MINISTRY OF EDUCATION
TE TĀHUHU O TE MĀTAURANGA

Education Report: Veterinary Science enrolment cap and funding rate increase

To:	Hon Chris Hipkins, Minister of Education		
Date:	17 August 2021	**Priority:**	Medium
Security Level:	In Confidence	**METIS No:**	1258877
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Messaging seen by Communications team:	No	**Round Robin:**	No

Summary

Massey University, with support from the Veterinary Council and the New Zealand Veterinary Association (NZVA), have raised concerns around the Equivalent Full-time Student (EFTS) cap and the current Student Achievement Component (SAC) funding rate for Veterinary Science. Their concerns stem from, what they argue, is the workforce pressures of veterinarians in New Zealand and the financial sustainability of Massey University's Bachelor of Veterinary Science (BVSc) programme. Massey University is lobbying for an increase to the cap, a change on how the cap is decided, and an extensive increase to the funding rate.

The Ministry of Education (Ministry) recognises there is a global shortage of veterinary trained personnel leading to workforce pressures on New Zealand's existing veterinarians and acknowledges the need ensure the viability of the BVSc programme. The Ministry in response proposes to increase the cap from 100 places for first year Veterinary Science to 125 places from 2022 and increase to the Veterinary Science SAC funding rate by 10%, from $29,560 in 2022 to $32,516. The Ministry consider these increases an appropriate action to address Massey University and the sector's concerns in the medium term without the need for a Budget bid. The Ministry will continue to work with the Ministry for Primary Industries (MPI) to identify workforce needs that would inform potential further increases to the enrolment cap.

Recommended Actions

The Ministry of Education recommends you:

a) **note** that Massey University, Veterinary Council of New Zealand, and the NZVA have concerns over the number of trained veterinarians and the financial sustainability of the University's BVSc programme

b) **agree** to raise the Veterinary Science EFTS cap by 25 from 2022, from 100 EFTS to 125 EFTS per year

Agree / Disagree

c) **agree** to an increase of 10% for the SAC level 3 and above funding rate for Veterinary Science from 2022

Agree / Disagree

d) **note** that increasing funding for Veterinary Science, as proposed in recommendation (b) and (c), would result in a funding reduction for other programmes (to be determined through TEC investment decisions), equivalent to 150 EFTS in 2022, increasing to 180 EFTS by 2026 when fully implemented

e) **indicate** if you would like us to draft a memo to provide EET Ministers with an update on Veterinary Science changes to support workforce needs, if you agree to increase the cap and/or funding rate

Yes / No

f) **agree** to forward this report to the Minister for Agriculture for their information, given the relevance of Veterinary Science to their portfolio interests

Agree / Disagree

g) **note** the Ministry of Education will continue to work with MPI on tertiary training options to support workforce issues

Katrina Sutich
Group Manager, Tertiary Education Policy

Hon Chris Hipkins
Minister of Education

16 / 08 / 2021

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Background

1. Massey University is the sole provider of veterinarian training in New Zealand through its BVSc programme. Veterinary Science training is a key feature of Massey University's identity and reputation, as it is an internationally recognised veterinary provider.

2. This provision is important to the workforce needs of the country and specifically those who provide a diverse range of essential services in rural and urban communities across animal-based primary industries, biosecurity and animal welfare. With an increased ownership of companion animals, and fast-increasing consumer expectations for animal welfare, the need for clinical and non-clinical veterinarians is growing.

3. This has led Massey University, associated groups within the animal-based primary industries, and MPI, to seek additional provisions for funding and the cap to address the growing workforce demand and ensure the quality of veterinary training.

4. Massey University's BVSc had 440 EFTS in 2020, slightly up from 429 EFTS in 2019. Māori make up only 4% of learners in 2020, while Pacific learners accounted for 1% in 2017. Learners of Asian descent have accounted for 13% of enrolments since 2015. Women make up 82% of all students.

Veterinary Science enrolment cap

5. Funding for Veterinary Science has had a specific volume capped number of EFTS since 1999. There have been two changes to this cap since 1999 to respond to workforce pressures:
    - in 2013 the EFTS cap was changed to apply to first-year entry rather than the overall programme; and
    - in 2017 the EFTS cap was increased from 84 to 100 first year places.

