Deloitte.

HNZ Financial Review for 2024/25: Model Reviews Interim Report

Commercial – In Confidence

Version 2, 24 March 2025

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Contents

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The matters detailed in our report are only those which came to our attention during the course of performing our review and did not necessarily constitute a comprehensive statement of all the weaknesses or issues that exist or actions that might be taken. Accordingly, management should not rely on our report to identify all weaknesses and issues that may exist in the systems and procedures discussed. The report should be read in the context of the scope of our work.

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Version Control and Contact

Version	Date	Comment
1	20 March 2025	Initial draft for internal review
2	24 March 2025	Interim Report for client review

Contact for more information

For more information in relation to this report, please contact s 9(2)(a)

Executive Summary

Introduction

Deloitte has been engaged to produce an assessment of whether Health New Zealand (HNZ) is on track to deliver on its stated financial position for 2024/25 of a $1.1 billion deficit. This is with the intention of supporting work to be undertaken by the Health Assurance Unit in the Public Service Commission.

In preparing this assessment, Deloitte has also been requested to undertake a rapid review of the modelling and workbooks used to determine the activity and associated funding in relation to:

- boost to electives for 2024/25 and 2025/26 (Planned Care model)
- urgent care framework and implementation from 2025/26 (Urgent Care model).

Report purpose

The purpose of this report is to identify and report material points for the Planned Care and Urgent Care models that require consideration by HNZ.

This report provides observations on the potential limitations and risks of the two models in determining the activity and to the associated funding, along with recommendations on how to address these limitations and improve the overall effectiveness of both models.

This report outlines for each model, the following:

- purpose of the review,
- documentation provided,
- scope of the review,
- not within scope of this review,
- an overview of the model,
- key observations and recommendations, and
- summary of findings.

Approach

This rapid review of the two models was to be undertaken in the first two weeks through an interim report. Documentation for both the models was shared to provide the basis of a desktop review and sessions were held with the respective model owners to gather supplementary insights and deep dive into any specific review points.

Observations and findings through this review have been made on the information that has been provided, which can be found in Appendix A. Findings are therefore limited to the extent of this documentation. As this is a rapid review and is conducted on limited information, it will not be complete or comprehensive and there is always a risk of errors when using spreadsheets.

Summary of findings

Our review of the two models suggests there is minimal financial risk from expenditure within scope of the Planned Care and Urgent Care initiatives to the 2024/25 financial position.

Planned Care

Planned Care has some associated expenditure for 2024/25 and therefore a potential impact on the year-end result. The model reviewed was a simple aggregation model that totals up volumes and average price estimates by specialty and region, based on detailed calculations from other models that have not been reviewed. The output of the model was an estimated volume and spend by speciality and region, which is being funded through an allocation from existing 2024/25 HNZ funding.

The primary risk in the current year is that referrals from districts and regions to outsource providers will be made at higher volumes and/or higher prices than the estimates contained within the model. The key mitigations for this are the regular reporting, the ability to insource work at specific locations, the limited time remaining in the financial year, and overall scale of the expenditure being relatively limited and incremental to existing insourced planned care workloads s 9(2)(j)

From 2025/26 onwards, financial risk primarily lies in potential underestimation of the number of procedures required to achieve reductions in waiting times, reduced ability to access insourced capacity, and the average price of outsourced procedures being higher than calculated in the modelling.

Urgent Care

The Urgent Care Clinics plan and associated expenditure is expected to start from 2025/26 and therefore has no impact on the 2024/25 financial position. For 2025/26, the model used to estimate budgeted expenditure was rapidly developed on the basis of several assumptions in order to provide indicative volumes and costings.

Our review suggests this is a simplified model determining budgeted expenditure for a potentially complex policy framework and, as a result, could likely pose a number of financial risks. These risks lie primarily in the use of outdated data as inputs into the model, the absence of some costing components in determining the budget, and variability in the costing structures of the sites. If these costings are likely to have been underestimated, then the estimated budgets would not be sufficient to cover the impact of the framework.

