBs. These groups did not have sufficient ‘voter mass’ to achieve the higher numbers of votes typically required under FPP, which saw their candidates go unelected in many cases.

Even if Māori and members of minority groups live in regions where they do not have enough ‘mass’ to reach the quota, under STV they are still able to give higher preferences to those candidates who indicate a willingness to support their concerns at the board table. Using the system of ranking candidates in order of preference, voters from larger ethnic groups may also wish to include Māori and minority group candidates among their higher preferences, to ensure a board with a diverse range of views is elected.

Under at-large structures the voting preferences of Māori and minority groups are more likely to be reflected in the boards’ eventual composition (to the extent that candidates and voters from these groups both stand and vote, and express a large number of preferences in their voting papers). Adopting at-large structures therefore has the potential to increase Māori participation in decision-making, which is one of the key goals of *He Korowai Oranga: Māori Health Strategy* (Minister of Health and Associate Minister of Health 2002).

## **Potential for greater choice and flexibility for voters**

At-large structures under STV also provide greater choice and flexibility to voters when making their decisions. In the majority of current DHB constituencies, voters were only able to vote for one or two candidates from the many who stood in 2001. Voters were therefore not able to express their preferences for a range of candidates, either within their own constituency or across the district as a whole.

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<sup>11</sup> Department of Internal Affairs/Ministry of Health 2001 candidate survey information.

However, under an at-large system, voters are not obliged to limit their choice to the number of vacancies their constituency elects to the board. Instead, voters can rank all candidates who stand, and give higher preferences to those candidates (from anywhere in the district) who they feel will best represent their individual concerns (whether based on geographical factors, gender, ethnicity, community profile, relevant experience or any other ground). Therefore, under at-large structures voters have a much greater power to influence the whole of the board's elected membership.

## **Encouraging an environment of collective responsibility**

Legislation clearly states that a DHB is directly responsible for its performance to the Minister of Health.<sup>12</sup> The goals and objectives outlined in the *New Zealand Health Strategy* (Minister of Health 2000) and the move to population-based funding in health similarly emphasise the need for health service delivery to be focused on the needs of the DHB's population as a whole.

At-large structures would reinforce these important principles by linking elected members to the district's entire population rather than just to specific constituencies. As a result, elected board members would not be on boards to advocate just for specific regions, but for the best health outcomes for every person in the district. This would be likely to lead, in turn, to greater co-operation and collective responsibility in the board environment.

## **Equalising levels of representation across each district**

From a representation perspective, using an at-large structure puts all board members on an equal footing by requiring each to have achieved a comparable level of support before their election to the board. This is in contrast to the present system, where different numbers of votes are needed for election in different constituencies of the same board.<sup>13</sup>

As an example, a member at one DHB in 2001 was elected to the board with around 750 votes. In another constituency of the same DHB, the highest polling unsuccessful candidate received over 3000 votes (and 28 of the 30 candidates standing in that constituency polled higher than the successful smaller constituency member).

Similarly, board members elected under the current method often represent widely different numbers of constituents in relation to other constituencies of the same DHB. Across one DHB's constituencies, the number of resident electors per board member ranges from around 12,000 to around 22,000. This means that residents of certain constituencies are statistically better represented on the board than those of others – solely by virtue of where they live.

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<sup>12</sup> Sections 37-40 of the New Zealand Public Health and Disability Act 2000.

<sup>13</sup> Notwithstanding the fact that DHB constituencies were structured to take into account specific communities of interest, some of which may be smaller in nature.

## **Disadvantages of at-large structures**

The main concerns regarding at-large structures appear to relate to the loss of guaranteed representation for specific communities at the board table. The next section highlights how such concerns are capable of being addressed.

At-large structures also raise certain practical issues for the voting process itself. DHBs with larger populations could in turn have a large number of candidates on their voting documents, which might discourage participation by overwhelming voters with extensive candidate profile material and lengthy candidate lists. Also, as the number of candidates increases, the likelihood of voters recording a larger number of preferences may well decrease. This may lower STV's effectiveness at producing election results proportionate to each district's resident population. Finally, publicity costs and canvassing efforts incurred by candidates may be larger under at-large structures.

## Ensuring local representation in at-large structures

Despite the advantages of moving to at-large structures in the DHB environment, such structures may still be perceived as removing or reducing certain communities' guaranteed voice from the board table. In practice, such concerns can be addressed in a number of ways.

### 'Voting local'

Under at-large structures, voters are still able to grant higher preferences to local candidates if they so desire. They can also give higher preferences to candidates living outside their area who are eager to advance issues of local concern.

Electors living in rural or smaller urban areas still make up a large proportion of the total number of electors in many DHBs. As candidates in an at-large DHB election would only need to attract just over 12.5 percent of the vote to reach the STV quota, rural or smaller urban area electors are still able to have a significant impact on the final make up of the board.

### Ministerial appointments

In addition to the seven elected board members, the Minister of Health is able to appoint up to a further four members to each DHB board.<sup>14</sup> Among other things, appointments are made on the basis of ensuring that a good balance of people, skills and viewpoints are present on each board. Therefore, if particular communities were not adequately represented on a board, balanced representation could be achieved through Ministerial appointments.<sup>15</sup>

### Governance structures

The board of the DHB could also address any needs for more specialised community input through its own governance structures. For example, it could ensure specific community representation on each of its existing statutory advisory committees. Similarly, specific 'community committees' could be constituted to provide fora for local voices if the board felt its community representation was unbalanced.<sup>16</sup>

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<sup>14</sup> Pursuant to section 29(1)(b) of the New Zealand Public Health and Disability Act 2000. Subsequent to the 2001 DHB elections, the Minister of Health appointed the maximum four members to each DHB.

<sup>15</sup> Subject to the requirements of section 29(4) of the New Zealand Public Health and Disability Act 2000 (that in making appointments, the Minister must endeavour to ensure that Māori representation on the board is proportional to the district's Māori population, and in any event there are at least two Māori members on each board).

<sup>16</sup> Such committees could be established pursuant to boards' general committee-making powers under clause 38 of Schedule 3 to the New Zealand Public Health and Disability Act 2000.

## Other constituency arrangements

It is possible to envisage a system where certain DHB boards are elected using constituencies, while others employ an at-large structure for elections. However, it is important to ensure that election arrangements are consistent across DHBs, so that all DHBs operate in the same governance environment. This is especially necessary with the introduction of a new voting system.

DHB constituencies themselves could also be adjusted to ensure that each constituency elects between three and seven members to the board. However, given that there are only at most seven elected members per board, this would mean that it would only be viable to have two constituencies per DHB (on the basis that STV generally works best in elections with between three and seven vacancies). In many DHBs such a division would necessarily take the form of one ‘urban’ and one ‘rural’ constituency. On the whole, board structures like this risk being perceived as artificial and as not accurately representing real geographic communities of interest within their overall boundaries. In predominately urban DHBs a meaningful division would be even more difficult to make.

## Conclusion

A move to at-large structures would be more likely to realise the anticipated benefits of STV than if present constituency arrangements remain in place. The benefits of moving to an at-large environment include the potential for improved Māori and minority group representation on boards, the potential for greater choice and flexibility for voters, encouraging an environment of collective responsibility at the board table, and equalising levels of representation across each district.

Under at-large structures, local representation on DHB boards can be achieved by a number of means:

- voters are still entitled to vote for candidates from their own specific community
- the Minister of Health is able to appoint members to ensure appropriate community representation on boards
- boards are able to boost community input through existing or additional governance structures.

Other constituency arrangements that could be used under STV (such as remaining with the status quo or reducing the number of constituencies) are less likely to realise the expected benefits of the new system. Therefore, with only seven elected board members at each DHB, boards would benefit most from the move to STV if at-large structures were introduced.

## Glossary

<b>at-large</b>	A electoral structure where all of a district's voters vote for all the elected member positions on a DHB board.
<b>constituency</b>	An electoral area, representing a community of interest, through which a set number of members are elected to a DHB board. In practice, constituencies operate similarly to council wards.
<b>DHB</b>	District Health Board: an organisation established by or under section 19 of the New Zealand Public Health and Disability Act 2000.
<b>FPP</b>	First-Past-the-Post: a method of voting in which DHB voters vote for one or more candidates, based on the number of members their constituency elects to the DHB board, and as defined in the Local Electoral Act 2001.
<b>local authority</b>	A territorial authority (ie, city or district council) or regional council. Other bodies (such as DHBs and licensing trusts) are also deemed to be local authorities for the purposes of the Local Electoral Act 2001.
<b>preferences</b>	The ordered numbers each voter marks on an STV voting document (starting at '1' and proceeding in sequence). The preferences appearing on a voting document are used to determine the order in which votes are transferred to other candidates, as required.
<b>quota</b>	The minimum number of votes a candidate must receive to be elected under STV. The quota is found by taking the number of valid votes and dividing it by the number of vacancies plus one (and adding a billionth of a vote to the figure to avoid the possibility of a tie), in accordance with the Local Electoral Act 2001.
<b>STV</b>	Single Transferable Voting: a method of voting in which voters rank candidates in order of preference, as defined in the Local Electoral Act 2001.
<b>vacancy</b>	An elected board member position on a DHB board, that position becoming 'vacant' (unoccupied) at the time of each election.
<b>valid vote</b>	A voting document which, in the case of STV, has at least a first preference clearly marked on it (ie, one not 'blank' or 'spoiled').
<b>voting document</b>	The paper on which a voter marks their votes (in the case of FPP) or numbered preferences (in the case of STV).

## References

Farrell DM, Mackerras M, McAllister I. 1996. Designing electoral institutions: STV systems and their consequences. *Political Studies* 44: 24–43.

