

NAMPA HEALTH

Type: Interviewer-led | Difficulty: Medium | Function: Digital | Sector: Healthcare | Stretch areas: Structuring, Judgement & Insights | Author: ex-McKinsey

Your client, Nampa Health, is a U.S.-based health insurer serving approximately 800,000 members. Over the past several years, Nampa Health has experienced membership growth broadly in line with industry peers. The company has also steadily increased its premium pricing, keeping pace with industry averages.

Despite these positive revenue trends, Nampa's overall profitability has slightly declined, whilst competitors have effectively translated higher revenues into stronger financial performance.

What factors are driving Nampa Health's weaker profit performance relative to its competitors, and how can the client turn this situation around?

ADDITIONAL INFORMATION

- The major costs for Nampa are payouts for successful insurance claims, and central operating costs (e.g. sales team, IT operations, central HR)
- Nampa wants you to focus solely on cost-reduction opportunities.
- The client is based in and operates exclusively in the United States
- During the period where Nampa has seen revenue increases but flat profits, the cost of providing healthcare and healthcare insurance has not increased in the US as a whole

NAMPA HEALTH – QUESTION 1

Dimension: Structuring

How would you structure your approach to this problem?

INTERVIEWER GUIDANCE

- While on the surface this is a profitability problem, a strong response should be tailored to the insurance market in particular. A more generic approach (e.g. fixed vs variable costs) will be insufficient to solve the problem.

PROPOSED SOLUTION

1. Increase in claims payouts
 - Has the quality of Nampa's member portfolio decreased?
 - Increased frequency of health claims per member
 - Increased severity and therefore cost of health claims per member
 - Have Nampa's policies become more generous?
 - Policy terms to pay out more for procedures than competitors
 - Policy terms to pay out in a wider or looser set of circumstances than competitors
 - Has Nampa been accepting claims more often than is appropriate? (E.g. less stringent checks on claim validity)
2. Increase in operating expenses
 - Customer acquisition costs (e.g., sales staff, commissions, marketing)
 - Claims processing and account management (e.g., headcount, IT)
 - Overhead

NAMPA HEALTH – QUESTION 2

Dimension: **Judgement & Insights**

We have gathered data on historic operating costs for Nampa Health over the past four years (share Exhibit 1). Based on this exhibit, what do you think are the major factors negatively impacting Nampa Health's profitability?

ADDITIONAL INFORMATION

- Nampa's claim numbers have grown by around 12% in total over the period. The volume of claims being processed has grown linearly with customer growth
- The 'claims ratio', i.e. the proportion of revenue paid out as claims has remained more or less constant for Nampa over the period, at 88%

INTERVIEWER GUIDANCE

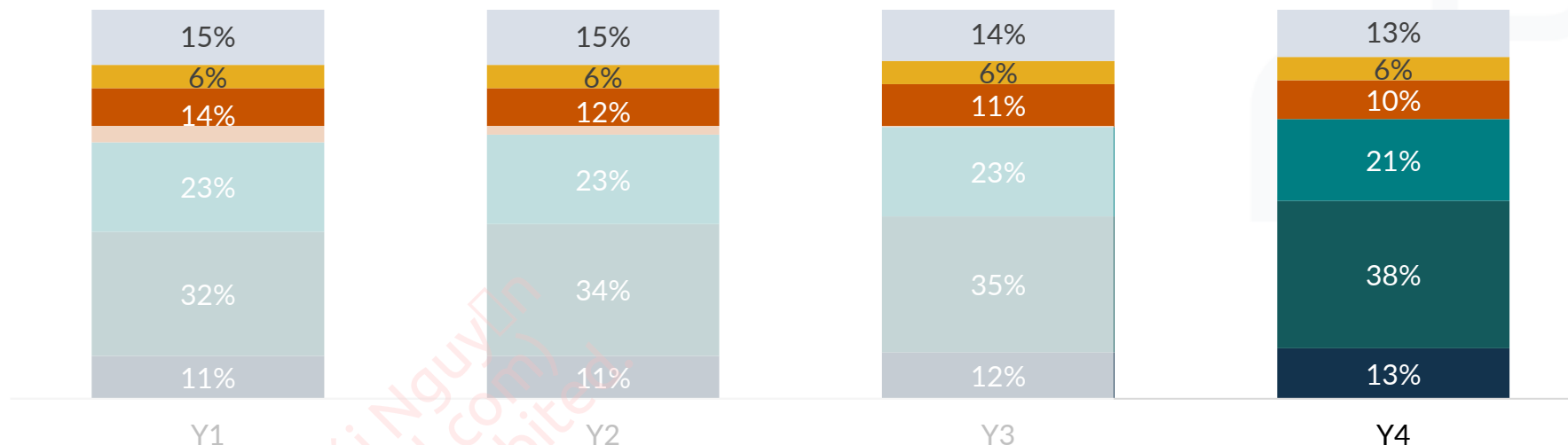
- Most candidates should pick up on the increase in claims processing costs. Strong candidates will also observe the decline in technology costs.

