# Why don’t urban millennials insure?: Encouraging Malaysian Financial Resilience

THE BEHAVIOURAL INSIGHTS TEAM

PIDM

Perbadanan Insurans Deposit Malaysia

Protecting Your Insurance And Deposits In Malaysia

# Executive Summary

The Perbadanan Insurans Deposit Malaysia (PIDM) and the Behavioural Insights Team (BIT) collaborated to identify behavioural insights around insurance behaviours among urban millennials in Malaysia. This report discusses the key behavioural biases in insurance decisions; the behaviours and biases we observed among our Malaysian survey sample; and detail on key factors affecting uptake.

Research activities included an initial literature review on the behavioural barriers to insurance a survey to understand Malaysian participants' financial situation and their behavioural biases, and an online experiment to test how choice complexity affects insurance decision-making.

On the following page we present three key recommendations based on the findings of our research. Each recommendation references specific intervention ideas that we explored in our review of the literature.

Our project involved three research activities:

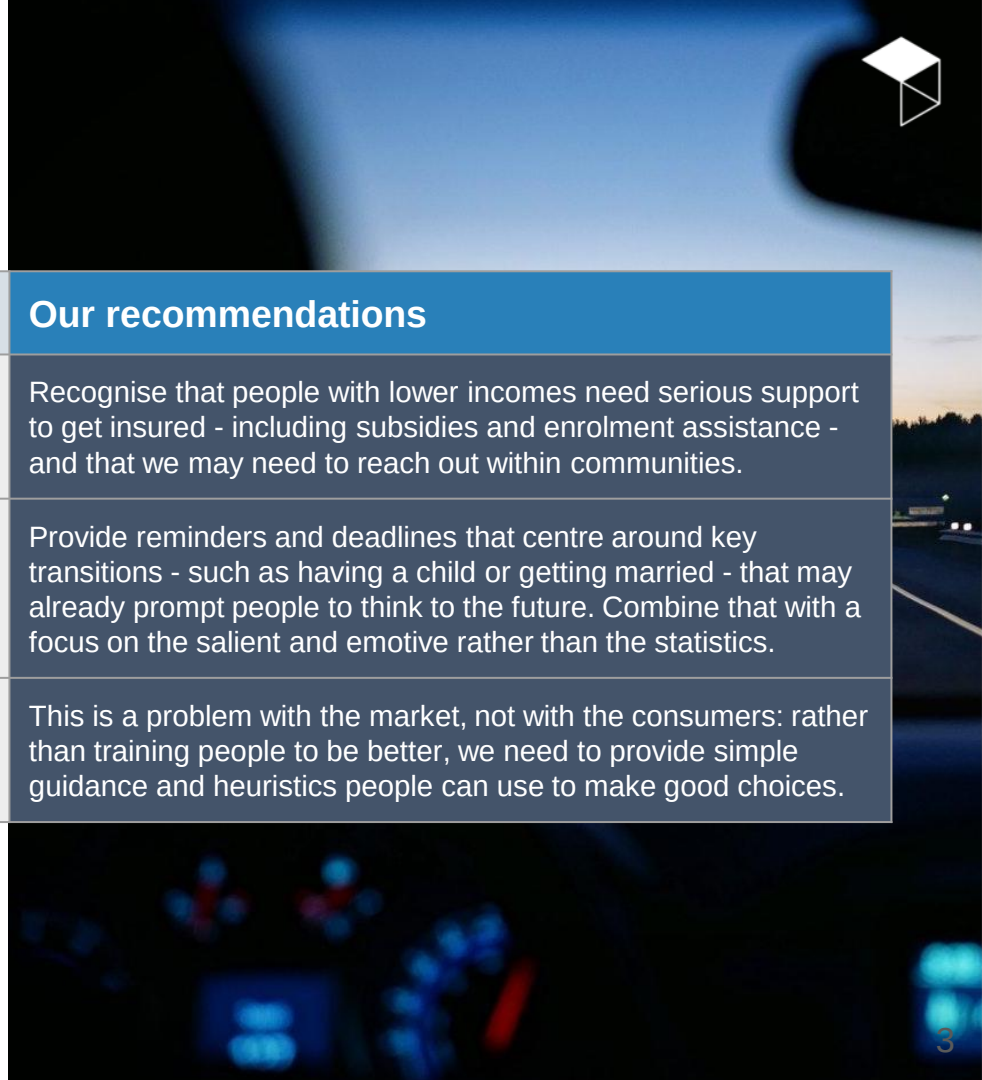
**Review:** Reading the behavioural science literature to understand what influences insurance decisions.

**Survey:** Surveying Malaysians to understand their current financial situation, and assess their biases.

**Experiment:** Testing whether biases identified in the literature affect Malaysians insurance decision choices.

# Our recommendations

| What we found | Our recommendations |
|---|---|
| We saw that people with lower incomes had higher present bias and lower insurance uptake. This means that they may face both structural and behavioural barriers to getting insurance. | Recognise that people with lower incomes need serious support to get insured - including subsidies and enrolment assistance - and that we may need to reach out within communities. |
| Rather than trying to get everyone to get insurance all the time, we can think cleverly about the moments in life when people already are more likely to get insurance - to need insurance - and focus our energies on these life transitions. | Provide reminders and deadlines that centre around key transitions - such as having a child or getting married - that may already prompt people to think to the future. Combine that with a focus on the salient and emotive rather than the statistics. |
| People struggle with decisions around insurance - they do not think there is enough good guidance, and many will disengage in the face of too many choices. | This is a problem with the market, not with the consumers: rather than training people to be better, we need to provide simple guidance and heuristics people can use to make good choices. |



# Background

Context and Research Aims

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# How can we explain low take up of insurance?

## Low take up of insurance in Malaysia

Many Malaysians may be inadequately protected in the case of unexpected life shocks, like serious illness or death. Less than half of Malaysians have life insurance,[1] and only around 54% have health insurance.[2] Despite growing incomes, insurance take-up rates have remained almost unchanged in the past five years.[1] Additionally, Malaysians aged 25-34 are the group which is the least well covered for health shocks or death of a partner[3].

Insurance is a crucial tool in mitigating unexpected life shocks. These shocks - whether hospital visits or job losses - can have lasting psychological, financial, and practical consequences for people. This is particularly true for those who already find it challenging to make ends meet. Why don't people insure?

## Behavioural barriers to insuring

Low levels of insurance amongst young adults is not unique to Malaysia. While there are rational reasons for the low uptake of certain types of long-term insurance - young people generally do not have a "bequest motive" and are aware of their better health relative to older population groups - it is unlikely to explain low insurance uptake entirely. Insurance decisions require us to make predictions about improbable (but highly significant) events, with no feedback on our choices. These are conditions where we would expect behavioural biases to strongly influence our decision making.

To inform interventions to encourage insuring amongst young urban Malaysians, PIDM worked with BIT to **understand which behavioural biases are likely to affect one's insurance choices**, and **what interventions might encourage people to insure themselves**.

[1] Krishnan, D. (2020). LIAM urges Malaysians to get life insurance coverage. *New Straits Times.* www.nst.com.my/news/nation/2020/09/623238/liam-urges-malaysians-get-life-insurance-coverage
[2] Ministry of Health Malaysia. (2019). *National Health and Morbidity Study 2019*.
[3] Redzuan, H., Yakob, R., & Isa, Z. (2016). Underinsurance in Malaysia: The application of the Monte Carlo simulation. *Jurnal Pengurusan (UKM Journal of Management)*, *47*

# Defining behavioural insights within behavioural science

## What is behavioural science?

Behavioural science seeks to uncover the mechanisms of human decision-making. Drawing from social psychology, behavioural economics, and other cognitive science disciplines, we see that our decision-making is a complex process that can be influenced by key elements in the environment.

For example, the “cocktail party effect” describes our ability to focus our attention. Imagine you are in a crowded room full of chatter. You can nevertheless focus your attention on a single conversation, if you so choose. However, if somebody was to shout your name from across the room, that would divert your attention. This - our brain’s ability to re-allocate our attention to information that appears specifically relevant to us - is part of why so many marketing emails now start with your name!

## What are behavioural insights?

A “behavioural insight” is knowledge about the way people make decisions. A behavioural insights (BI) approach involves taking findings from the science and using them to design better processes and policies. For example, once you know that people pay more attention to information that is specifically relevant to them, you can make smart decisions around what information to include: like someone’s name.

# Project Overview & Research Aims

Our project involved three research activities:

**Review:** Investigating the behavioural science literature in the context of Malaysia and other countries with similar characteristics, to understand which behavioural biases are likely to affect insurance take-up, and what might combat these biases.