The scale of expenditure should also be considered when evaluating the overall risk. Based on the documentation provided for this review, the additional expenditure budget for urgent care is approximately $166m for 2025/26 ($154m for urban archetypes and $12m for remote, distributed archetypes). In proportion to HNZ's total budget and overall financial position, these figures are relatively modest and therefore some adverse variability to the costings and associated expenditure are likely to pose little risk to the aggregate financial performance of HNZ.

Planned Care Model Review

Purpose of this review

Through a review of the Planned Care Model (PCM), specifically the Final Master Outsourcing Uplifts spreadsheet that was provided, this review sought to identify material points that require consideration by HNZ regarding the model underpinning the estimated expenditure to boost electives for 2024/25 and 2025/26.

Observations are provided on the potential limitations to the model's methodology and its underlying assumptions, along with recommendations on how to address these. This review also provides an assessment of the potential risks to the activity and associated funding determined for the uplift in electives in order to support delivery of the elective treatment health targets.

Documentation provided

HNZ provided the following documents to support the review:

- Final Master Outsourcing Uplift Spreadsheet containing the summarised number of uplifts with a regional breakdown.
- FINAL Plus 2 20 -02-2025 - Aide memoire - Supplementary Information Private Sector Outsourcing - HNZ00079260 outlining the analysis of additional activity to meet 70% target by June 2026.
- Spreadsheet Updated pricing information_June 30 which includes cost of pricing for additional treatments planned.

Scope of this review

The focus of this review was to provide observations on the effectiveness of the planned care model in determining the estimated expenditure for 2024/25 and 2025/26 that is required to boost outsourced elective treatments in order to achieve the health targets. It was also to provide an assessment of risk in this associated funding. This was completed through a desktop review of the documentation provided and a 60-minute session with key model owners from HNZ to deep-dive into specific review points and gather supplementary insights. This review and its findings are therefore limited to the documentation provided and session conducted.

Not within scope of this review

The detailed model behind the outsourcing uplifts spreadsheet was not provided and therefore not included in this review. Whilst a high-level review was undertaken of the model and its functionality, comprehensive checks to identify material formula or workbook errors were not undertaken. Additionally, this review does not include sensitivity analysis or stress testing checks.

An overview of the model

Introduction

The PCM outlines the additional activity that is needed above baseline in order to achieve HNZ's elective treatment health target of 70% (measured on a percentage basis with respect to the number of people waiting less than 120 days for elective treatment) by 30 June 2026.

Delivery against this health target has been set into three time periods:

- June 2025: 63.5%
- August 2025: 64.5%
- June 2026: 70%

The purpose of the PCM – of which the Final Master Outsourcing Uplifts spreadsheet is only a summary output of other, more detailed models that Deloitte did not receive or review – is to calculate the incremental activity that is required for each time period in order to support delivery against this target. To achieve these milestones, HNZ are planning to increase the delivery of elective treatment through two primary methods:

- Outsourcing elective treatment to private sector
- Insourcing via redistribution of patients across the system

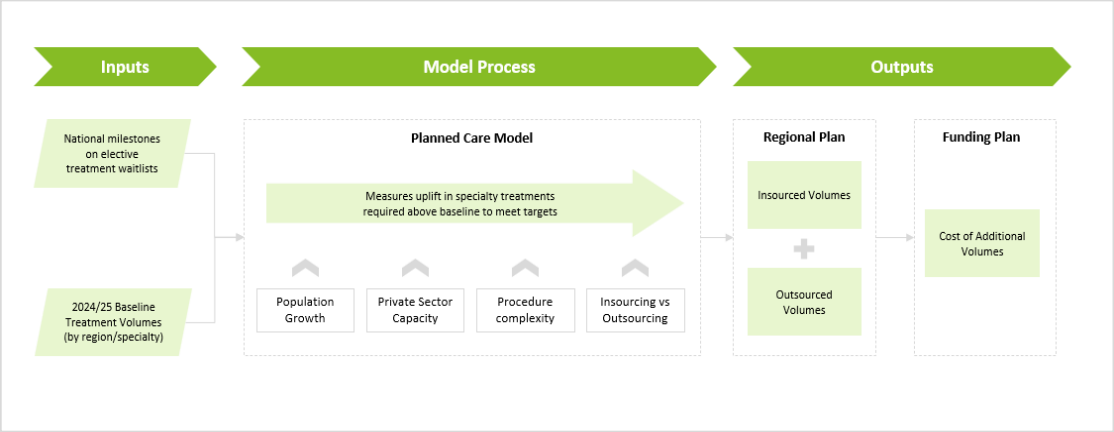
The model outlines the change in volume, both outsourced and insourced, by specialty by region, that are required to achieve the health target and quantifies the expected cost of these additional volumes.