Private copy of Thái Nguyên
(thaicnh0729@gmail.com)
Copy and Sharing Prohibited.

NAMPA HEALTH – EXHIBIT 1

BREAKDOWN OF ANNUAL OPERATING EXPENSES FOR NAMPA HEALTH (PAST FOUR YEARS)

■ Other back office
 ■ Claims processing (1)
 ■ Central corporate functions (2)
 ■ IT systems (3)
 ■ Sales overhead
 ■ Sales commissions



Total operating expenses (\$m)

172.93

186.37

200.62

222.32

EBITDA (\$m)

150.15

154.33

152.71

148.21

EBITDA margin (%)

5.5%

5.3%

5.1%

4.8%

(1) "Claims processing" refers to cost for staff to review claims and determine validity

(2) "Central corporate functions" includes general management, finance, HR, risk

(3) "IT systems" cost includes running costs and investments in IT improvements, including contractor

NAMPA HEALTH – QUESTION 2

Dimension: Judgement & Insights

PROPOSED SOLUTION

- Claims processing is clearly the standout cost increase in the period.
 - Increased from ~\$55m in Y1 (\$172m X 32%) to ~\$84m in Y4 (\$222m X 38%) – an increase of around 50%. This represents a significant increase in **both absolute terms and as a share of operating expenses**.
 - An increase in processing cost would be expected as Nampa's customer and claims volume grows, but this **cost line has grown disproportionately**.
 - This suggests either Nampa has **increased salaries** of claim processing staff, **efficiency of processing has gone down**, or both.
- We can also see that IT costs have gone down, from ~\$24.2m in Y1 to \$22.3m last year.
 - This is surprising for a modern insurance business, where **technology should be playing an ever more central role** and further surprising alongside the growth in customer numbers.
 - It seems that Nampa Health has **underinvested in IT** at a crucial time when they experienced an increase in volume, potentially contributing to its failure to control claims processing costs.
- These points hint at the **over-spending on manual staff processing at the expense of potential automation** for claims processing.

Private copy of Thái Nguyễn
(thaicnh0729@gmail.com)
Copy and Sharing Prohibited.

NAMPA HEALTH – QUESTION 3

Dimension: Math

The client is considering reducing claims processing costs by automating data entry using text recognition and AI. They want to assess whether this IT investment will be worthwhile by evaluating the cost savings generated and the impact on their profit margin. The proposed IT tool would enable Nampa Health to fully automate data entry and processing for simple claims, which require minimal interpretation, and reduce the processing time for complex claims by half, as these still require some human interpretation, but the tool would primarily eliminate manual data entry.

Would it be a sensible economic decision for Nampa to adopt the automation solution?

ADDITIONAL INFORMATION

- The automation solution can be considered as entirely variable cost; no up-front capex investment needs to be considered

INTERVIEWER GUIDANCE

- The interviewer should encourage the candidate to brainstorm the data required to solve this problem. After the candidate has made a couple of suggestions for data points, share Exhibit 2.
- Perceptive candidates will note that the case for investment can be made based on simple claims alone. While an answer on complex claims has been provided below too, this is not strictly necessary to progress.

NAMPA HEALTH – EXHIBIT 2

CLAIMS PROCESSING OVERVIEW

Item	Unit	Value
Total number of claims	#	5 million
Time to classify a simple claim	Minutes	6.8
Time to classify a complex claim	Minutes	16
Proportion of claims that are simple	%	70%
Proportion of claims that are complex	%	30%
Hourly salary for worker handling simple claims	\$	40
Hourly salary for worker handling complex claims	\$	50
Cloud-based automation service: Yearly subscription costs	\$	1,500,000

* Unless otherwise specified, all values should be assumed to be annual

NAMPA HEALTH – QUESTION 3

Dimension: Math

PROPOSED SOLUTION

- To find out whether the automation solution is worthwhile, we should calculate the savings on both simple and complex claims from its adoption and compare this against the cost of automated product.
- Simple claims
 - We will save the entirety of the cost for simple claims. The total cost of this claims processing = [Total time to process claims X Labor Cost].
 - The number of claims overall is 5m. Of this, 3.5m are simple claims (5 X 70%).
 - The time to process this volume of claims is ~400,000 hours (6.8 mins * 3.5m claims = ~24m minutes). Hourly salary is \$40, so cost saved = 400,000 x \$40 = ~\$16m
- The subscription to the cloud-based automation service is \$1.5m. Even before calculating complex claims, we can therefore see that this solution pays for itself, generating a net benefit of \$14.5m [\$16m - \$1.5m]. Overall, the adoption of an automation solution therefore clearly makes sense for the client and will reverse its profit decline. It brings the client back to margins seen around Y1 in Exhibit 1.
- Complex claims
 - To consider complex claims too, our starting point is that there are 1.5m complex claims. Nampa will save 50% of the processing time on these.
 - Nampa will therefore save 200K hours on these (16 mins X 1.5m claims X 0.5 = 12m minutes). This results in a saving of 200,000 x \$50 = \$10m
- Total benefit = \$16m + \$10m = \$26m
- Net benefit = \$26m - \$1.5m = \$24.5m

NAMPA HEALTH – QUESTION 4

Dimension: Creativity

Nampa has shared more information about how they process claims.