**Survey:** Surveying young urban Malaysians to understand existing insurance preferences and purchases, and to estimate behavioural biases using standardised measures.

**Experiment:** Testing whether biases identified in the literature affect Malaysians insurance decisions. Participants were randomly allocated to see slightly different information, followed by a set of questions that is the same for all.

## Research Aims

To understand the impact of psychological biases on insurance decisions, and how behavioural science might nudge more young Malaysians to take up insurance, as demonstrated through a framed field experiment.

## Why young urban Malaysians?

The study chooses to focus on this group as they represent both potentially large present and future bases of insurance consumers. The urban population tends to have generally higher income affordability, access to insurance providers and financial literacy, which means that practical issues should be less of a barrier to the uptake of insurance. Hence, understanding their preferences and behaviours is essential in improving insurance penetration in Malaysia.

# Insurance principles

Behavioural principles applicable to insurance uptake

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# Five BI principles for insurance

Reviewing the behavioural science literature, we identified five behavioural principles that may influence the insurance decision behaviour of Malaysians.

For each, we provide an overview of the behavioural principle and give examples of how they influence decisions around insurance. We then provide examples of how these principles have been applied to increase insurance uptake. The following pages summarise our findings. For more details on the interventions and contextually relevant studies, refer to the main literature review report.

From the review, two of these principles were identified to be tested in the experiment for their potential use for interventions. Two behavioural principles were measured in the survey. One principle was covered only in the review.

| Principle | Method of study |
|---|---|
| We are bad at assessing risk | Measured in SURVEY |
| We avoid decisions, particularly difficult ones | Tested in EXPERIMENT |
| We take our cues from others | Tested in EXPERIMENT |
| We are guided by key timepoints | Reviewed in LITERATURE |
| We value the present more than the future | Measured in SURVEY |

Measured in SURVEY

# Principle 1: We are bad at assessing risk

**Behavioural Barrier**: The consensus amongst psychologists historically has been that we tend to overestimate small risks.[3] However, this does not fit with observed insurance behaviours, which show a tendency to under-insure low probability events relative to high probability events.[4] One thing that is clear across studies is that many find estimating risk difficult.

**Relevance**: Our **struggle to compute risk** may hinder insurance decisions -

- We may be over-optimistic on low probability risks: for example, there are low take up rates for disaster insurance,[5] even though it is often subsidised, relative to extended warranties or cell phone insurance.[6]
- People may assess probabilities using the availability heuristic[7] - judging the likelihood of an event based on how easily we can recall an example of it happening. This has been demonstrated in the insurance space by studies which document a spike in flood insurance after a flood event in the community.[8]


[3] Gonzalez, R., & Wu, G. (1999). On the shape of the probability weighting function. Cognitive psychology, 38(1), 129-166.
[4] Browne, M. J., Knoller, C., & Richter, A. (2015). Behavioral bias and the demand for bicycle and flood insurance. Journal of Risk and Uncertainty, 50, 141–160.
[5] Kunreuther, H., & Pauly, M. (2004). Neglecting disaster: Why don't people insure against large losses?. Journal of Risk and Uncertainty, 28(1), 5-21.
[6] Sydnor, J. (2010). (Over) insuring modest risks. *American Economic Journal: Applied Economics*.
[7] Folkes, V. S. (1988). The availability heuristic and perceived risk. Journal of Consumer research, 15(1), 13-23.
[8] Gallagher, J. (2014). Learning about an infrequent event: evidence from flood insurance take-up in the United States. *American Economic Journal: Applied Economics*, 206-233.

Measured in SURVEY

# Principle 1: We are bad at assessing risk

**Interventions:**

- **Provide calculation aids to help people calculate risk** - Giving consumers a short tutorial on computing annual cost of insurance plans and then providing them with an online calculator substantially reduced the difference in value between the plan they chose and the best plan in this study.[9] Furthermore, combining this with a smart default, which pre-selected the best deal, resulted in improvements equivalent to the decision-making of MBA students.
- **Use images and examples to make risks more salient** - Our assessment of risk is based more on an emotional response around salience than statements about numeric risk, and focusing on this emotional response is likely to increase insurance uptake. One study found that participants Willingness to Pay (WTP) for flood insurance increased by nearly 25% when they received information describing damages from famous recent cyclones, specific at-risk populations, and images of flooding.[10]
- **Help people to experience insurance trade-offs** - We are bad at estimating risk, and we also have few opportunities to do it where we receive feedback on our decision, making learning hard. One study invited Chinese farmers to participate in a laboratory insurance game which simulated several cycles of insurance decision and payoffs.[11] Those who participated in the game were 46% more likely to purchase real crop insurance when offered, and this was attributed to their game experience.

[9] Johnson, E. J., Hassin, R., Baker, T., Bajger, A. T., & Treuer, G. (2013). Can consumers make affordable care affordable? The value of choice architecture. *PloS one*, *8*(12), e81521.
[10] Bradt, J. (2019). Comparing the effects of behaviorally informed interventions on flood insurance demand: an experimental analysis of 'boosts' and 'nudges'. Behavioural Public Policy, 1-31.
[11] Cai, J., & Song, C. (2017). Do disaster experience and knowledge affect insurance take-up decisions?. *Journal of Development Economics*, *124*, 83-94.

Tested in EXPERIMENT

# Principle 2: We avoid decisions, particularly difficult ones

**Behavioural Barrier**: We avoid decisions, particularly when they are difficult, and tend to follow the path of least resistance - which is often to do nothing. Alternatively, we make a decision, but just stick with the "default" option - even where there may be benefits to considering alternatives.[12]

**Relevance**: **Avoiding decisions** and **sticking with the default** are both common in insurance decisions -

- A US study which looked at employees at a large company who had to choose between multiple insurance plans, found that employees rarely changed their plan despite the costs and provisions of the plans changing over time.[13]
- Our preference to avoid difficult decisions is exacerbated when a decision is difficult to optimise - this is partly due to "choice overload".[14] That is, when faced with a choice that involves a number of options, consumers may opt simply not to make a choice, and maintain the status quo, or make snap decisions.
- Choice overload is exacerbated when consumers are faced with time constraints, complex sets of choices, or lack expertise in evaluating the relative cost and benefits of the different options.[15] The last two factors are likely to be especially relevant in the case of insurance - the features of health and life insurance plans can be complex and are poorly understood by consumers; and consumers rarely make decisions about these products, meaning they lack experience.

[12] Samuelson, W., & Zeckhauser, R. (1988). Status quo bias in decision making. *Journal of risk and uncertainty*.
[13] Handel, B. R. (2013). Adverse selection and inertia in health insurance markets: When nudging hurts. *American Economic Review*, *103*(7), 2643-82.
[14] Iyengar, S. S., & Lepper, M. R. (2000). When choice is demotivating: Can one desire too much of a good thing?. *Journal of personality and social psychology*, *79*(6), 995.
[15] Chernev, A., Böckenholt, U., & Goodman, J. (2015). Choice overload: A conceptual review and meta-analysis. *Journal of Consumer Psychology*, *25*(2), 333-358.

Tested in EXPERIMENT

# Principle 2: We avoid decisions, particularly difficult ones

**Interventions:**

- **Use subsidies to overcome status-quo bias** - Because we tend to stick with our existing decision, incentives can be used to increase insurance sign-up, with many customers staying on the plan once the discount is removed. Two separate studies, in Indonesia[16] and the Philippines,[17] found that temporary incentives to join an insurance scheme had long-run effects on enrolment.
- **Help individuals to sign-up to insurance schemes** - Helping individuals to sign-up can also improve initial enrolment by reducing friction costs, with effects being sustained in the long-run. Both the studies mentioned above tested application assistance and found significant increases in enrolment and also found these effects to persist over the long term.
- **Provide tailored information on costs and benefits** - Giving consumers generic information on insurance options may be too much for consumers to fully process, leading them to avoid the decision altogether. Instead, personalised information can help to reduce this complexity. One study, in the US, which sent personalised letters highlighting costs of their current program compared to a cheaper alternative increased switching rates by 66% compared to a generic letter.[18]

[16] Banerjee, A., Finkelstein, A., Hanna, R., Olken, B. A., Ornaghi, A., & Sumarto, S. (2019). The challenges of universal health insurance in developing countries: Evidence from a large-scale randomized experiment in Indonesia (No. w26204). National Bureau of Economic Research.
[17] Baillon, A., Capuno, J. J., O'Donnell, O., Tan, J. C. R., & van Wilgenburg, K. (2019). Persistent Effects of Temporary Incentives: Evidence from a Nationwide Health Insurance Experiment.
[18] Kling, J. R., Mullainathan, S., Shafir, E., Vermeulen, L. C., & Wrobel, M. V. (2012). Comparison friction: Experimental evidence from Medicare drug plans. *The quarterly journal of economics*, *127*(1).