Methodology

To achieve this, the PCM uses 2024/25 actuals to-date (until Feb 2025) as the baseline treatment volumes, broken down by specialty and region. The model then measures the uplift required in specialty treatments above the baseline for each time period in order to meet the health targets. It then quantifies the cost of any uplifts, the mix of insourcing and outsourcing uplifts, and measures the shortfall or excess against the additional volume demands.

This model serves as the plan for each region to deliver against the waitlist milestones and provides a basis for monitoring any deviations against the targets and indicates adjustments required in future periods in order to remain on track against target.

Figure 1: Planned Care Model Process



Model assumptions

The model is predicated on a small number of key external variables. These variables and assumptions are outlined below:

Population Growth – The expected waitlist is adjusted population growth of 1.5% per annum.

Private Sector Capacity – There will be variations in private sector capacity between specialties and regions, which will influence outsourcing volumes.

Procedure Complexity – The approach for the first year is focused on outsourcing simple procedures in order to achieve the health targets, with more complex procedures insourced. In subsequent years there will be an increasing focus on outsourcing more complex procedures.

Insourcing vs Outsourcing – To increase the delivery of elective treatments, HNZ will initially focus on insourcing treatments, however, towards the end of 2024/25, most of the additional procedures will come through outsourcing to private sector.

Key observations and recommendations

Quick model turn around

We note that the Planned Care Model has been put together at rapid pace and has a few iterations of which the latest model shows the progressive target to 70% over the three time periods, namely: Present to June 25, July 25 to August 25, and August 25 to June 26.

With models of this nature where there may be ongoing use and updates made to track and report performance it is recommended that improvements are made in line with best-practice spreadsheet modelling, in order to improve robustness and resilience to future use and changes in data and assumptions. For example:

- The source models and the output summary model should be consolidated as a single integrated model, rather than relying on manual cut-and-paste or data inputs between models.
- For any rapidly built models such as the volume model, undertake a clean-up to improve transparency, documentation and traceability to data sources and assumptions.

- Separate the input assumptions from calculations and ensure that these sources are of data clearly documented for the future.
- Maintain a model methodology document that describes the objectives, description of the modelling methodology and logic, key assumptions and maintain this document going forward.
- Consider developing a forecast model to show the longer-term outlook and impact to the backlog.

Top-down review

We have conducted a top-down review looking at the overall structure and flow of the model, and the methodology it uses to produce the volume and expenditure estimates for 2024/25 and 2025/26. We recommend that the analysis consider modelling a counterfactual, i.e. what would the volumes look like if no policy change was introduced to the number of outsourced and insourced elective procedures. This provides an additional ability to test and check the proposed initiative and scenarios showing volumes and expenditure, to ensure that changes are flowing as expected into outputs for the planned care model.

Pricing

The current elective surgery pricing used is based on an average price delivered by speciality using national pricing. This is a key simplifying assumption used to produce an expected expenditure budget, because while outsource costs per procedure vary by provider, the exact combination of providers and procedures is not known in advance. As individual districts and regions call off procedures under the outsourcing contracts, actual expenditure by specialty and region will become clearer over time.