Minister of Health. 2000. *New Zealand Health Strategy*. Wellington: Ministry of Health.

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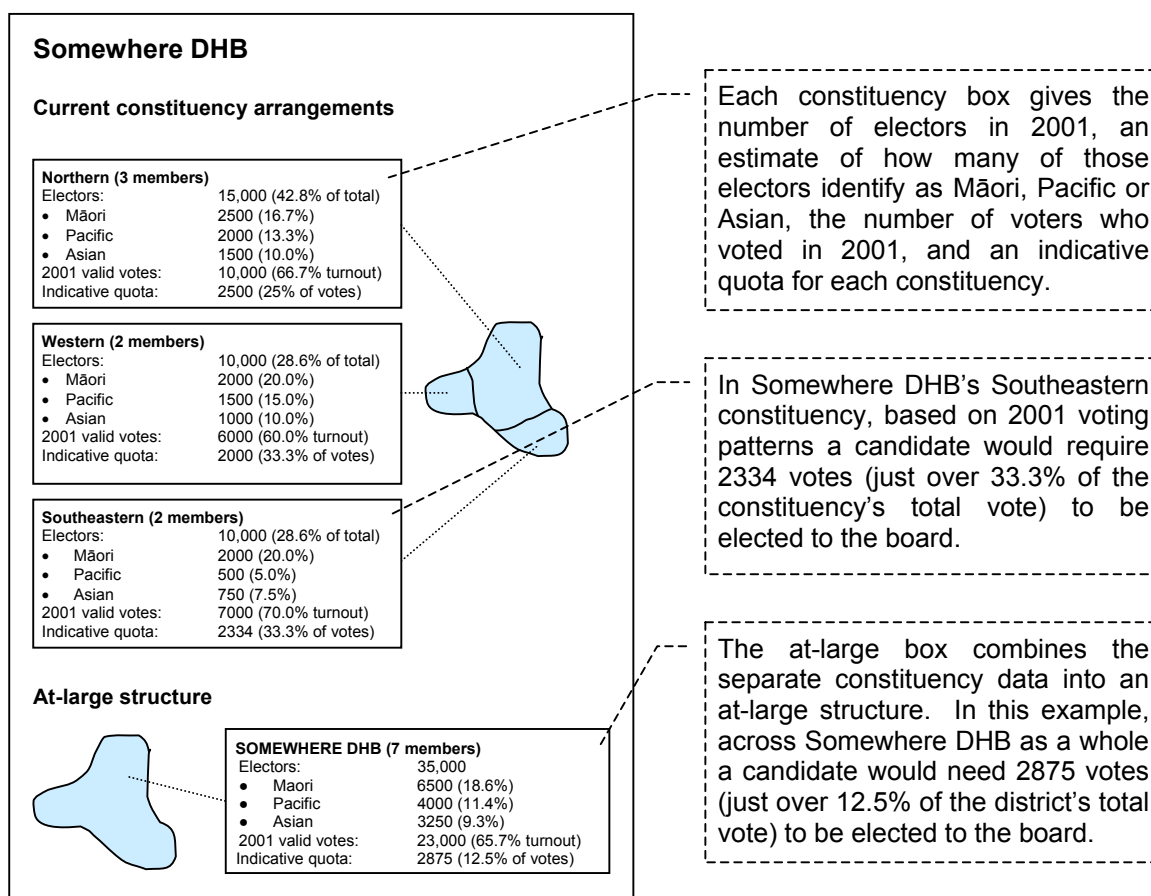
Taagepera R, Shugart MS. 1989. *Seats and Votes: The effects and determinants of electoral systems*. New Haven: Yale University Press. Cited by Farrell DM, Mackerras M, McAllister I. 1996. Designing electoral institutions: STV systems and their consequences. *Political Studies* 44: 24–43.

# Appendix: DHB electoral data and indicative quota

The following diagrams aim to show what DHB electoral arrangements may look like under STV, with both current constituency arrangements and at-large structures presented. It is important to note that the data shown are only indicative of any final result – voter demographics are not recorded during elections, voter turnout can increase or decrease from election to election, and the actual STV quota will vary significantly depending on the number of valid votes cast.

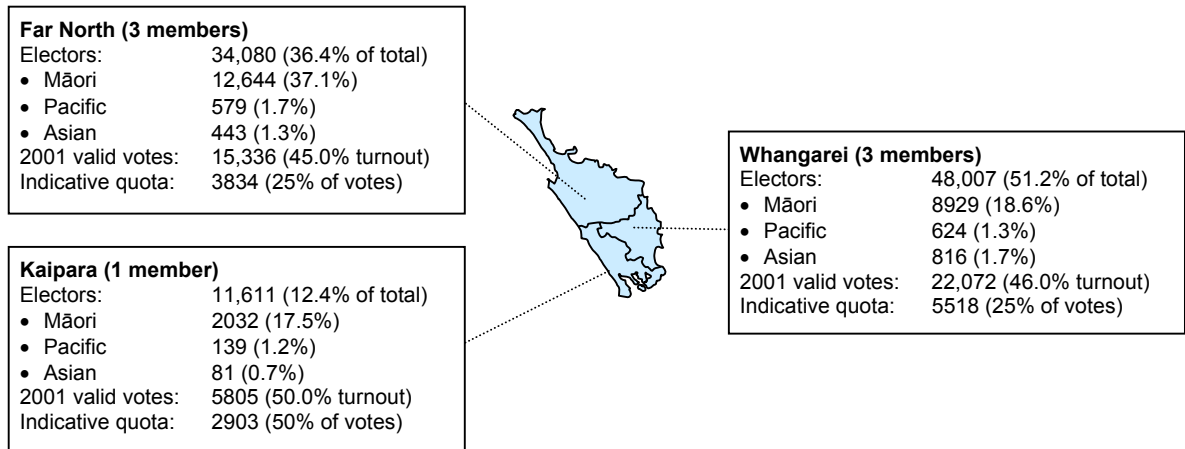
## Example – Somewhere DHB

The following example of ‘Somewhere DHB’ explains how to read the DHB-specific data contained in the Appendix.

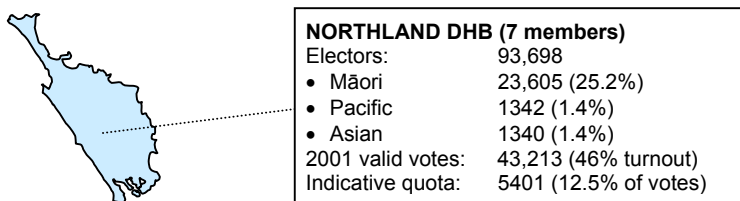


## Northland DHB

### Current constituency structure



### At-large structure

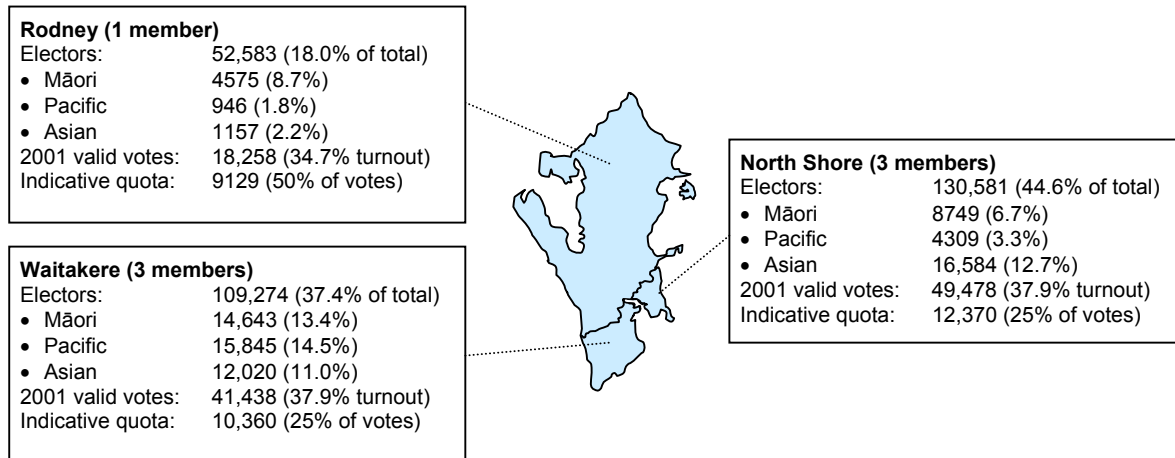


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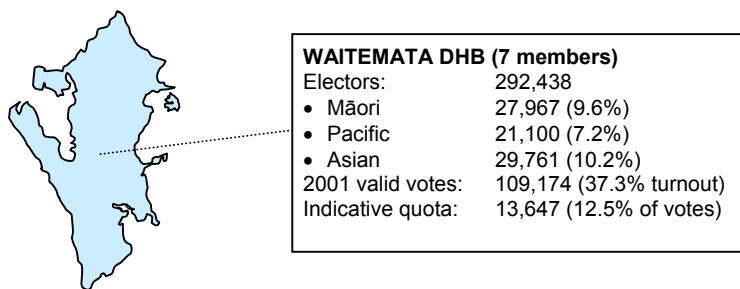
The elector and vote figures are derived from the Department of Internal Affairs' *Local Authority Election Statistics 2001*. Ethnicity data are based on 2001 Census figures and are arrived at by taking the percentage of each ethnic group aged 18 years and over in the area, then applying that percentage to the total number of electors. This assumes that persons are eligible for, and enrol on, the electoral roll in equal proportions to their ethnic group's population share. The indicative STV quota is calculated by taking the number of valid votes cast in each area in 2001, and dividing it by the number of vacancies, plus one.