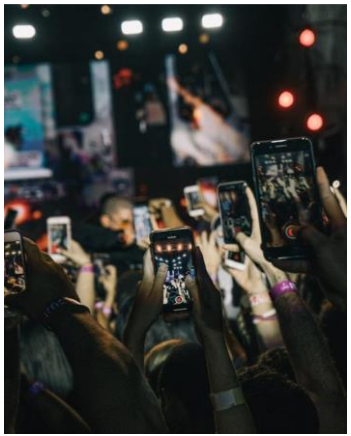
Tested in EXPERIMENT

# Principle 3: We take our cues from others

**Behavioural Barrier**: We judge how we should act based on what others are doing -- the descriptive social norm. This is often sensible: if everyone is running in one direction, for example, it's a good indication that you should do the same.

**Relevance**: In Malaysia it is **common to not be insured** -

- Less than half of Malaysians have life insurance[19] and, the figures for health insurance are similar, with only 54% of Malaysians covered.[20] If my peers aren't insured, I may assume I do not need insurance.
- If no one talks about insurance, even if our peers are insured we may not realise. In the absence of information, we are more likely to assume that other people behave like us: the "false consensus" effect.[21]
- Although we are primarily led by what others do, we can be influenced by what others say is right to do -- an injunctive social norm. Our peer group can be powerful messengers to influence our behaviours.



[19] Krishnan, D. (2020). LIAM urges Malaysians to get coverage. New Straits Times. www.nst.com.my/news/nation/2020/09/623238/liam-urges-malaysians-get-life-insurance-coverage
[20] Ministry of Health Malaysia. (2019). National Health and Morbidity Study 2019.
[21] Ross, L., Greene, D., & House, P. (1977). The "false consensus effect": An egocentric bias in social perception and attribution processes. Journal of experimental social psychology, 13(3), 279-301.

Tested in EXPERIMENT

# Principle 3: We take our cues from others

**Interventions:**

- **Intensively target key individuals -** Encourage few people with lots of social links to buy insurance and recruit their friends as we are disproportionately influenced by those close to us. A study on farmers found that intensive information sessions had substantial impacts on the insurance uptake of their friends, as well as on the attendee themselves.[22] Furthermore, those who were more central to the social network in the village had a greater impact on others' behaviour.
- **Prompt conversations about insurance -** Receiving information from peers who already insure is likely to increase uptake, and these conversations are more likely to be impactful when multiple members of a group receive the information at the same time.[23]
- **Use mandates to shift the social norm -** Because our insurance purchases are influenced by societal norms, soft mandates for a basic level of insurance coverage could have a larger impact on take-up than the penalties alone would suggest.[24]

[22] Cai, J., De Janvry, A., & Sadoulet, E. (2015). Social networks and the decision to insure. American Economic Journal: Applied Economics, 7(2), 81-108.
[23] Chemin, M. (2018). Informal groups and health insurance take-up evidence from a field experiment. *World Development*, *101*, 54-72.
[24] Baicker, K., Congdon, W. J., & Mullainathan, S. (2012). Health insurance coverage and take-up: Lessons from behavioral economics. *The Milbank Quarterly*, *90*(1), 107-134.

Reviewed in LITERATURE

# Principle 4: We are guided by key timepoints

**Behavioural Barrier**: While we have a tendency to stick with the default, and not revisit them once they are made, certain key timepoints can act as a driver for behaviour change. These timepoints act as temporal landmarks that separate the passage of time into notionally separate segments. These different time segments are viewed differently - a new time segment represents a new opportunity to commence a behaviour, known as the “fresh start effect”.[25]

**Relevance**: We can target **key times to encourage insurance** -

- Many aspirational behaviours such as the pursuit of goals and positive health behaviours appear to spike after key landmarks such as the start of the year, the start of the month, or birthdays.
- Similarly, externally imposed deadlines can encourage behaviour, as they create the motivation to complete a task.[26] Hence, a proximate deadline to take action such as taking up insurance, or a time-limited offer (such as a discount or subsidy), can spur people to take action now rather than later.

[25] Dai, H., Milkman, K. L., & Riis, J. (2014). The fresh start effect: Temporal landmarks motivate aspirational behavior. *Management Science*, *60*(10), 2563-2582.
[26] Amabile, T. M., DeJong, W., & Lepper, M. R. (1976). Effects of externally imposed deadlines on subsequent intrinsic motivation. *Journal of personality and social psychology*, *34*(1), 92.

Reviewed in LITERATURE

# Principle 4: We are guided by key timepoints

**Interventions:**

- **Provide reminders, especially at key moments** - Reminders can be an effective way of increasing uptake, and can work at any time. Two studies from the Philippines found that door to door sales contact, after providing information about insurance, increased insurance take up.[27] This can be enhanced further by prompting people at the start of the calendar or financial year, or around their birthday to take up insurance. Given that life insurance is generally linked to having dependents, it may also be fruitful to prompt young people when they get married or have children.

- **Use deadlines to spur behaviour** - Creating deadlines, particularly for the take up of special offers, can drive behaviour. In case of Insurance, where adverse selection can drive up costs of the program, one study found that the existence of a deadline to a full-subsidy offer helped encourage healthy individuals to enrol, thereby offsetting some of the cost of the subsidy.[28]

[27] Zwane, A. P., Zinman, J., Van Dusen, E., Pariente, W., Null, C., Miguel, E., ... & Duflo, E. (2011). Being surveyed can change later behavior and related parameter estimates. *Proceedings of the National Academy of Sciences*, *108*(5), 1821-1826.

[28] Banerjee, A., Finkelstein, A., Hanna, R., Olken, B. A., Ornaghi, A., & Sumarto, S. (2020). Subsidies and the dynamics of selection: Experimental evidence from Indonesia's National Health Insurance. Cambridge, MA: Abdul Latif Jameel Poverty Action Lab.

Measured in SURVEY

# Principle 5: We value the present more than the future

**Behavioural Barrier**: When faced with a decision, we tend to put more emphasis on the costs and the benefits incurred today than those in the future. As well as downweighting payoffs in proportion to how far into the future they will happen, we also put a sizeable downweight on anything that is not immediate--an effect known as present bias.[29] [30]

**Relevance**: Insurance policies require us to make this **present-future tradeoff** -

- Because the consumer is present biased, they are likely to place more emphasis on the costs they pay today, and downweight the benefits that insurance can provide in the future, making insurance offers seem less favourable or shifting consumers to lower-coverage options.[31]
- Present bias also appears to be exacerbated by poverty. When under financial pressure we focus even more on what is needed to get through that day, and place less of an emphasis on future payoffs.[32] This could explain the lower take-up of insurance amongst low income groups.
- However, some choices that appear to be driven by present bias in cases of poverty may simply be the result of liquidity constraints. A study on offering crop insurance to farmers in Kenya found that take up 14 times higher if payments were delayed to harvest time instead of being upfront. A follow up study which only tested the effects of present bias found a more modest 4 times higher take up - indicating that both present bias and liquidity are key factors.[33]

[29] Loewenstein, G. (1996). Out of control: Visceral influences on behavior. *Organizational Behavior and Human Decision Processes, 65*(3), 272-292.
[30] Thaler, R. (1981). Some empirical evidence on dynamic inconsistency. *Economics Letters*, *8*(3), 201-207.
[31] Abaluck, Jason, and Jonathan Gruber. 2011. "Choice Inconsistencies among the Elderly: Evidence from Plan Choice in the Medicare Part D Program." *American Economic Review*, 101 (4): 1180-1210.
[32] Mani, A., Mullainathan, S., Shafir, E., & Zhao, J. (2013). Poverty impedes cognitive function. *Science, 341*(6149), 976-980.
[33] Casaburi, L., & Willis, J. (2018). Time versus state in insurance: Experimental evidence from contract farming in Kenya. *American Economic Review*, *108*(12), 3778-3813.