There is a shortage of veterinarians …

6. Massey University, the Veterinary Council, NZVA, and MPI believe the current cap is inadequate in meeting the demand for veterinarians within agriculture, biosecurity, public health, animal welfare, and care of companion animals. Their view is that the sector has a growing demand for more trained personnel because:

    - the current workforce is ageing, with the median age of male and female practising veterinarians being 51 and 38 years respectively (as of 2019);
    - there is a domestic and global shortage contributing to a high reliance on overseas trained veterinarians, with only one in three new entrants into the profession currently trained in New Zealand, down from over 40% a decade ago. New Zealand's reliance on migrant veterinarians, highlighted by the COVID-19 induced border closures, makes us extremely vulnerable to further work pressures with even fewer veterinarians; and
    - there are increasing consumer expectations and international regulatory compliance for animal health and welfare standards.

7. Veterinarians are included as a category of critical workers under COVID-19 border restrictions. Last year the Government granted 30 exceptions for large and mixed animal veterinarians to enter the country, and since June 2021 an additional 50 general practice veterinarians can enter the country.

… and Massey University wants to increase the enrolment cap and change how the cap is decided …

8. Massey University propose a revised management model for the Veterinary Science enrolment cap, from a fixed cap to a workforce needs approach through the establishment of a "Workforce Planning Committee." However, a specific committee would not have an overview of funding implications and potential trade-offs for the tertiary system. Keeping any EFTS cap with the Minister of Education allows, with advice from the sector, for informed government decisions to meet needs and make trade-offs as required.

9. Massey University are undergoing capital building projects for their veterinary school and indicated that the majority of projects would be completed by 2022 and would enable the university to increase capacity if funding was adequate and additional staff recruited. With closed borders, international students will remain offshore, resulting in extra capacity for domestic students.

… while the Ministry recommends increasing the cap by 25 per year

10. In light of the concerns raised by the sector and MPI, we agree that increasing workforce pressure within the sector justifies an increase to the cap of first year EFTS in Veterinary Science. Any increase of the cap needs to consider overall volume pressures and fiscal constraints across the tertiary education system.

11. The Ministry proposes increasing the cap for first-year entrants by 25 new EFTS, bringing the total number of placements for first year BVSc to 125. The increase from 100 to 125 can be achieved next year without a substantial knock-on effect to the rest of the tertiary system if a decision is made by the end of September. This would apply for the first-year intake from July 2022 as first year BVSc learners do not start until halfway through the year in semester two, being required to first complete a semester of pre-requisite papers. Due to the programme starting in July, increasing the cap by 25 EFTS would only result in an increase of 12.5 EFTS in 2022. Those 12.5 EFTS then become 25 EFTS with a full calendar year of study the following year.

Impact of the cap increase on funding for other programmes

12. If the cap were to be increased by 25 EFTS (12.5 EFTS in first calendar year), then when fully implemented from 2026, there could be up to 112.5 additional EFTS across the whole of Massey University's BVSc programme.

Table 1: Increase of EFTS over 5 years

Year	Additional Vet EFTS	Net-cost ($m)	EFTS Trade-Off
2022	12.5	0.19	20
2023	37.5	0.57	55
2024	62.5	0.96	95
2025	87.5	1.70	165
2026	112.5	2.44	240

13. In Table 1, the EFTS trade-off represents the funding reprioritised from other programmes to fund the additional Veterinary Sciences places, that are funded at higher rates than other programmes. Taken into account within the EFTS trade-off above and given that the additional Veterinary Science students would have likely

enrolled in other degree-level programmes, this partially offsets the EFTS trade-off from other programmes.[1]

14. The additional cost for the initial 12.5 further Veterinary Science EFTS is a minor trade-off of 20 EFTS in 2022. After five years the increase will be fully phased in, levelling out at $2.436 million from the 112.5 additional EFTS – a trade-off of 240 EFTS. This reduction represents 0.17% of the 140,000 EFTS at degree-level and above delivered in 2020. This is a modest change phased in over time rather than a direct impact on the next two calendar years, which will likely have more constrained funding for tertiary enrolments, given current volume pressures.

15. MPI officials would like a more aggressive increase and support doubling the first-year places, to 200 by 2023, to support workforce needs. A substantial increase would be difficult to implement by simply reprioritising EFTS within the system given the impact on funding other EFTS, especially given volume pressures within tertiary education at present, and may instead require a Budget bid.