The current pricing used is based on an expected mix of surgical procedures (low and high cost) and whilst the exact pricing make-up has not been reviewed, it is understood that outsourcing simple surgeries to the private sector will enable HNZ to better achieve the target outcomes in the short term. HNZ should ensure that the pricing has sufficient coverage for the uplift by tracking actual expenditure over time.

70% Target

It is expected that achieving HNZ's target of 70% will be a consequence of reducing the elective treatment waiting list above 120 days, whilst simultaneously reducing the total wait list. Whilst the actual volume model has not been reviewed, there is a risk to the overall level of expenditure required if the outsourced volumes have a greater level of high-cost surgeries, or if the overall estimate of volume required to reduce those waiting above 120 days is less than the actual demand.

Volume model methodology

We understand the methodology behind the underlying volume model has considered and accounted for a number of factors that may impact the ability to achieve the target outcomes. This includes assumptions on the private sector's capacity to handle additional planned surgeries in each region, the availability of skilled personnel, and the ability to manage logistical challenges across different regions. As the volume model has not been directly reviewed, these observations were not able to be validated.

Understanding these variables in more detail will be crucial in determining whether the private sector can effectively support the increased surgical demand without exceeding its operational limits. This may present a risk to achieving the policy outcomes, rather than being an issue that can be resolved in the model we reviewed.

Summary of findings

We believe there is relatively low risk to the volumes and associated expenditure budget modelled for the boost to electives for 2024/25, with some greater risk for 2025/26. Key risks are outlined below:

- Consumption of the outsourcing contracts is through decisions made in districts and regions in relation to the specific cases to outsource to specific providers. Perfect foresight of the resulting costs and impact on waiting times is therefore not possible, and so simplifying assumptions have been made to use estimated volumes and average prices by specialty and region. These simplifying assumptions may underestimate the volume and expenditure required to achieve the policy outcomes by the scheduled milestones, but against the backdrop of total spend the risk to 2024/25 and 2025/26 financial position for HNZ is relatively minor.
- For 2025/26 it is more likely that the estimates and assumptions that underpin the activity and costs within the model could be underestimated, due to factors such as population growth, cost growth, second order effects on reducing waiting times, and variations between regional and specialty volumes versus the modelled calculations.
- There could be material price variations in these outsourcing contracts, such as if treatments are to be delivered through more expensive providers, then outsourcing costs could be higher than estimated. Reporting of actuals versus budget, and consumption of services from across the range of contracted providers, will be important if the average price by specialty assumptions are to be met.
- Current elective surgery pricing in the model is measured based on pricing per specialty. In practice pricing is likely measured per CWD or by price for different types of cases, and this variation could give rise to some financial risk.

In summary, if HNZ manage the outsourcing process and costs effectively and monitor actuals versus budget each month, then there should be minimal financial risk, particularly for 2024/25.

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. Therefore, in the context of the wider financials, variability of delivery within these estimated costs will have a relatively immaterial impact on HNZ's aggregate financial position.

Urgent Care Model Review

Purpose of this review

Through a review of the Urgent Care Clinics (UCC) model, specifically the UCC Draft Model and Remote Site spreadsheets provided, this review sought to identify material points that require consideration by HNZ regarding the model underpinning the plan for the UCC framework implementation from 2025/26.

Observations were to be provided on the potential limitations to the UCC model's methodology and its underlying assumptions, along with recommendations on how to address these. This review was also to provide an assessment of the potential risks to the associated expenditure determined for the volume uplift in order to support delivery of the UCC framework.

Documentation provided

HNZ provided the following documents to support the review:

- UCC Draft Model v7 - for review Spreadsheet containing the funding model for Urban archetypes.
- Remote site - cost estimate model - for Treasury Spreadsheet outlining the funding model for Remote, distributed archetypes.
- UCC Summary PowerPoint providing a high-level summary of the methodology behind the models.
- Urgent Care Model Documentation outlining the UCC models and methodology in detail.