Measured in SURVEY

# Principle 5: We value the present more than the future

**Interventions:**

- **Provide delayed or incremental payment options** - Present bias applies when some costs or payoffs happen in the present, and others in the future. If all costs and payoffs are accrued in the future, this bias does not apply. As demonstrated in the Kenyan crop insurance study, delaying payments still led to an increased take up of insurance.[34] An alternative would be to offer smaller monthly payments, rather than an upfront cost, so that more of the cost is accrued in the future as demonstrated by this study in Mexico.[35]
- **Frame insurance as an opportunity to commit** - If people are present biased, but they are also aware that they are, they may seek opportunities to commit to giving up money now for benefits in the future. Insurance offers such an opportunity but is typically not framed as such. It is possible that making this “commitment device” feature more apparent is an effective way of increasing insurance uptake.

[34] Casaburi, L., & Willis, J. (2018). Time versus state in insurance: Experimental evidence from contract farming in Kenya. *American Economic Review*, *108*(12), 3778-3813.
[35] Bauchet, J., & Morduch, J. (2019). Paying in pieces: A natural experiment on demand for life insurance under different payment schemes. *Journal of Development Economics*, *139*, 69-77.

# Survey and experiment

Measuring and testing out BI principles around insurance decisions

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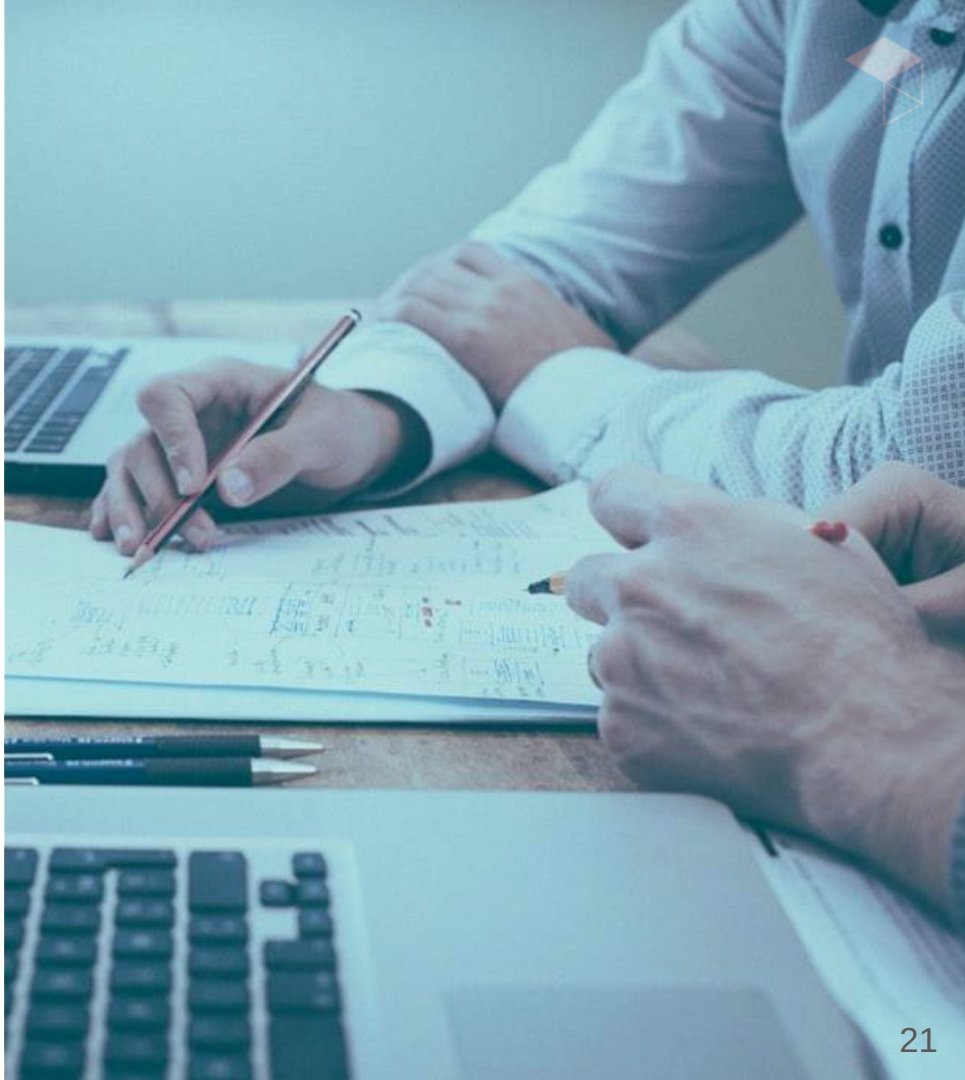
# We ran an online survey

We recruited 1,025 urban Malaysians aged 24-40 to an online survey that took approximately 10 minutes to complete. We used survey questions to identify demographic characteristics, and also to measure two behavioural biases related to our six BI principles: present bias and risk literacy.

At the end of the survey, the same participants were then randomised into three different conditions: each group was presented with an insurance decision, with minor changes in the presentation of the opportunity. This experiment aimed to measure two further BI principles in action -- the effect of choice complexity and social information

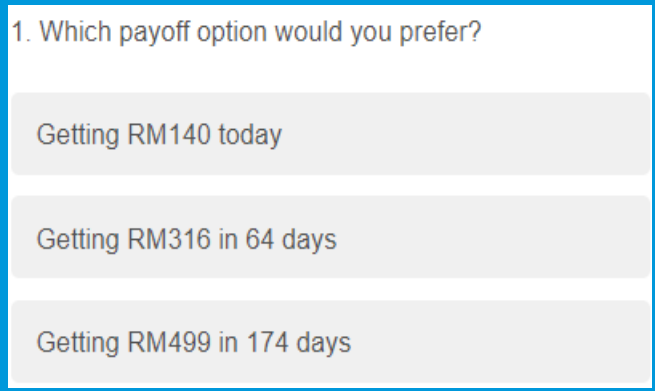
**This enabled us to validate 4 of the 5 principles identified in our literature review with a Malaysian population.**



# Surveying present bias

We would expect that insurance decisions would correlate strongly with demographics: people with less income will almost certainly have lower rates of insurance. However, we also wanted to understand the relationship between insurance take up and present bias, or insurance take up and risk assessment.

For present bias, we used a validated instrument called ToaD that presents a series of options to receive money sooner or later. Over several iterations, this instrument calibrates a present bias measure based on reported preferences. This is identical to the method used in the BIT-PIDM study on saving behaviours - see here.

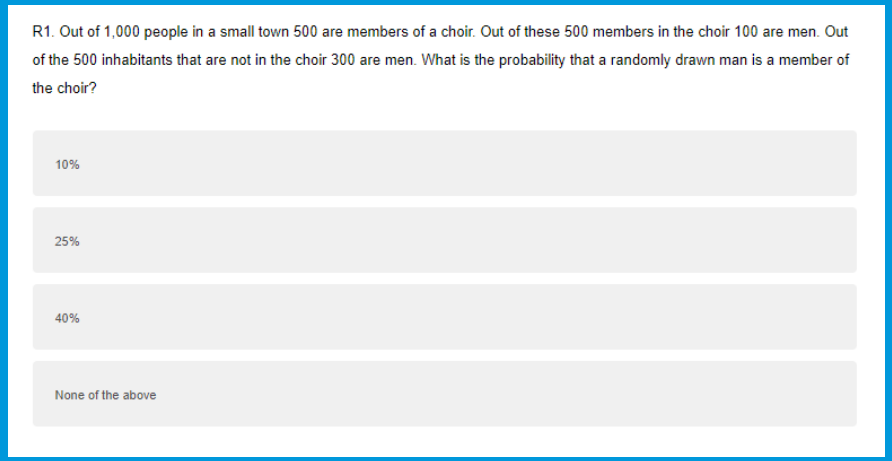


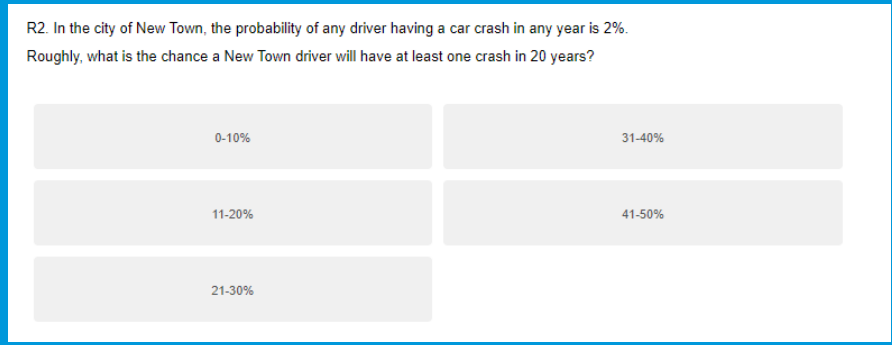
# Surveying risk literacy

To assess risk literacy, we asked two questions. Both questions are aimed at assessing the ability of the respondents to calculate risk given the right information.