# Waitemata DHB

## Current constituency structure



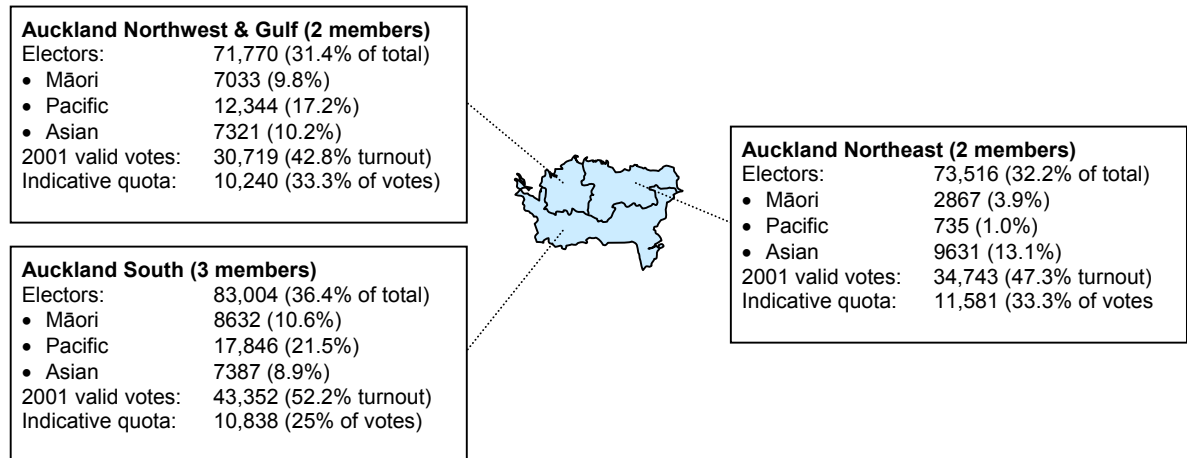
## At-large structure



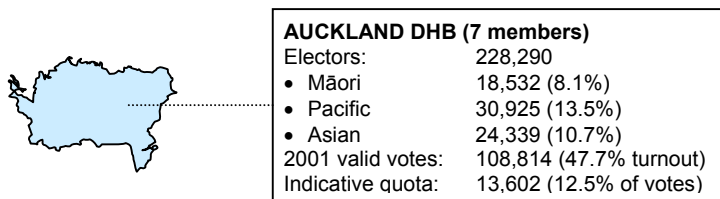
The elector and vote figures are derived from the Department of Internal Affairs' *Local Authority Election Statistics 2001*. Ethnicity data are based on 2001 Census figures and are arrived at by taking the percentage of each ethnic group aged 18 years and over in the area, then applying that percentage to the total number of electors. This assumes that persons are eligible for, and enrol on, the electoral roll in equal proportions to their ethnic group's population share. The indicative STV quota is calculated by taking the number of valid votes cast in each area in 2001, and dividing it by the number of vacancies plus one.

# Auckland DHB

## Current constituency structure



## At-large structure

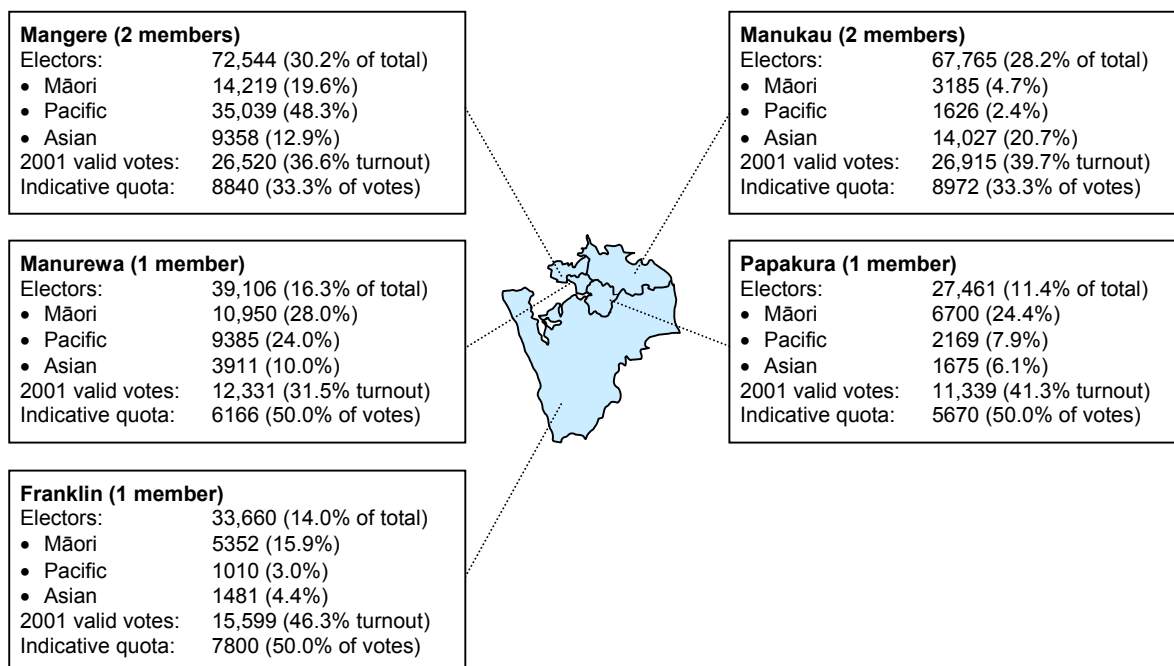


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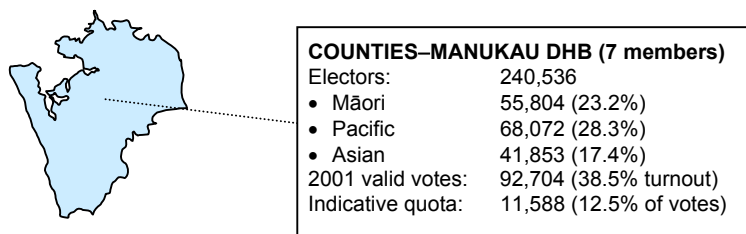
The elector and vote figures are derived from the Department of Internal Affairs' *Local Authority Election Statistics 2001*. Ethnicity data are based on 2001 Census figures and are arrived at by taking the percentage of each ethnic group aged 18 years and over in the area, then applying that percentage to the total number of electors. This assumes that persons are eligible for, and enrol on, the electoral roll in equal proportions to their ethnic group's population share. The indicative STV quota is calculated by taking the number of valid votes cast in each area in 2001, and dividing it by the number of vacancies plus one.

## Counties Manukau DHB

### Current constituency structure



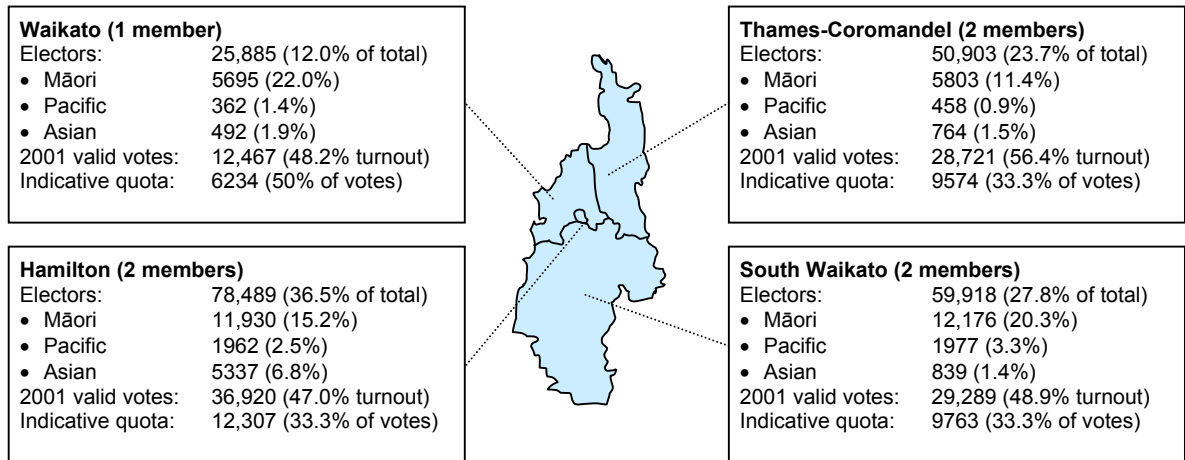
### At-large structure



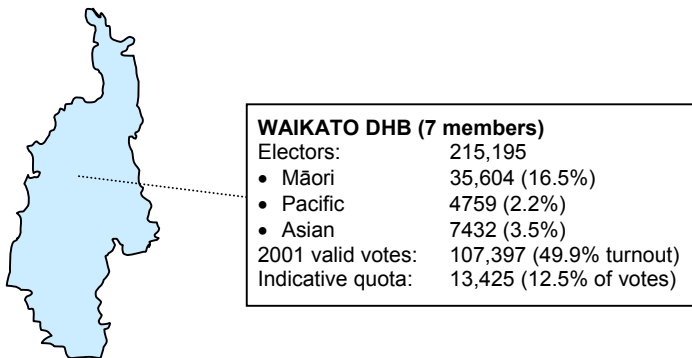
The elector and vote figures are derived from the Department of Internal Affairs' *Local Authority Election Statistics 2001*. Ethnicity data are based on 2001 Census figures and are arrived at by taking the percentage of each ethnic group aged 18 years and over in the area, then applying that percentage to the total number of electors. This assumes that persons are eligible for, and enrol on, the electoral roll in equal proportions to their ethnic group's population share. The indicative STV quota is calculated by taking the number of valid votes cast in each area in 2001, and dividing it by the number of vacancies plus one.