Scope of this review

The focus of this review was to provide observations on the effectiveness of the urban and remote, distributed models in determining the expenditure required to support the implementation of the urgent care framework from 2025/26 and an assessment of risk in this associated expenditure. This was completed through a desktop review of the documentation provided and a 30-minute session with key model owners from HNZ to deep dive into specific review points and gather supplementary insights. This review and its findings are therefore limited to the documentation provided and session conducted.

Not within scope of this review

Whilst a high-level desktop review was undertaken of the urban funding model and remote, distributed funding model spreadsheets and their functionality, comprehensive checks to identify material formula or workbook errors were not undertaken. Additionally, this review does not include sensitivity analysis or stress testing checks. It is also noted that the broader primary care funding and supporting models, outside of UCC, are not covered in this review.

An overview of the Urgent Care Model

Introduction

The UCC framework is designed to enhance access to urgent healthcare in a primary health setting by directing funding to specific urgent care needs. The UCC model is a current development that aims to provide indicative costings to support delivery against the UCC framework. At its core, the model seeks to allocate resources based on population coverage methodologies, developing expenditure estimates that are aligned with the specific needs and demographics of different areas.

Methodology

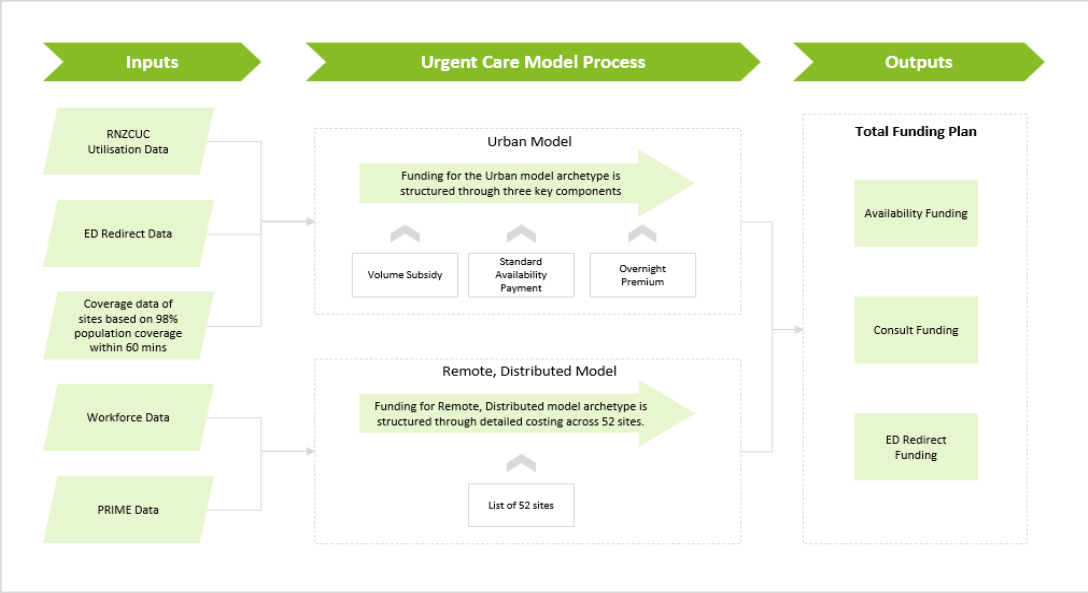
The model identifies four urgent care service archetypes based on characteristics including population, geographic, and community. The model is constructed in two parts:

1. "Urban" Model:
    a. Large Urban
    b. Provincial
    c. Rural
2. "Remote, distributed" Model.

This has been done to reflect the unique characteristics of both urban and remote modelling. The urban model is market driven through a top-down approach and the remote, distributed model is driven through a bottom-up approach that is governed by the viability of desired outcomes from a cost perspective.

The model uses a list of sites based on achieving 98% population coverage within the catchment population. Catchment is based on the total number of people within a 60-minute drivetime of the site.