The first question, above, is adapted from the Berlin Numeracy Test, which is a strong predictor of comprehension of everyday risks. However, the “BNT” is designed for “highly educated samples”, and additionally, we are only using one question from the full BNT to manage the total time required for the survey.

The second question, below, was of our own invention, and aims to gauge understanding of a low-probability high-impact event. It is a test both of whether respondents could compute probabilities, and indeed, whether they would even try to do so.



# Testing biases

We decided that some of the cognitive biases within the five BI principles we identified were best measured using a laboratory experiment using our survey participants.

As part of this experiment, at the end of the survey, respondents were presented with a scenario (“Imagine that you just had a newborn child, and do not have critical illness coverage…”) and a menu of insurance policies. They were then asked to first choose whether they would take up any of the insurance plans and then, if they had said “Yes”, which plan they would choose. Our key outcome here were people opting to disengage by choosing “I don’t know” at the first step.

The two main experimental arms in the intervention are presented on the right and detailed in the subsequent slides.

| Experimental Arm | Hypothesis |
|---|---|
| **Control** *Base condition* | This would capture the likelihood of insurance disengagement in the absence of intervention, i.e. our experimental baseline. |
| **Choice Complexity** *We disengage when presented with complex choices* | When it comes to important financial decisions such as choosing an insurance policy, we often fear making the wrong decision. The more complex the choice set, the more likely we are to disengage. |
| **Social Information** *We are influenced by others like us* | We judge how we should act based on what others are doing -- therefore, people are more likely to choose an insurance policy if it is well rated and many others have chosen the same policy. |

# Our findings

Results from survey and experiment

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# What influences behaviours around insurance take-up?

Behaviours and biases

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# We surveyed 1,025 young urban Malaysians

Participants were recruited through an online panel provider. We used quotas to approximate the demographics of the general population in Malaysia. Participation was paid.

| Gender | Participants |
|---|---|
| **Male** | 48.3% (495) |
| **Female** | 51.7% (530) |

| Age | Participants |
|---|---|
| **24-34** | 68.4% (701) |
| **35-40** | 31.6% (324) |

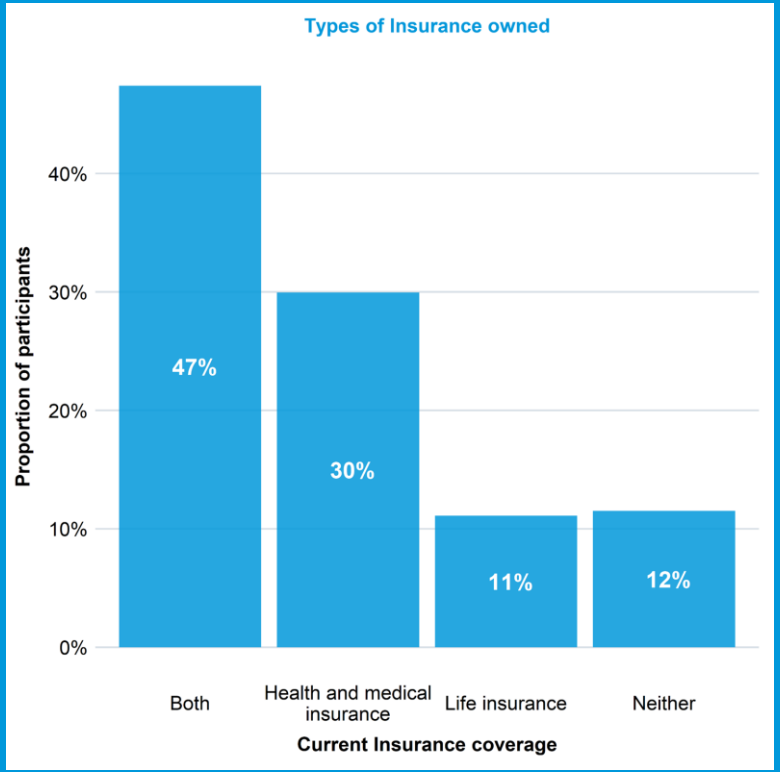
| Ethnicity | Participants |
|---|---|
| **Bumiputera/Malay** | 55.8% (572) |
| **Chinese** | 38.0% (389) |
| **Indian/Sri Lankan** | 3.9% (40) |
| **Others** | 2.3% (24) |

| Region | Participants |
|---|---|
| **Central** | 50.5% (518) |
| **Northern** | 12.1% (124) |
| **Southern** | 21.9% (224) |
| **East Coast** *(exc. Sabah, Sarawak)* | 7.1% (73) |
| **Sabah and Sarawak** | 8.4% (86) |

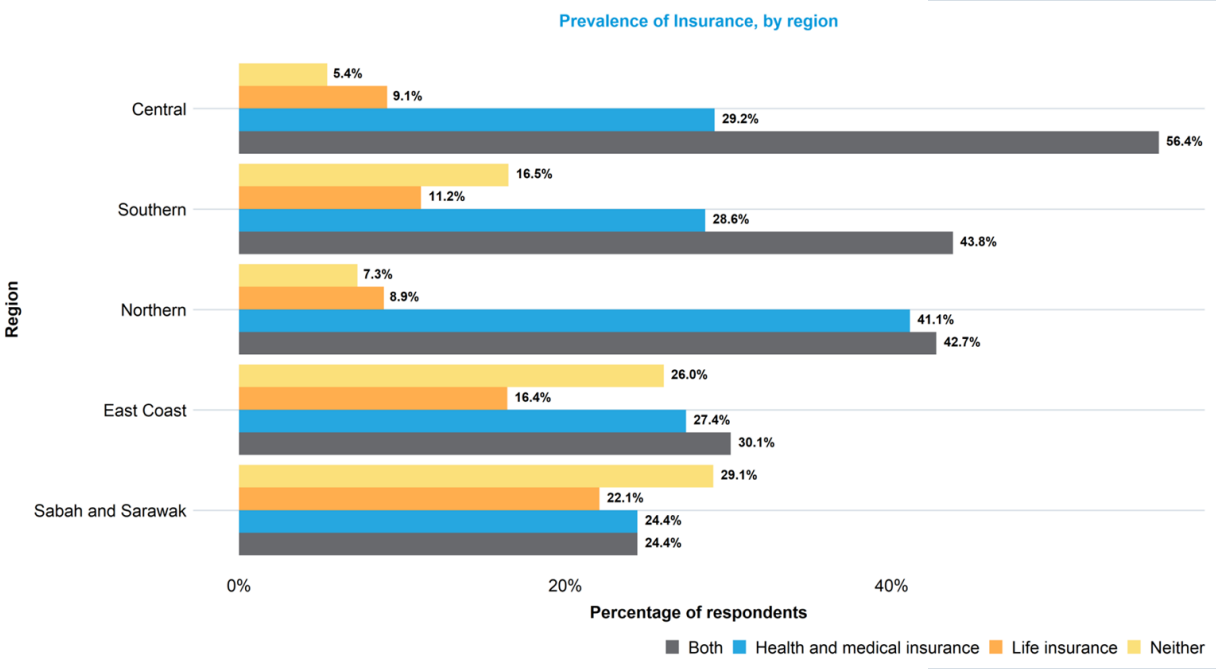
# We asked people about their existing insurance

We asked participants to tell us about their existing insurance plans. Whilst we should not assume all responses are entirely accurate, they provide a useful indication of current insurance coverage amongst young urban Malaysians.

We specifically asked participants to only report insurance that they had bought and not include insurance that was purchased for them by their employer. We see that 42% of our sample did not have life insurance coverage, while 23% did not have health insurance. While these numbers are lower than the population-level prevalence, they still represent an important policy concern as it suggests that many young urban Malaysians may be inadequately equipped to deal with shocks.