# Waikato DHB

## Current constituency structure



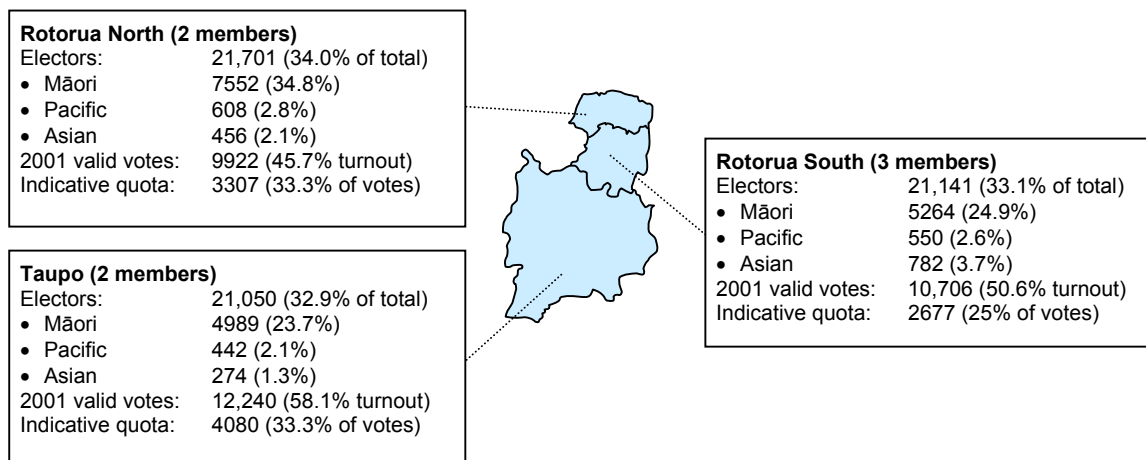
## At-large structure



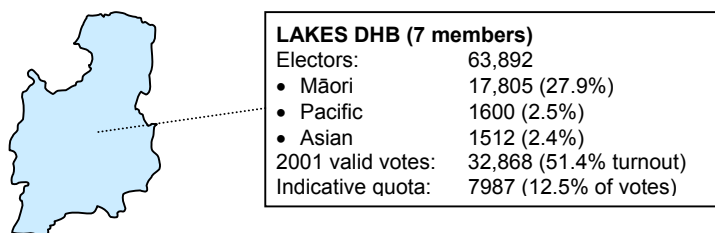
The elector and vote figures are derived from the Department of Internal Affairs' *Local Authority Election Statistics 2001*. Ethnicity data are based on 2001 Census figures and are arrived at by taking the percentage of each ethnic group aged 18 years and over in the area, then applying that percentage to the total number of electors. This assumes that persons are eligible for, and enrol on, the electoral roll in equal proportions to their ethnic group's population share. The indicative STV quota is calculated by taking the number of valid votes cast in each area in 2001, and dividing it by the number of vacancies plus one.

## Lakes DHB

### Current constituency structure



### At-large structure

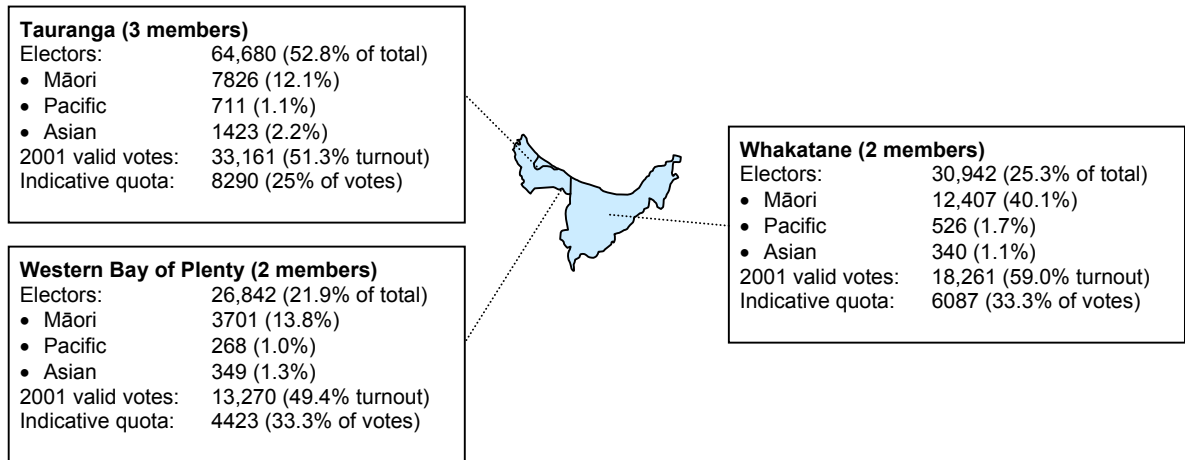


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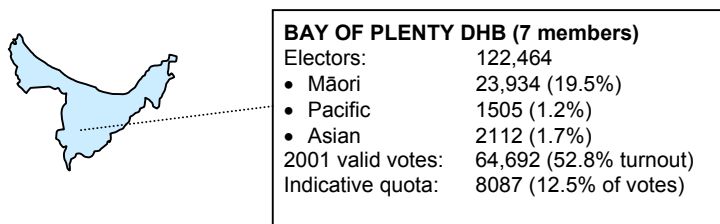
The elector and vote figures are derived from the Department of Internal Affairs' *Local Authority Election Statistics 2001*. Ethnicity data are based on 2001 Census figures and are arrived at by taking the percentage of each ethnic group aged 18 years and over in the area, then applying that percentage to the total number of electors. This assumes that persons are eligible for, and enrol on, the electoral roll in equal proportions to their ethnic group's population share. The indicative STV quota is calculated by taking the number of valid votes cast in each area in 2001, and dividing it by the number of vacancies plus one.

# Bay of Plenty DHB

## Current constituency structure



## At-large structure

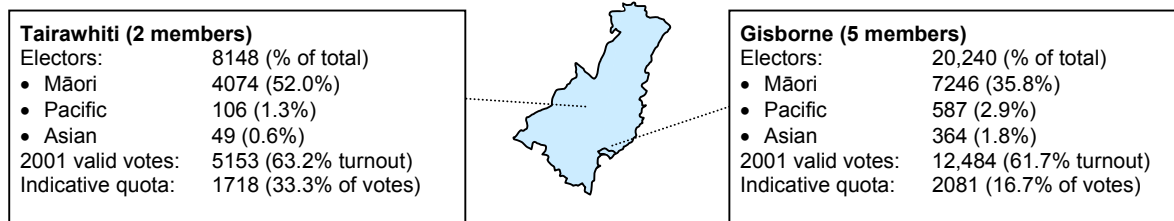


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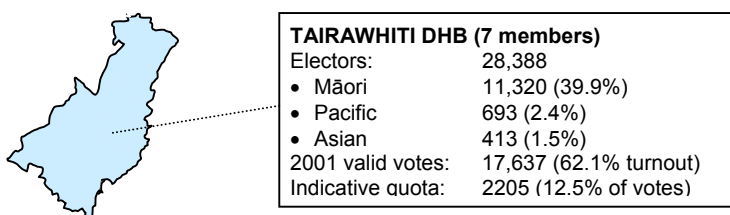
The elector and vote figures are derived from the Department of Internal Affairs' *Local Authority Election Statistics 2001*. Ethnicity data are based on 2001 Census figures and are arrived at by taking the percentage of each ethnic group aged 18 years and over in the area, then applying that percentage to the total number of electors. This assumes that persons are eligible for, and enrol on, the electoral roll in equal proportions to their ethnic group's population share. The indicative STV quota is calculated by taking the number of valid votes cast in each area in 2001, and dividing it by the number of vacancies plus one.

## Tairawhiti DHB

### Current constituency structure



### At-large structure

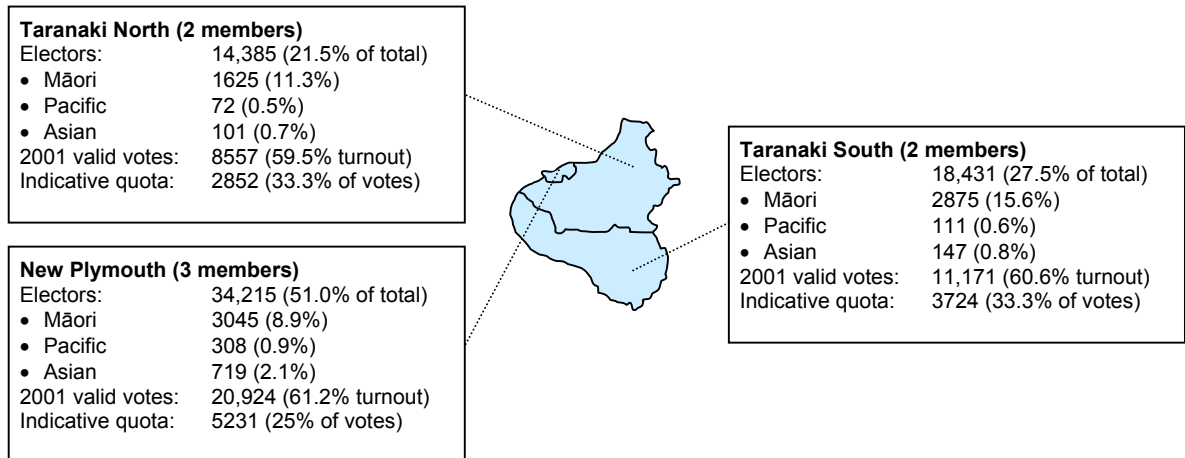


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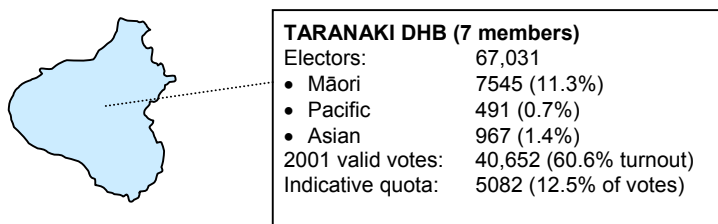
The elector and vote figures are derived from the Department of Internal Affairs' *Local Authority Election Statistics 2001*. Ethnicity data are based on 2001 Census figures and are arrived at by taking the percentage of each ethnic group aged 18 years and over in the area, then applying that percentage to the total number of electors. This assumes that persons are eligible for, and enrol on, the electoral roll in equal proportions to their ethnic group's population share. The indicative STV quota is calculated by taking the number of valid votes cast in each area in 2001, and dividing it by the number of vacancies plus one.