Customers receive claim forms that they need to fill out when they require reimbursement. The customer then sends the filled-out form alongside the medical bills to Nampa. Each bill is then recorded into the system manually before being sent to a person in charge of verifying the validity of the claim. Any discrepancies or fraud suspicions are escalated. When the claim is approved, a copy of the approval is sent to another team member to action the transfer of funds for reimbursement.

Other than the introducing automation, what else could Nampa Health do to reduce the **cost of processing claims**?

Private copy of Thái Nguyễn
(thaicnh0729@gmail.com)
Copy and Sharing Prohibited.

NAMPA HEALTH – QUESTION 4

Dimension: Creativity

PROPOSED SOLUTION

- Process Simplification & Efficiency
 - Simplify claim forms to minimize errors
 - Provide clear customer instructions to improve form accuracy
 - Improve staff training for faster, more accurate processing
 - Tighten claim eligibility rules to reduce invalid submissions
 - Use batch processing to handle similar claims efficiently
 - Apply analytics to spot and address common errors
- External Collaboration
 - Partner with providers for direct billing
 - Integrate with provider electronic medical records for cleaner data exchange
- Labor Cost Reduction
 - Offshore parts of the claims team to lower-cost regions
 - Use flexible or temporary staffing during peak periods
 - Cross-train staff for better resource use

Private copy of Tran Nguyen
(thaicnh0729@gmail.com)
Copy and Sharing Prohibited.

NAMPA HEALTH – OPTIONAL QUESTION

Dimension: Digital expertise

Nampa is now keen to go ahead with the automation solution, but wants to think more carefully about implementation.

Can you think of any technical challenges the client would need to consider when implementing this solution? How should they mitigate these?

ADDITIONAL INFORMATION

- The proposed automation solution has two major components:
- Automated data entry by using text recognition to parse scans of claim forms and extract relevant data
- The use of AI and machine learning to determine whether a simple form should be approved or disapproved, based on training data from past approvals

INTERVIEWER GUIDANCE

- This question is open-ended and is meant to test the candidate's knowledge and judgment in a technology context. The candidate may focus on any aspect of the technical implementation.
- While in reality the client may buy a SaaS solution in full or in part, any suggestions from the candidate should be considered as in scope regardless.

Private copy of Thái Nguyễn
(thaicnh0729@gmail.com)
Copy and Sharing Prohibited.

NAMPA HEALTH – OPTIONAL QUESTION

Dimension: Digital expertise

PROPOSED SOLUTION

- Integration with the client's existing architecture
 - Particularly given its low IT investment level, the client likely has a large volume of legacy infrastructure.
 - Any solution will need to interface with this – whether to capture images or to draw upon past claims for training data.
- Hardware
 - We need to think carefully about how best to capture high-resolution scan images, such that the images are of sufficient quality and we do not see a high volume of manual work remaining in the process.
- Data privacy and compliance
 - There are strict regulations concerning the healthcare data of customers, and any non-compliance in this matter will have serious repercussions such as reputational damage and fines.
 - To mitigate this, we need to ensure that the solution and any potential vendors or partners are fully compliant with the relevant regulation.
- Talent & Capability
 - The client may not have large numbers of skilled IT professionals, and will need some even to integrate a SaaS product.
 - The client should consider hiring permanent or interim staff to fill in any skill gaps here.

Private copy of Thái Nguyễn
(thaicnh0729@gmail.com)
Copy and Sharing Prohibited.

NAMPA HEALTH – QUESTION 5

Dimension: Synthesis

What is your overall recommendation at this stage?

PROPOSED SOLUTION

- We were asked what was driving Nampa's profitability challenge, and how to turn the situation around.
- After examining the main cost drivers, we identified that the issue stems from a **disproportionately large increase in cost for claims processing operations**.
 - The proportion of costs linked to claims processing **increased from 32% to 38%** over the last 4 years.
 - The problem comes mainly from the fact that the client's claims processing operations are highly manual and therefore any increase in volume means an increase in labour cost.
 - At the same time, Nampa has been under-investing in IT and has thus failed to put in place the tools required to automate this part of the business.
- **We can turn the situation around by investing in automation of claims processing. Doing this will improve Nampa's EBITDA by over \$20m**, taking the firm back to its previous margin levels, based on our initial assessment.
- As a next step, we should explore other opportunities to reduce cost and create an implementation plan for the automated solution.