Figure 2: Urgent Care Model Process



Methodology – Urban Model

Funding for the Urban model archetype is structured through three key components:

a) Volume subsidy for selected cohorts

b) Standard availability payment (per hour)
c) Overnight premium (per hour)

Volume Subsidy is determined by multiplying expected consult volumes by user-defined subsidy values, based on catchment data within a 60-minute drive time. This uses utilisation rates from Royal New Zealand College of Urgent Care (RNZCUC) 2022 data relative to GP enrolment numbers, applied across cohorts such as age and service categories. Volumes can be refined to account for diversions, unmet health needs, and different utilisation rates.

Standard availability payment is driven by user inputs such as unit rates and operational hours, allowing separate evaluations for weekdays and weekends on an annual basis.

Overnight Premium combines standard unit rates with a premium for sites operating 24/7, calculated based on user-provided data.

Methodology – Remote, Distributed Model

This archetype employs an integrated service approach, blending costed components into a broader service network requiring detailed costing. Uniform treatment is applied across all 52 sites, assuming consistent clinician callout rates and Point of Care Testing infrastructure. These have been selected based on geographic modelling which outlines the proximity to centres (catchment). Given that these are the most remote sites, the model is viability driven and done through bottom-up costing.

Certain costs are excluded from this model, notably investments for improving medicine access, core primary care and daytime service salaries, and revenue from patient co-payments. This approach aims to streamline funding while recognising the unique infrastructural dynamics of remote healthcare services.

Model assumptions

A number of key assumptions underpinning the model methodology are outlined below:

Use of 2022 Utility Data and 2024 ED Data – The UCC model has been informed by the 2022 Utility Data from the Royal College of Urgent Care. This assumes this is a complete and accurate reflection of recent utility data. This model also relies on 2024 ED data and therefore assumes that there has not been a material change in ED consultations since 2024.

Catchment Data – Assumes that recorded data for addresses is an accurate representation of the proximity to UCC.

Population of Consults – For new UCC consults there is an assumption that there will be demand. Assumed that this will be derived from a combination of both inherent consumer demand and the opportunity to change from self-referral to ED to this alternative intervention option.

Key observations and recommendations

Modelling best practice

The model has recently been developed and is intended to be revised and enhanced as additional data and assumptions are made available. Its structure is robust, featuring clearly defined logic and a linear calculation flow that ensures transparency

and clarity. Input assumptions are distinctly separated from the calculations, adhering to best practices in model development.

Based on observations through this review, the following recommendations are made to improve the effectiveness, robustness and resiliency of the UCC model to any future changes in assumptions or data:

- The model to include total checks to ensure that totals flow correctly through the model from source / input data through to calculations where relevant (i.e. population totals, consult totals, # UCCs)
- Including a summary dashboard of a comparison to a baseline or counterfactual scenario. This will test the benefits and cost of the proposed model. The summary could cover:
    - The existing UCCs, their locations in comparison to the new proposed UCC's.
    - Historical UC consults (by cohort) and the adjustments made to develop 2026 expected consults. This could be shown by a bridge/waterfall chart, and it is recommended that the same is done for EDs.
    - How the 2026 is then redistributed across the proposed UCCs – and by cohort.
- The structure of model may need to be modified if forecasts need to be developed from the model to allow analysis over the longer time horizons. The current model is a static one-year analysis.
- Combine all the source and calculation models into one to have a single consistent model that does not rely on model linkages or manual cut-and-paste or data entry.
- Consider rationalising certain calculations such as the "current UCC working" calculations as there are multiple steps involved that could potentially be rationalised.
- References be added to data sources to understand where the data is sourced.

National based approach

The current model is designed to produce a national outcome, integrating some regional utilisation and demand profiles. It employs simplifying assumptions, such as a uniform national pricing/funding per consultation and a 40% unmet need assumption across all regions.

Over time we would expect that HNZ assesses the validity of these assumptions to meet the requirements of the stakeholders and refines the modelling methodology to incorporate region-specific or service-specific variations as the model progresses and more supporting data becomes available.