## Taranaki DHB

### Current constituency structure



### At-large structure

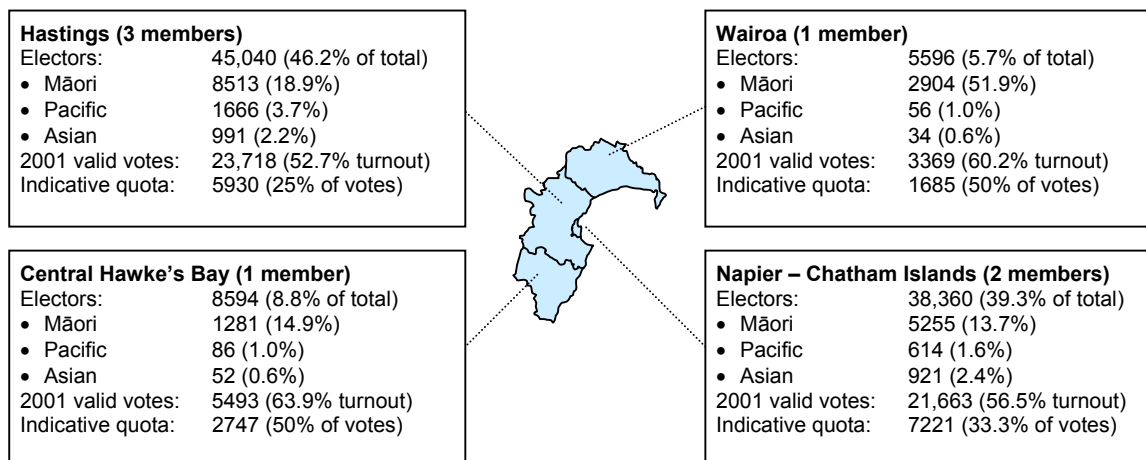


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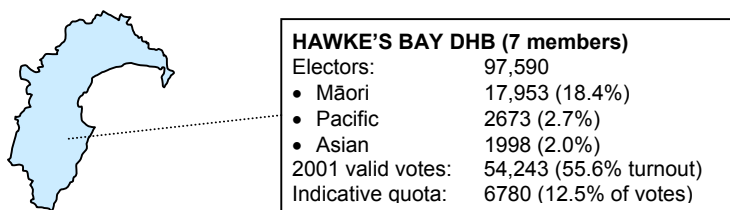
The elector and vote figures are derived from the Department of Internal Affairs' *Local Authority Election Statistics 2001*. Ethnicity data are based on 2001 Census figures and are arrived at by taking the percentage of each ethnic group aged 18 years and over in the area, then applying that percentage to the total number of electors. This assumes that persons are eligible for, and enrol on, the electoral roll in equal proportions to their ethnic group's population share. The indicative STV quota is calculated by taking the number of valid votes cast in each area in 2001, and dividing it by the number of vacancies plus one.

## Hawke's Bay DHB

### Current constituency structure



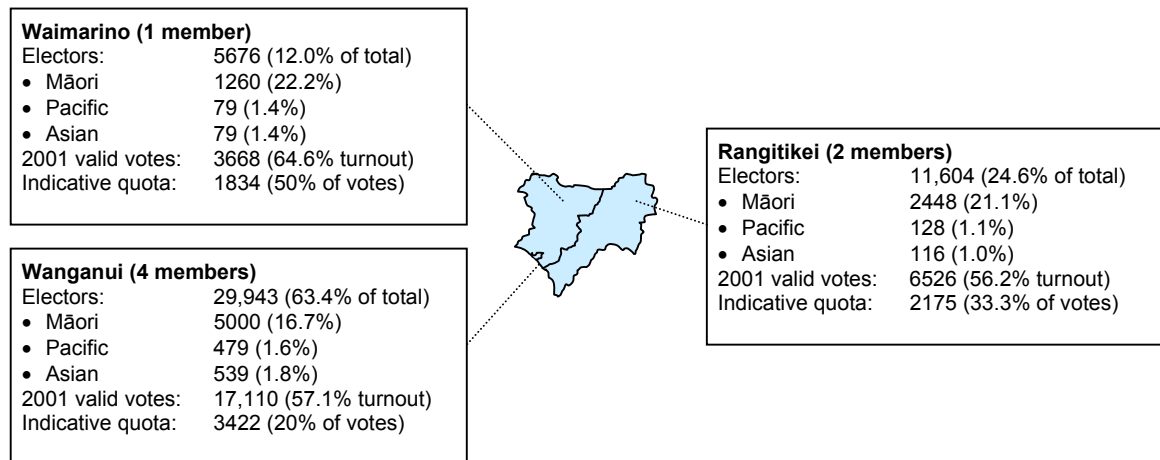
### At-large structure



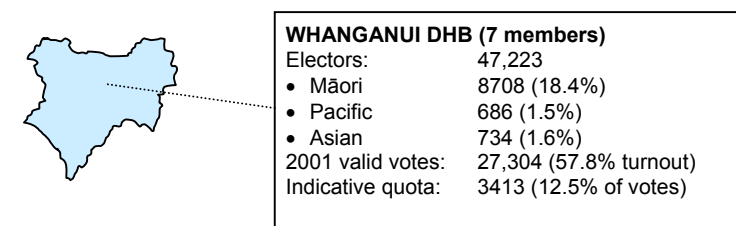
The elector and vote figures are derived from the Department of Internal Affairs' *Local Authority Election Statistics 2001*. Ethnicity data are based on 2001 Census figures and are arrived at by taking the percentage of each ethnic group aged 18 years and over in the area, then applying that percentage to the total number of electors. This assumes that persons are eligible for, and enrol on, the electoral roll in equal proportions to their ethnic group's population share. The indicative STV quota is calculated by taking the number of valid votes cast in each area in 2001, and dividing it by the number of vacancies plus one.

# Whanganui DHB

## Current constituency structure



## At-large structure

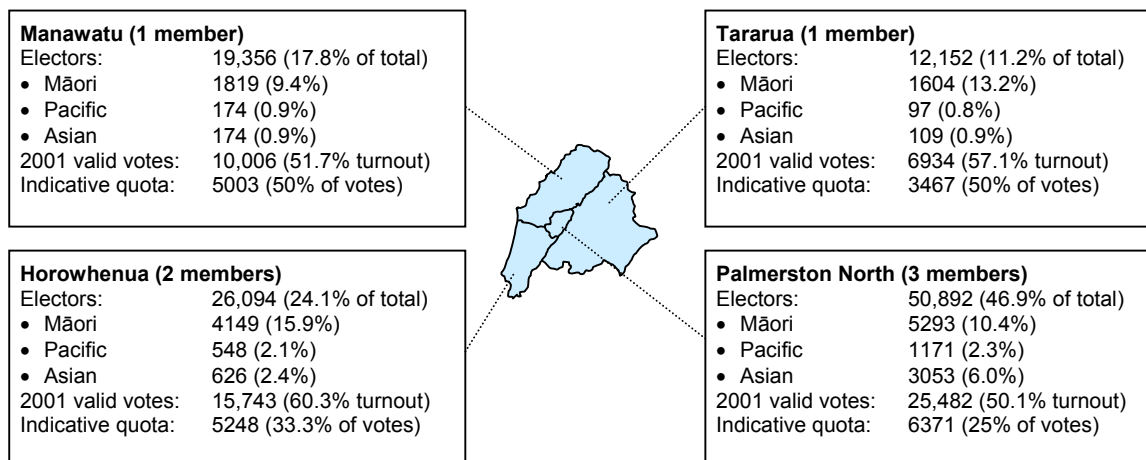


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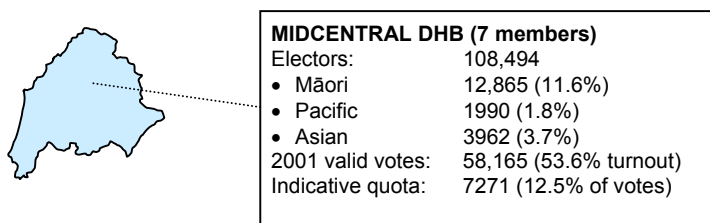
The elector and vote figures are derived from the Department of Internal Affairs' *Local Authority Election Statistics 2001*. Ethnicity data are based on 2001 Census figures and are arrived at by taking the percentage of each ethnic group aged 18 years and over in the area, then applying that percentage to the total number of electors. This assumes that persons are eligible for, and enrol on, the electoral roll in equal proportions to their ethnic group's population share. The indicative STV quota is calculated by taking the number of valid votes cast in each area in 2001, and dividing it by the number of vacancies plus one.