# Prevalence of insurance (by region)



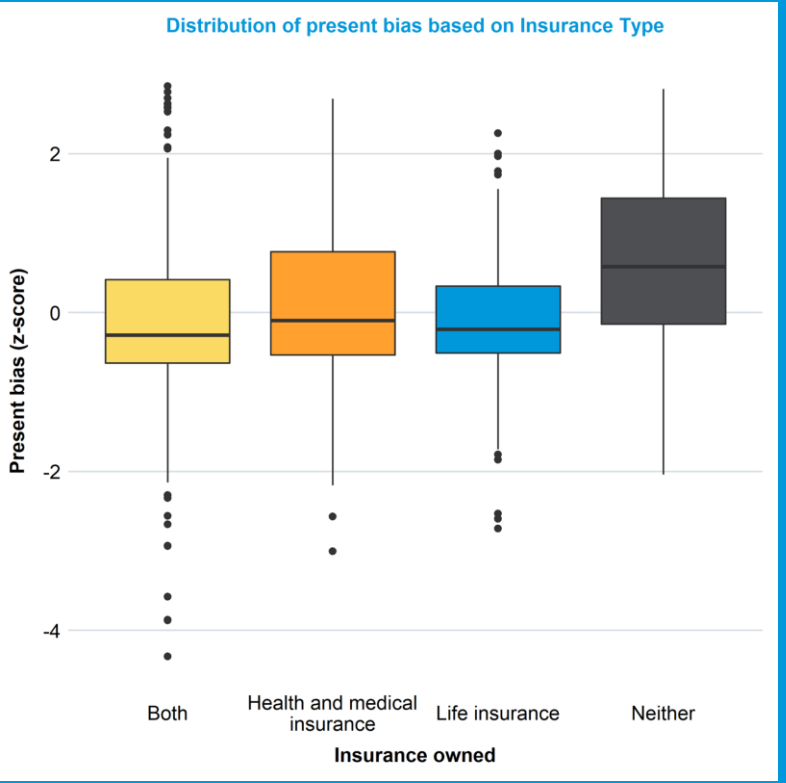

*There appears to be a divergence in insurance uptake across the regions. The Central region (e.g. Kuala Lumpur), has the highest proportion of respondents (56.4%) with both life and HM insurance. Conversely, Sabah, Sarawak and the East Coast (e.g. Pahang) regions have the highest levels of uninsured respondents (29.1% and 26.0% respectively).*

*Given the general income disparities across these regions, this finding supports policymakers taking different approaches across the country.*

# Does higher present bias lead to lack of insurance?

We graphed the relationship between reported insurance and the biases that we measured in our survey. On the right, you can see the relationship between present bias - a measure of the degree of preference for rewards now rather than later - and insurance coverage. We see that the respondents who did not report having any insurance have higher scores of present bias. This may suggest that there is a relationship between cognitive biases identified in the behavioural science literature, and real financial behaviours of Malaysians.

However, it is worth noting that we also observe slightly higher present bias amongst individuals who report lower monthly incomes. It should be clear that the causality of this relationship is uncertain, but we would expect reduced income to increase present bias based on other studies. It may be that having less income is the causal factor affecting both present bias *and* insurance take-up.

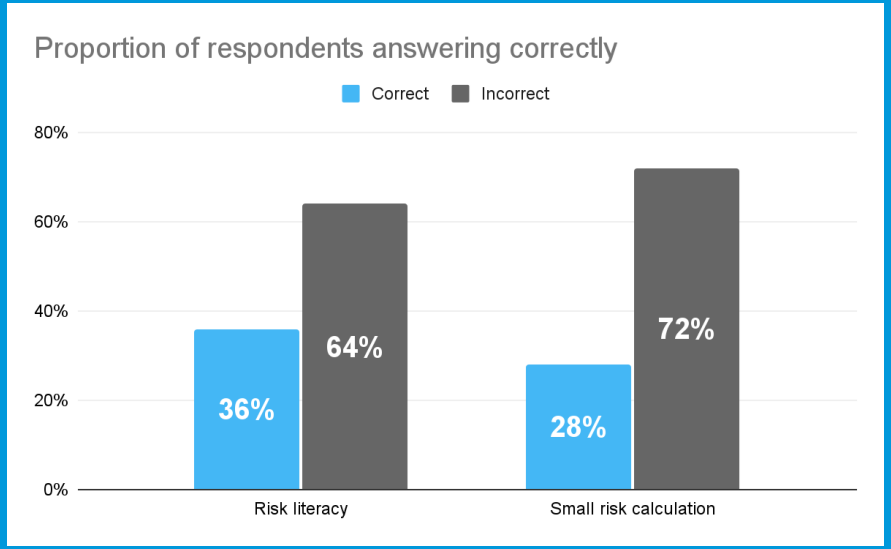


# Risk literacy may not strongly predict insurance uptake

On the right you can see a chart showing the distribution of responses for our two risk literacy questions.

We did check whether there was a relationship between the first measure of risk literacy - from the Berlin Numeracy Test - and likelihood of having any kind of insurance. We see a positive but non-statistically significant coefficient of answering the risk literacy question correctly and likelihood of having any kind of insurance. In the literature we found that better knowledge of risk should be correlated with higher insurance uptake and we do see evidence, albeit not as strong as we expected.

One possibility is that insurance risk is domain-specific, and a general risk literacy measure may not accurately capture a relationship with insurance uptake as intended.

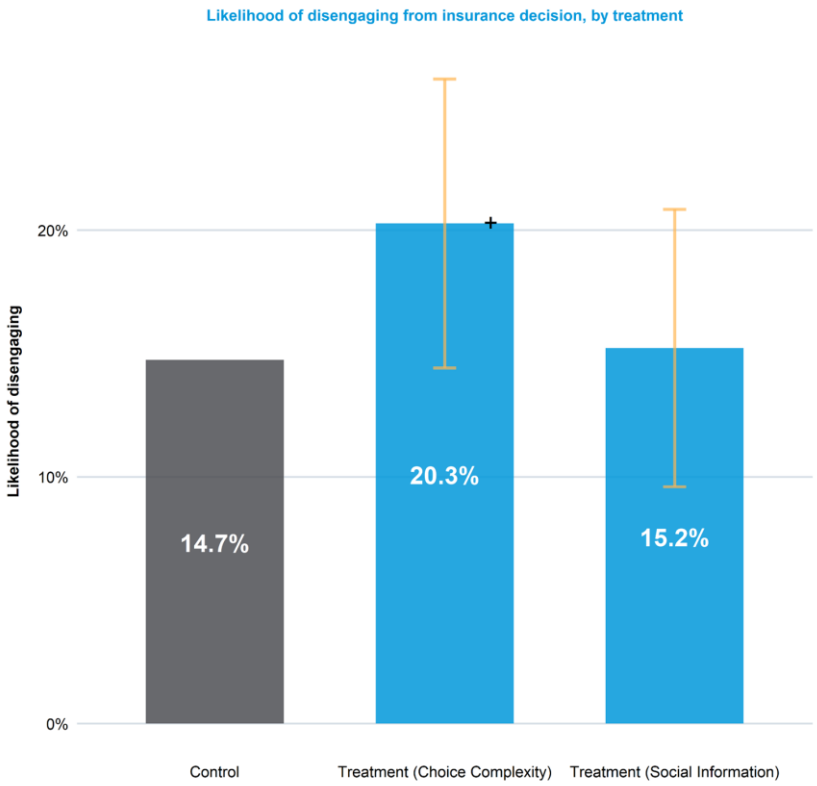


# How does the choice environment affect insurance uptake?

Analysis for the experiment

THE BEHAVIOURAL INSIGHTS TEAM

# Increasing choice complexity leads to more disengagement




Choice complexity is associated with more respondents disengaging from the insurance decision, compared to our control group. This difference was statistically significant according to our pre-specified OLS regression ($p = 0.042$) but not in our pre-specified logistic regression ($p = 0.064$). It does not hold which adjusting for multiple comparisons. As such, while our results do not meet the significance threshold of an academic journal, we consider this sufficient evidence to suggest an effect to be considered in policy thinking.

There were no significant differences observed for the ‘Social Information’ arm.

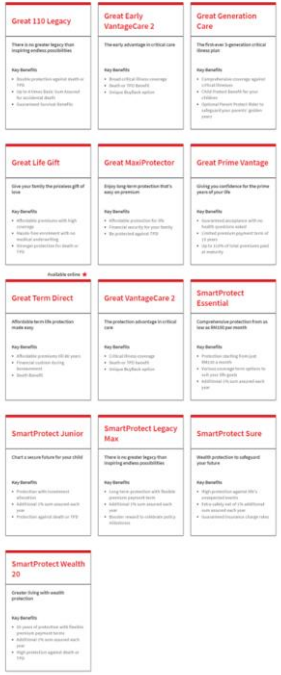
Additionally, we observe that Chinese participants were more likely to disengage compared to other ethnicities. Those in the lower-income range of RM1-2500 were more likely to disengage as well, aligning with our other findings on how income appears to influence one’s insurance behaviour.