UC data

The 2022 UC data shows 1.8m urgent care consults, however, the reviewed model shows 2.5m. While majority of the increase relates to unmet needs of 40%, HNZ should consider:

- Does HNZ have a view on the size of the unmet need to support this assumption?

- How does this impact other channels as the funding is redistributed potentially from those other areas such as GPs?

Demand

Through this review it is observed that the following items need to be considered/revised:

- The 2024 ED volumes need to be rolled forward to 2025/26 with a growth factor applied to them.
- Clarification of what adjustments have been made to the 2022 UC consults volumes to reflect a 2026 based utilisation rate.

Shadow cost model

HNZ should consider a shadow cost model to test the commercial viability of each UCC based on the expenditure estimates and volumes that are expected. A shadow cost model allows HNZ to understand how the planned expenditure would be experienced by providers, in order to assess how provider costs may align with expected revenues and hence assess commercial viability.

Remote, distributed model

It is observed that the remote, distributed model makes the following assumptions that should be noted:

- The current model assumes that all UCC's are similar and costing structures do not vary across each remote location.
- It is assumed that there is an existing facility in each remote location and therefore the modelled costs are incremental to the existing clinic/facility in those remote areas.

Other key assumptions

The following are further limitations to the model and its methodology that have been observed through this review:

- Utilisation rates are currently not linked to co-pay.
- Utilisation rates are currently not linked to opening hours.
- Diversion rates from ED is set at 48% for Triage levels 4 and 5.
- Diversion away from urgent care is set at 0% and not used by the model.
- Availability of workforce, facilities, capital expenditure are all out of scope of this model.

Summary of findings

The UCC plan and its associated expenditure is to be implemented from 2025/26 and so is not a material consideration for the 2024/25 financial position, resulting in little risk in-year.

From 2025/26, the UCC plan is to be funded from a pre-budget commitment, with this expenditure part of HNZ's baseline. As the supporting models for UCC funding are cost-up models there is some risk to the expenditure since it has been determined based on assumptions and cost estimates. Some of these risks are outlined below:

- Variability in any of the three funding components for urban sites could result in actual costs being higher than the expenditure estimate. For example, subsidy is determined using utilisation data that is three years old and uses consult fees that could be underestimated due to the simplified assumptions. Additionally, significant variation in co-payments could result in greater associated expenditure.
- In practice, there is likely to be a higher degree of variability in the cost structures of the remote, distributed sites. Financial risk would be dependent on whether these structures have been over/underestimated on aggregate. Additionally, the absence of certain costing elements, such as core primary care salary costs, would have likely driven lower expenditure estimates.
- A core component of the UCC model is in the assumption that there will be demand for new UCC consults, and that these will result from a material number of ED redirects leading to a reduction in ED volumes. There is a possibility of further downstream costs if this assumption does not hold.

In summary, we have observed through this review that since the UCC model was developed at pace to provide early indicative volumes and costings, in its current state it is a simplified model used to determine budgeted expenditure for a potentially complex framework. As a result of the simplifying assumptions made, there is some financial risk from 2025/26 but that will to a large extent depend on the mechanism for paying providers whether that risk is experienced by HNZ or by providers.

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based on the documents provided, and is relatively small in proportion to HNZ's overall financial position. As a result, whilst some adverse variability would be expected to the expenditure levels, it would likely be of minimal impact to HNZ.

Appendix A: Acknowledgement of Interviewees

Session	Attendees	Role
Planned Care Model	s 9(2)(ba)(i)	
Urgent Care Model		

Appendix B: List of Information Sources

Model	Document Title
Planned Care Model	Final Master Outsourcing Uplifts.xlsx
	FINAL Plus 2 20–02-2025 – Aide memoire – Supplementary Information Private Sector Outsourcing – HNZ00079260.docx
	Spreadsheet Updated pricing information_June 30.xlsx
Urgent Care Model	Remote site - cost estimate model - for Treasury.xlsx
	UCC Draft Model v7 - for review.xlsb
	UCC Summary.pdf
	Urgent Care Model Documentation - to accompany Deloitte review.docx

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