## MidCentral DHB

### Current constituency structure



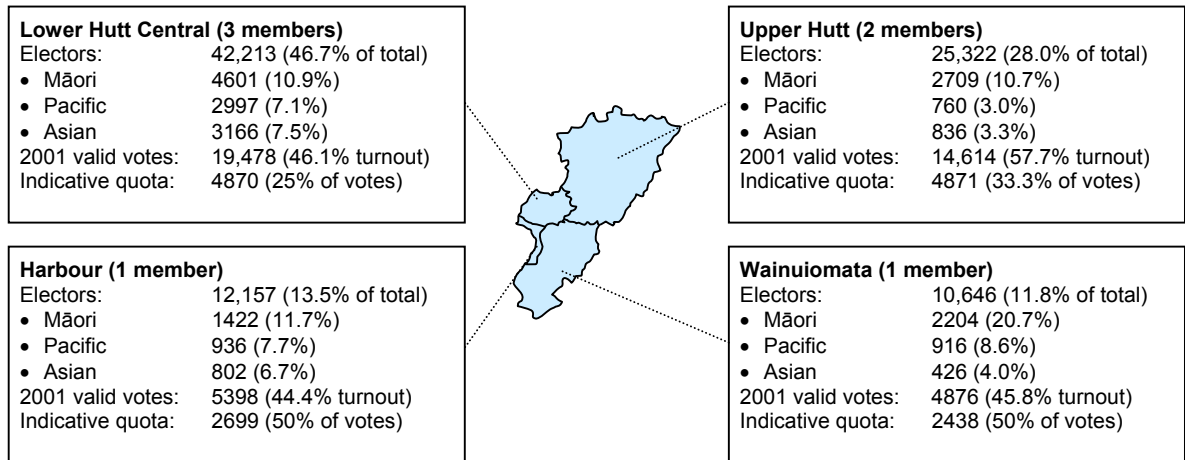
### At-large structure



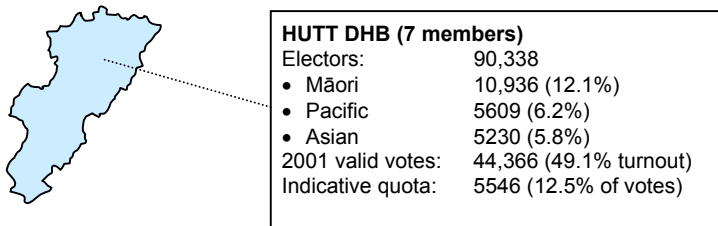
The elector and vote figures are derived from the Department of Internal Affairs' *Local Authority Election Statistics 2001*. Ethnicity data are based on 2001 Census figures and are arrived at by taking the percentage of each ethnic group aged 18 years and over in the area, then applying that percentage to the total number of electors. This assumes that persons are eligible for, and enrol on, the electoral roll in equal proportions to their ethnic group's population share. The indicative STV quota is calculated by taking the number of valid votes cast in each area in 2001, and dividing it by the number of vacancies plus one.

# Hutt DHB

## Current constituency structure



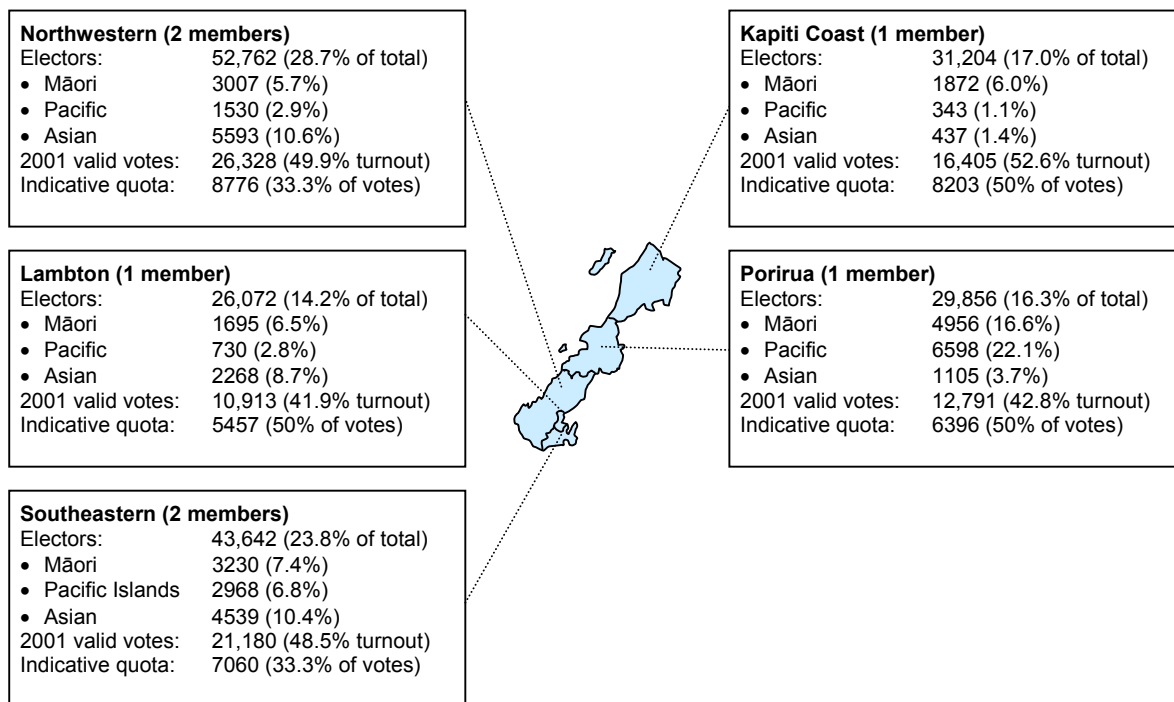
## At-large structure



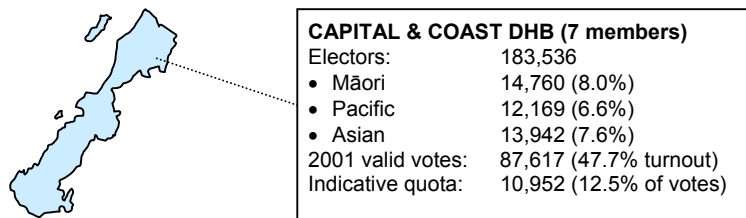
The elector and vote figures are derived from the Department of Internal Affairs' *Local Authority Election Statistics 2001*. Ethnicity data are based on 2001 Census figures and are arrived at by taking the percentage of each ethnic group aged 18 years and over in the area, then applying that percentage to the total number of electors. This assumes that persons are eligible for, and enrol on, the electoral roll in equal proportions to their ethnic group's population share. The indicative STV quota is calculated by taking the number of valid votes cast in each area in 2001, and dividing it by the number of vacancies plus one.

## Capital & Coast DHB

### Current constituency structure



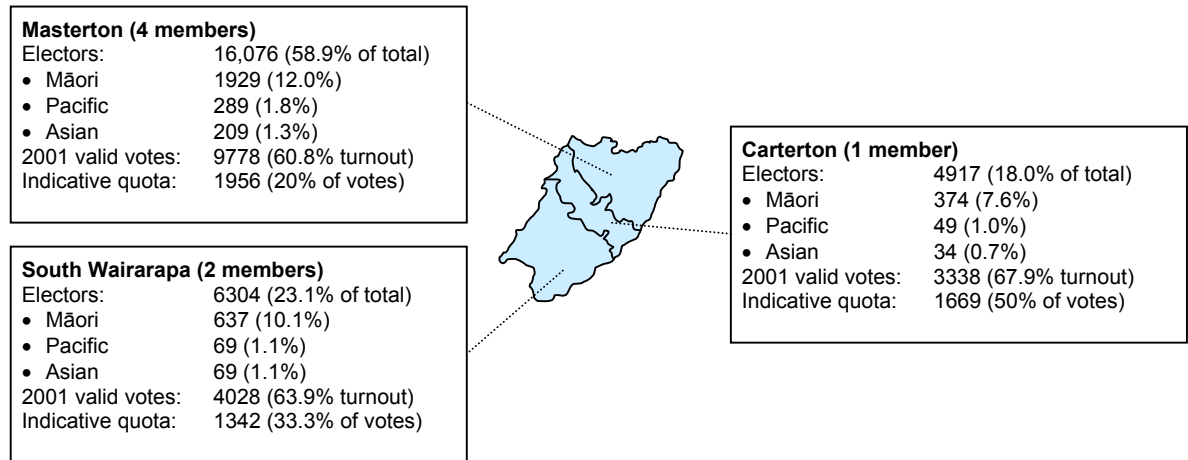
### At-large structure



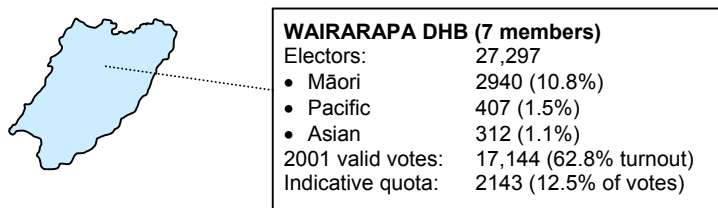
The elector and vote figures are derived from the Department of Internal Affairs' *Local Authority Election Statistics 2001*. Ethnicity data are based on 2001 Census figures and are arrived at by taking the percentage of each ethnic group aged 18 years and over in the area, then applying that percentage to the total number of electors. This assumes that persons are eligible for, and enrol on, the electoral roll in equal proportions to their ethnic group's population share. The indicative STV quota is calculated by taking the number of valid votes cast in each area in 2001, and dividing it by the number of vacancies plus one.