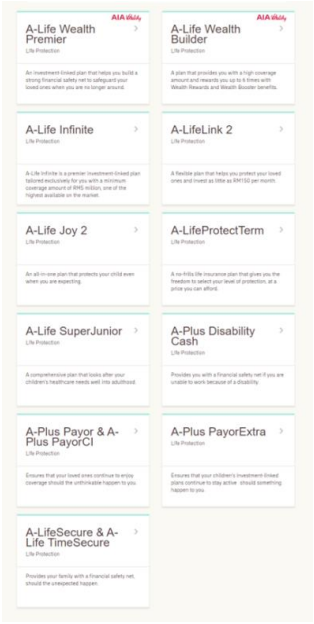
# How much choice is too much choice?

To help explain why we think that this result is important, we retrieved three examples from different insurers' websites of the number of life insurance options available - see right.

Here we have a multitude of options, each with a great deal of attached information. If what we see in our experiment results is a true effect, it may be that this choice complexity is dissuading people from insurance.

Insurers and brokers are not to blame here: it is reasonable to think that the best way to ensure consumers get the right choice for them is to give them options and information. However in practice this may discourage engagement at all.

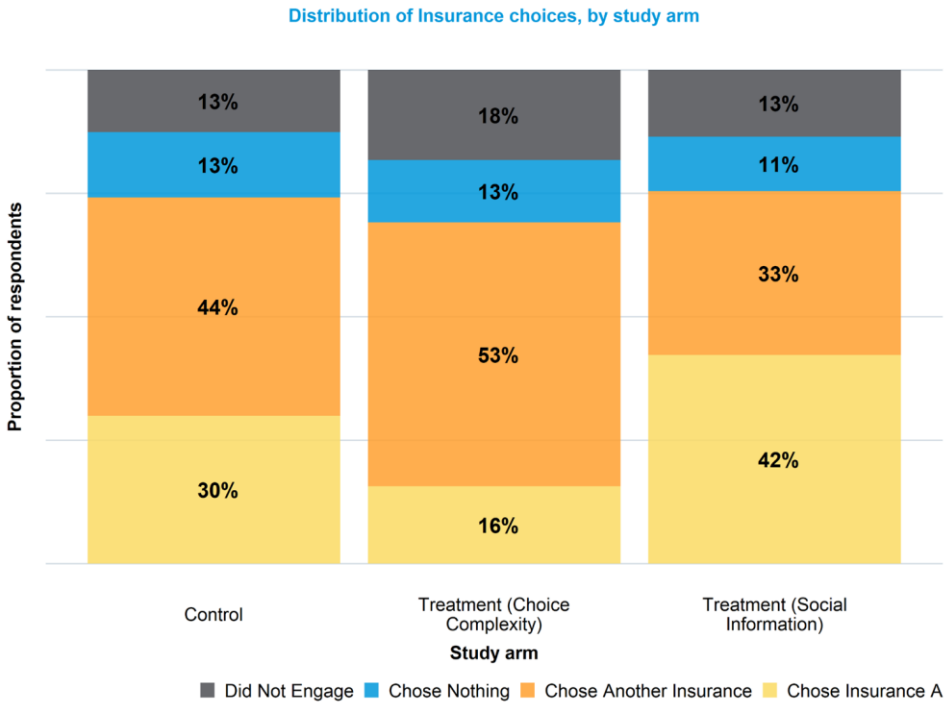




[1] https://www.greateasternlife.com/my/en/personal-insurance/our-products/life-insurance.html [Retrieved on 23 July 2021]
[2] https://www.aia.com.my/en/our-products/life-protection.html [Retrieved on 26 July 2021]
[3] https://www.allianz.com.my/life-insurance [Retrieved on 26 July 2021]

# Providing social information could influence one's choice of insurance




Although we did not observe a significant difference in levels of disengagement between the 'Social Information' treatment arm and control arm, an insightful observation surfaced while looking into the respondents' insurance choices.

Across study arms, Insurances A to C had broadly similar information in terms of coverage, premiums and co-payment levels.

We saw that **a higher proportion of respondents in the 'Social Information' arm chose Insurance A compared to the other two arms**; Insurance A was also the highest-rated policy among the three presented. This suggests that the social approval could have been a signal for a respondent to pick Insurance A over another policy. Such a finding could be useful in understanding how individuals are receptive to social information provision in influencing their insurance choices.

# Consumers need help with insurance information

Our experiment shows that an increase in information complexity may encourage disengagement from insurance choices. The information from our ‘Choice Complexity’ arm, whilst simpler, is largely reflective of the the current insurance market: Hard-to-compare policy terms, and a multitude of choices to select from. While there are existing comparison sites such as RinggitPlus and iMoney, they tend to list general features and insurance terms, which may not be enough to properly engage individuals. We could consider how information can better tailored to facilitate one’s decision-making.

BIT recently published a policy paper, Making Markets Better, which looks into how by understanding individuals’ incentives, motivations and behaviours, we can improve the efficiency of markets and better deliver benefits to businesses and citizens alike. Some of their recommendations include developing standardised comprehension measures to compare providers, and building public databases, comparison and feedback sites - especially for typically harder-to-compare industries such as financial and energy services.

For example, New South Wales reformed its compulsory third party car insurance market, which includes a single source for comparing all insurance offers, as a result saving motorists hundreds of dollars a year. Our policy thinking should consider the potential to regulate information transparency, which may better engage consumers and ease them into making better insurance decisions.

# Subgroup analyses

Looking at age and income

THE
BEHAVIOURAL
INSIGHTS
TEAM

# We ran specific analyses to look at age and income

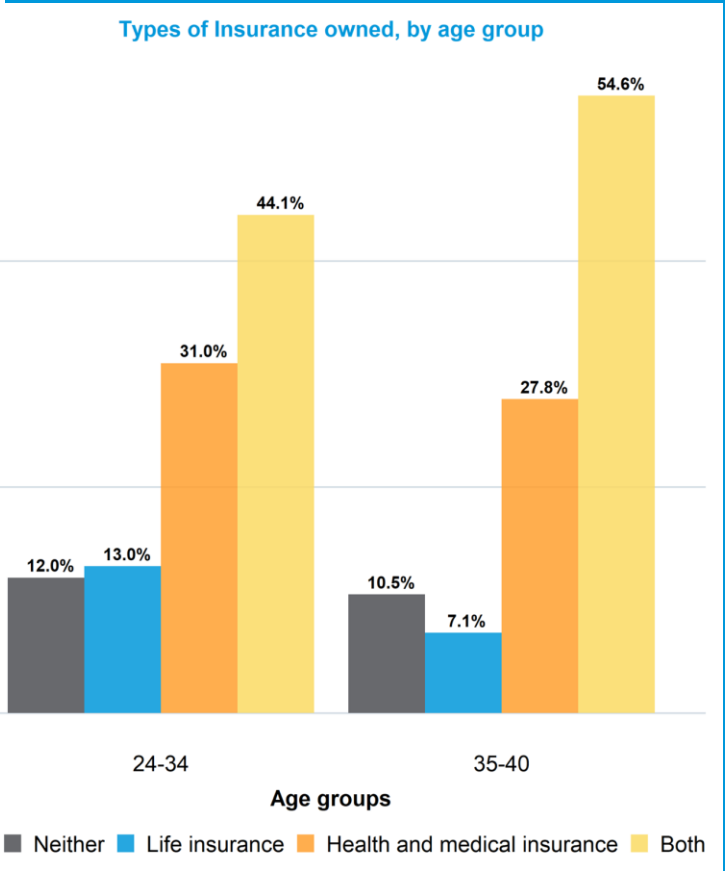
We ran analyses on the survey data looking at differences in responses based on age and income. To do this, we split our sample into subgroups: this has the advantage that it is easier to visualise and interpret. However, “dichotomising” data in this way has clear disadvantages in that it can reduce statistical power, and can lead to spurious results based on what split is used. As such, we did not run significance tests for any of our subgroup analyses as these would not be as useful, and could even be misleading.

We do think the outputs of these analyses are helpful, though, provided they are taken as indications of areas for further exploration, rather than definitive findings. You can find them in the following few pages.

# Older respondents have slightly higher levels of both insurance types

The graph on the right splits the population into younger (aged 24-34) and older millennials (35-40). As you can see, it appears that the slightly older age cohort have a greater proportion of respondents with both life and health insurance. This is largely in line with what we might expect: older respondents may have higher incomes, and more responsibilities, which might make insurance more appealing.