16. There may be scope for further increases in the Veterinary Science EFTS cap to increase supply of the New Zealand trained workforce in the medium-term. The Ministry will consider such increases annually over the next few years, with input from MPI and the sector, to ensure there is a more sustainable workforce.

17. We do not consider that increasing the cap for the BVSc will lead to an oversupply of trained veterinarians. The BVSc is 4.5 years long programme, meaning the effect of new graduates is phased in over time. Veterinarians are high skilled workers, so they are flexible in the labour market and have among the highest employment rates of any tertiary graduates. Additionally, with a global shortage, veterinarians will continue to be in high demand.

18. Like all university graduates, a portion of BVSc graduates go overseas to work after receiving their qualification. However, prior to COVID-19, this only represented 20% of BVSc graduates overseas after 10 years, compared to around 50% for medical graduates.

Veterinary Science SAC funding rate

Veterinary is a specialist occupation with high-cost training …

19. Massey University's position is that an increase in the EFTS cap without a funding rate increase risks its international accreditation. Massey University considers the quality of teaching will be reduced without additional investment and the financial sustainability of its BVSc programme as a whole will be impacted. Massey University proposes increasing the funding rate for Veterinary Science degrees and postgraduate from its current level ($29,506 per EFTS in 2022) to the highest funding rate which is for Dentistry degree-level provision ($55,519 per EFTS).

20. The basis for Massey University's proposed rate is that in England and Australia the rates for Veterinary Science are the same as their Medicine and Dentistry rates. The Ministry does not consider this a compelling argument, particularly as international comparisons are difficult given the different economies of scales affecting rates,

[1] The calculations of net costs and corresponding EFTS reduced are on the assumption these additional students enrolling in BVSc with a cap increase would have otherwise enrolled in a three-year science degree or equivalent degree level programme.

funding models, fee income, and approaches used by governments. For example, when converting how much money England and Australia give per Dentistry EFTS into NZ dollars, the actual rate is lower than New Zealand's current Veterinary Science funding rate.

Capital costs and revenue

21. Massey University has committed 9(2)(ba)(i) of its own reserves to refurbishing the veterinary school's infrastructure. 9(2)(ba)(i) [redacted]

22. 9(2)(ba)(i) [redacted]

23. Increasing fee payments from students cannot be a source of additional funding for the BVSc programme as providers are restricted from marginally increasing student fees by the Annual Maximum Fee Movement (AMFM). The Ministry is the only avenue for Massey University to seek any additional funding from.[2]

… and our analysis suggests there is a slight funding shortfall

Context

24. Delivering Veterinary Science education is resource-intensive, and provision is high-cost. Unlike Medicine, but similar to Dentistry, the BVSc programme also provides its own facilities for training with actual patients, such as a veterinary hospital. These facilities are costly and due to the focus on training, tasks can take longer than in purely commercial operations, and the income for services will be lower to reflect training needs.

25. The SAC funding system operates as a bulk funding system involving some cross-subsidisation. Through the bulk funding approach, institutions have flexibility on how funding streams are used to fund overhead costs. Funding does not take into account economies of scale, with the first and last enrolment funded the same, whether for 10 or over 10,000 enrolments. It is not designed to cover the whole cost of provision, and providers can charge regulated fees to students. The funding system facilitates institutional autonomy and devolved decision making to tertiary education organisations.

New Zealand Benchmark Tool data

26. The New Zealand Benchmark Tool (NZBT) is used to compile data from all tertiary education institutions to compare direct operating cost and tuition subsidy relativities across broad fields of study. Significant mismatches between funding and delivery

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9(2)(f)(iv) [redacted]

costs have the potential to distort the supply of tertiary education and undermine the quality of NZBT.

27. There are, limitations to the NZBT as the more funding a programme gets, the more funding the university could potentially spend. However, the NZBT is currently the most relevant way of assessing operating cost and tuition subsidy.

28. Looking at NZBT 2019 data, we can see cost-per EFTS for Veterinary Science is still lower than cost-per Medicine and Dentistry EFTS. However, it has increased per EFTS since the assessment in 2014, partly as depreciation costs for capital are now included.