# Wairarapa DHB

## Current constituency structure



## At-large structure

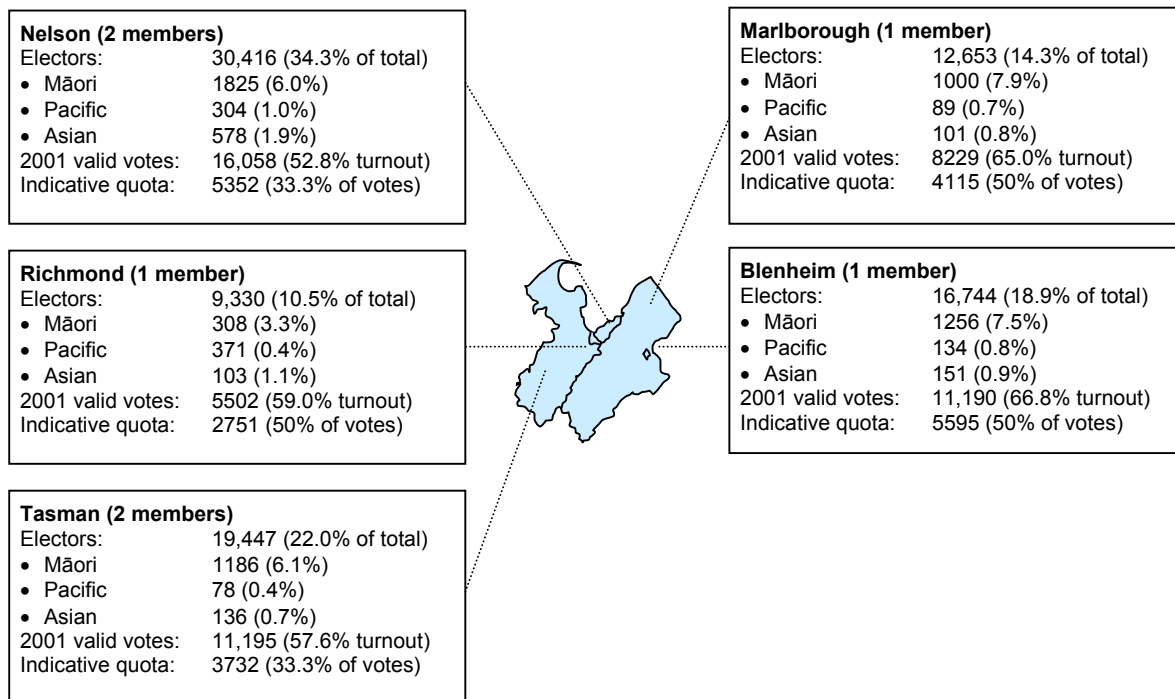


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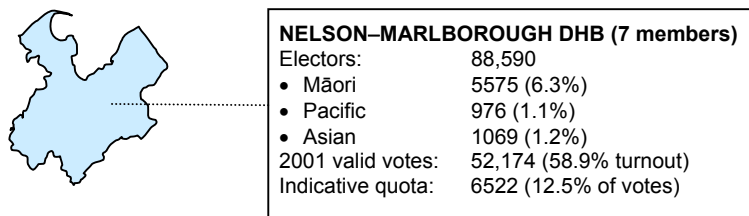
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# Nelson Marlborough DHB

## Current constituency structure



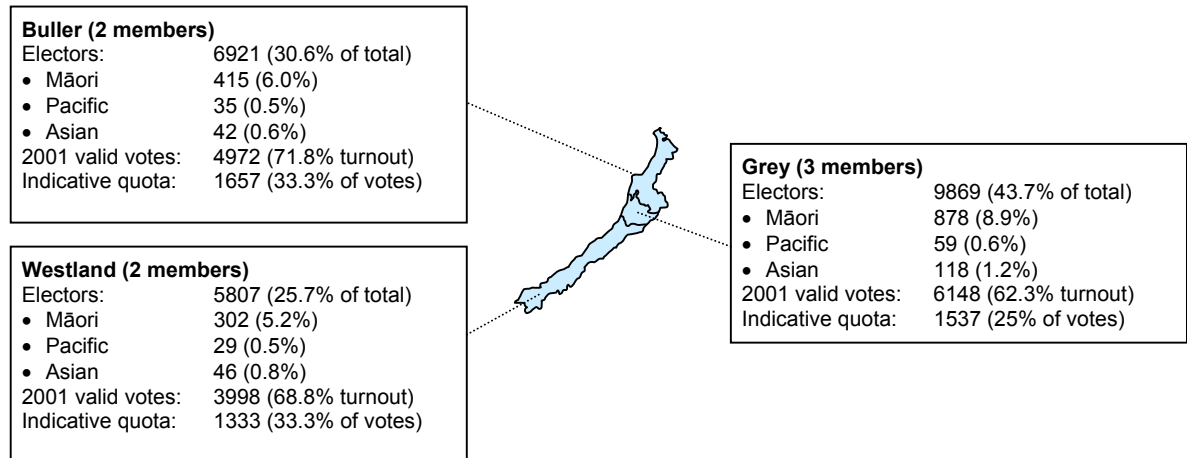
## At-large structure



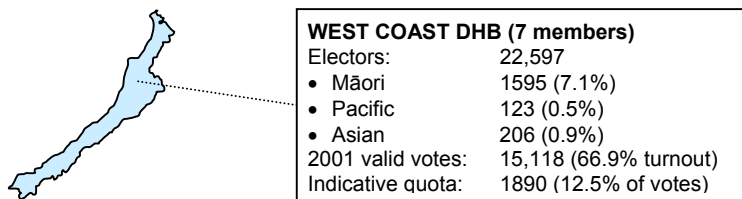
The elector and vote figures are derived from the Department of Internal Affairs' *Local Authority Election Statistics 2001*. Ethnicity data are based on 2001 Census figures and are arrived at by taking the percentage of each ethnic group aged 18 years and over in the area, then applying that percentage to the total number of electors. This assumes that persons are eligible for, and enrol on, the electoral roll in equal proportions to their ethnic group's population share. The indicative STV quota is calculated by taking the number of valid votes cast in each area in 2001, and dividing it by the number of vacancies plus one.

## West Coast DHB

### Current constituency structure



### At-large structure

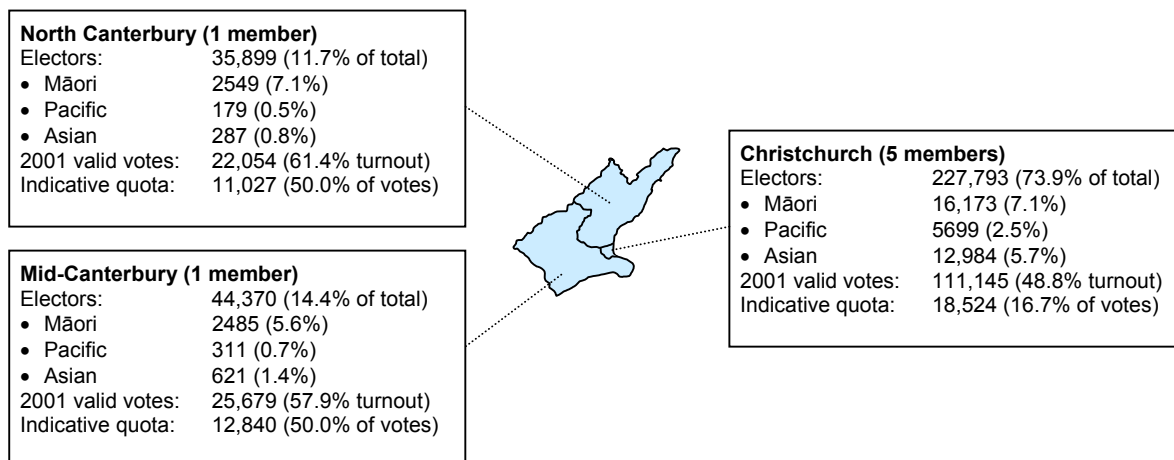


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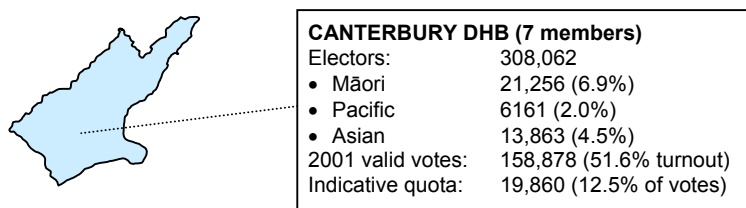
The elector and vote figures are derived from the Department of Internal Affairs' *Local Authority Election Statistics 2001*. Ethnicity data are based on 2001 Census figures and are arrived at by taking the percentage of each ethnic group aged 18 years and over in the area, then applying that percentage to the total number of electors. This assumes that persons are eligible for, and enrol on, the electoral roll in equal proportions to their ethnic group's population share. The indicative STV quota is calculated by taking the number of valid votes cast in each area in 2001, and dividing it by the number of vacancies plus one.