29. The NZBT uses the cost ratios between a commerce programme and other programmes to illustrate the cost of delivery. Commerce programmes are used as a benchmark because the delivery cost is consistent across providers and therefore easy to measure. Using 2019 data, the cost-related ratio indicates there is a funding gap. A 7% increase in the funding rate would have been sufficient on 2019 data to align the ratios of SAC income and cost per EFTS of veterinary school delivery. The NZBT data therefore supports a moderate increase, rather than a more substantial increase at the rate suggested by Massey University.

30. We note that there are substantial capital costs and resource costs within the delivery of Veterinary Science that are not considered in SAC funding increases. However, depreciation costs are considered as part of the overall costs of the programme in the NZBT data.

Rationale for an increase

31. There is some rationale for an increase, given it is a higher cost area, and the need for an expanded number of places to meet workforce needs. While more places would provide further economies of scale, it would still lead to increased total costs and require more facilities, teaching support, and placements in the industry.

32. With a current uncertain and constrained volume environment in tertiary education, additional funding has been sought to manage the increased volume of enrolments in tertiary education enrolments. Therefore, any modest rate increase needs to consider a volume trade-off that could affect access to other programmes.

We have identified options for funding changes …

33. We have outlined four funding rates options for Veterinary Science, and their cost and trade-offs in terms of funding available for other EFTS are in Table 2 below. We have included Massey University's proposed Dentistry 2022 rate increase, the Ministry's recommended option, and then given the scale of the differences to options between to highlight comparative trade-offs. The three options are:

    1) 2022 status quo
    2) a 10% ($2,956) increase (***Recommended****)*
    3) an increase to match the 2022 Dentistry rate of $55,519 (88% increase) (*Massey University's proposal*)

Table 2: Impact of increasing Veterinary Science funding

Options includes additional cap increase of 25 EFTS*	SAC funding rate	Estimated additional SAC Funding in 2022 ($m)	EFTS Trade-Off by 2022	Estimated additional total SAC funding in 2026 ($m)	EFTS Trade-Off by 2026
1. 2022 Funding Rate	$29,560	0.2	17	0.2	21
2. 10% increase	$32,516	1.5	150	1.8	180
3. Increase to Dentistry 2022 rate (88%)	$55,519	13.3	1,300	16	1,555

Table Notes: The EFTS trade-offs in this table have been calculated using the average cost per EFTS ($10,000). As the enrolment cap is for the first year of the programme, 25 additional EFTS will be added every year until 2026 when the costs even out and implications of the cap increase is fully realised.

34. Option 1 is the status quo, and the Ministry considers there to be a need for an increase. Options 3 presents a significant increase with equally significant implications. To increase the funding rate to Dentistry means trading-off between 1,500 EFTS from other provision.

… and the Ministry recommends a 10% increase

35. The Ministry recommends increasing the funding rate by 10%, from $29,560 for 2022 to $32,516 (an $2,956 increase). This increase would represent an additional annual cost of $1.8 million by 2026 and a 180 EFTS trade-off. We recommend this as a pragmatic approach for 2022, that balances the evidence that supports funding for a moderate increase, without significantly impacting volume available for other tertiary programmes.

36. We recommend that if a more material increase in the rate, which would also create a more significant trade-off on tertiary education volume, is preferred it should be considered via the Budget process. A higher increase to increase the SAC tuition subsidy rates that apply to Veterinary Science could be considered as a proposal in Budget 2022 or Budget 2023.

37. An increase of 10% from 2022, would go some way to addressing Massey University's concerns around the cost of delivering the BVSc and support the cap increase to grow the workforce without a significant impact on tertiary volumes in 2022.

Next steps

38. Subject to your agreement to increase the EFTS cap and/or funding rate, the Ministry will progress these changes to Veterinary Science through the SAC level 3 and above funding determination for 2022. We will also communicate any changes to Massey University to enable them to plan for enrolments in 2022.

39. We would recommend updating EET Ministers on changes to Veterinary Science funding, if you progress the recommendations, given its relevance to industry needs and recent decisions on immigration settings.

40. We also recommend forwarding this paper to the Minister for Agriculture, as Veterinary Science workforce needs are relevant to their portfolio. We will continue to work with MPI and industry on options for subsequent increases in the EFTS cap.

41. 9(2)(g)(i) [redacted]