## Canterbury DHB

### Current constituency structure



### At-large structure

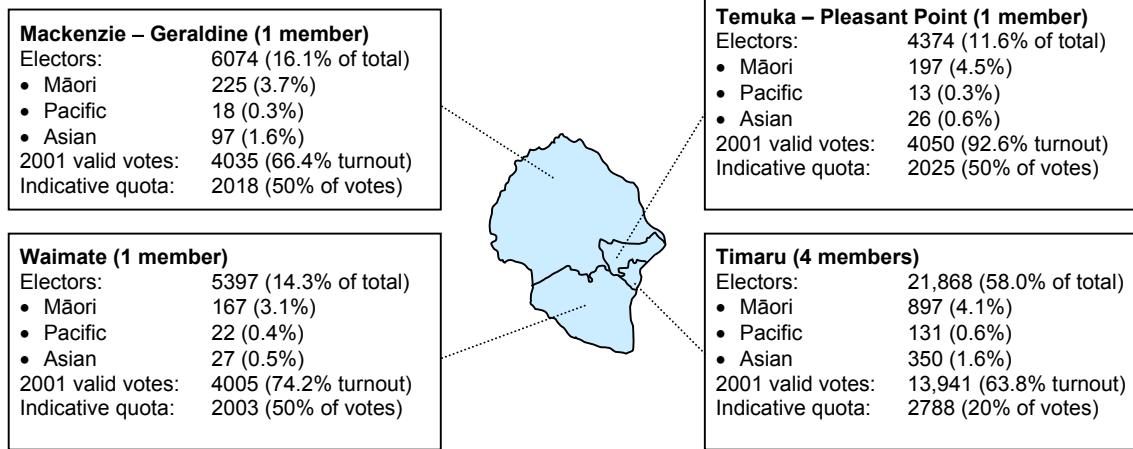


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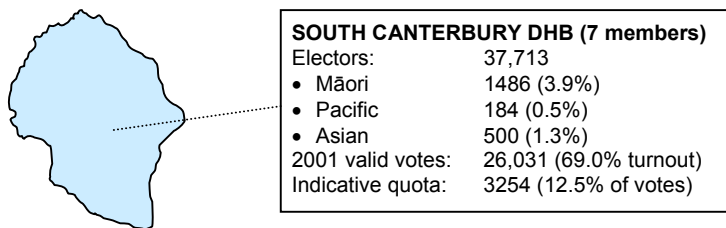
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## South Canterbury DHB

### Current constituency structure



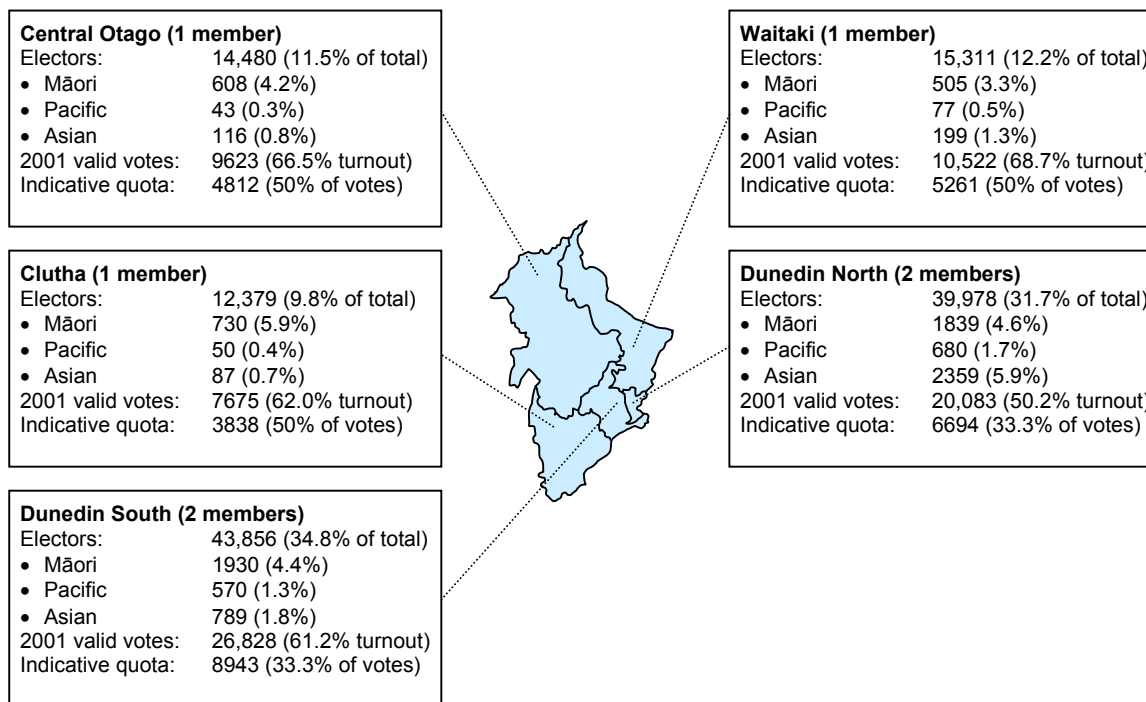
### At-large structure



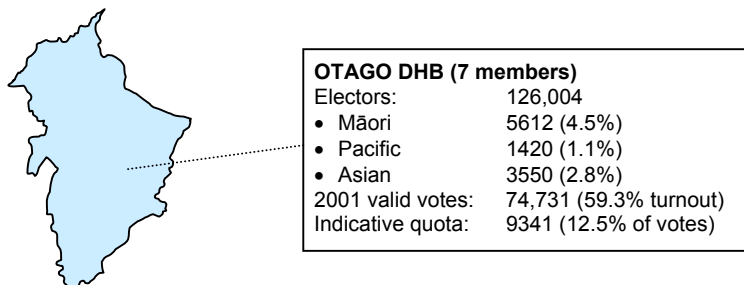
The elector and vote figures are derived from the Department of Internal Affairs' *Local Authority Election Statistics 2001*. Ethnicity data are based on 2001 Census figures and are arrived at by taking the percentage of each ethnic group aged 18 years and over in the area, then applying that percentage to the total number of electors. This assumes that persons are eligible for, and enrol on, the electoral roll in equal proportions to their ethnic group's population share. The indicative STV quota is calculated by taking the number of valid votes cast in each area in 2001, and dividing it by the number of vacancies plus one.

## Otago DHB

### Current constituency structure



### At-large structure

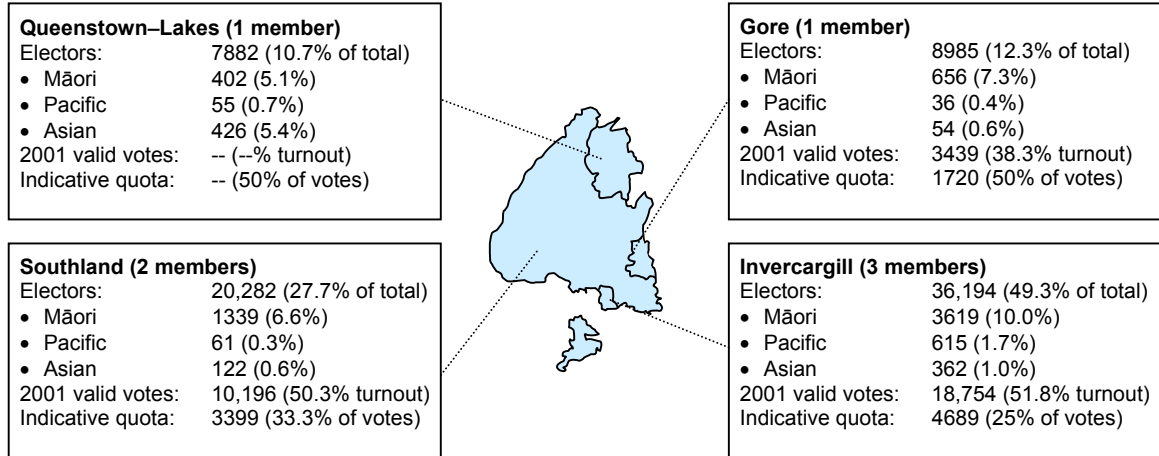


The elector and vote figures are derived from the Department of Internal Affairs' *Local Authority Election Statistics 2001*. Ethnicity data are based on 2001 Census figures and are arrived at by taking the percentage of each ethnic group aged 18 years and over in the area, then applying that percentage to the total number of electors. This assumes that persons are eligible for, and enrol on, the electoral roll in equal proportions to their ethnic group's population share. The indicative STV quota is calculated by taking the number of valid votes cast in each area in 2001, and dividing it by the number of vacancies plus one.

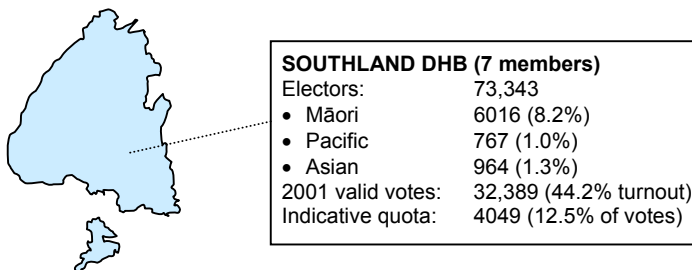
## Southland DHB

Note: the Queenstown-Lakes constituency was not contested at the 2001 elections, therefore no election was required in that constituency (the sole candidate was elected unopposed).

### Current constituency structure



### At-large structure



The elector and vote figures are derived from the Department of Internal Affairs' *Local Authority Election Statistics 2001*. Ethnicity data are based on 2001 Census figures and are arrived at by taking the percentage of each ethnic group aged 18 years and over in the area, then applying that percentage to the total number of electors. This assumes that persons are eligible for, and enrol on, the electoral roll in equal proportions to their ethnic group's population share. The indicative STV quota is calculated by taking the number of valid votes cast in each area in 2001, and dividing it by the number of vacancies plus one.