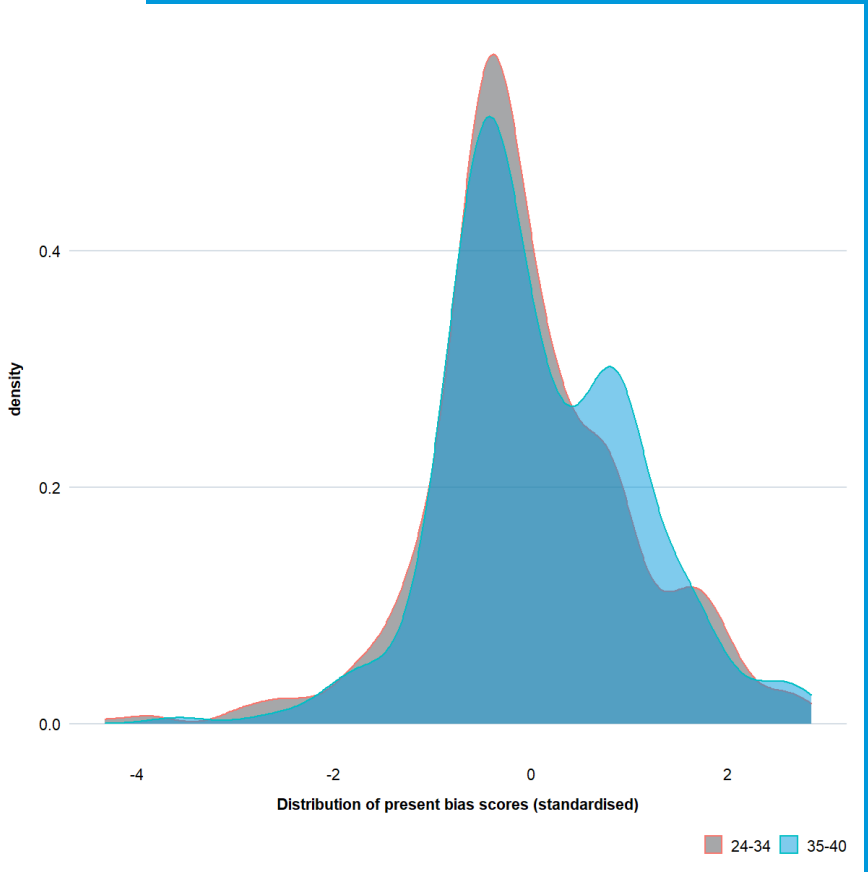
That being said, the difference is certainly not so stark as to be greatly significant. It may be that to really see differences in uptake by age one would need to specifically focus on older participants. This was out of scope for this research study and could be worth looking into further.



# Present bias does not seem to differ across age groups

The graph on the right presents the distribution of present bias scores, following the same split as before at age 35.

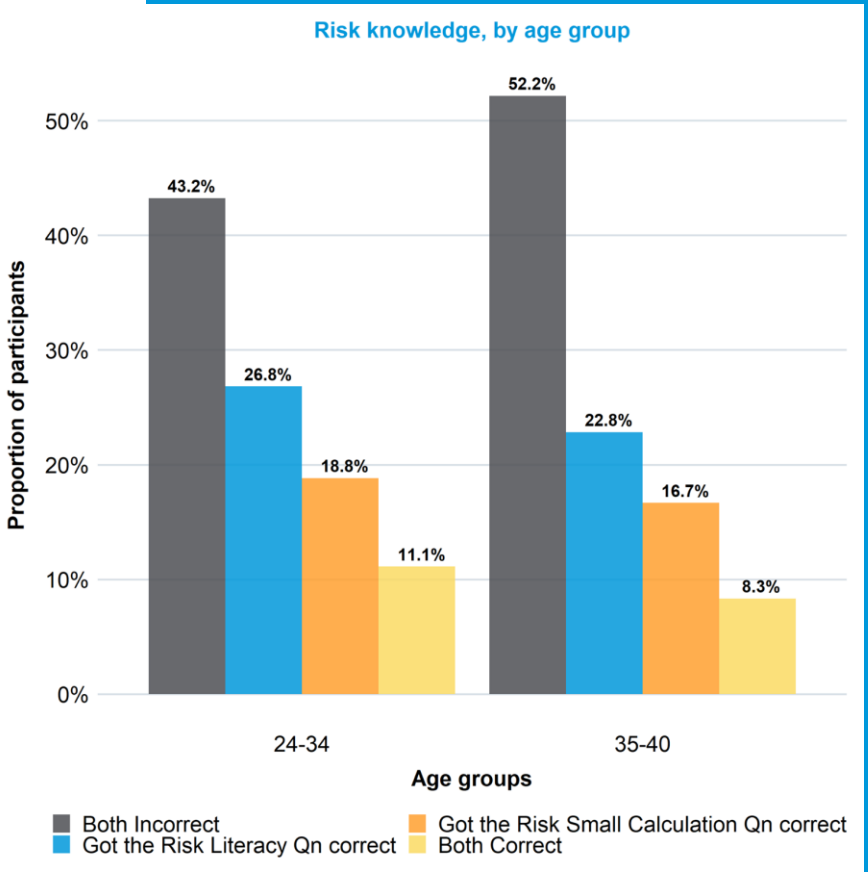
There seems to be a minor difference where older respondents have slightly higher present bias than younger ones. This difference appears to be very small; age is unlikely to be the key driver of present bias, and perhaps other factors such as income could be a likelier predictor.



# Risk knowledge does not vary much by age group

To have a better sense of how risk knowledge scores differ by age, we again split across younger and older millennials.

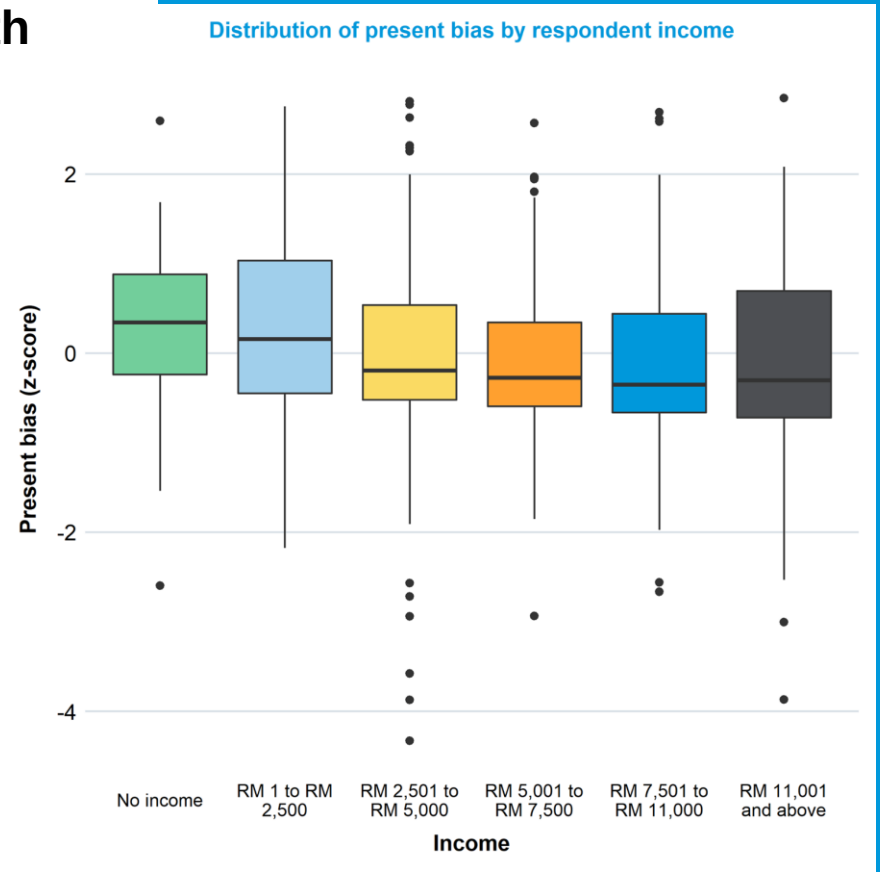
Respondents aged under 34 are observed to have very slightly higher risk knowledge scores, as seen by their higher proportions of correct answers for either or both questions. Having said that, a different split of the age data may well lead to other interpretations - hence we do not believe that much can be concluded from this difference.



# Lower income is associated with higher present bias

We observe slightly higher present bias amongst individuals who report lower monthly incomes. However, the variation within each income group is larger than the difference between the income groups.

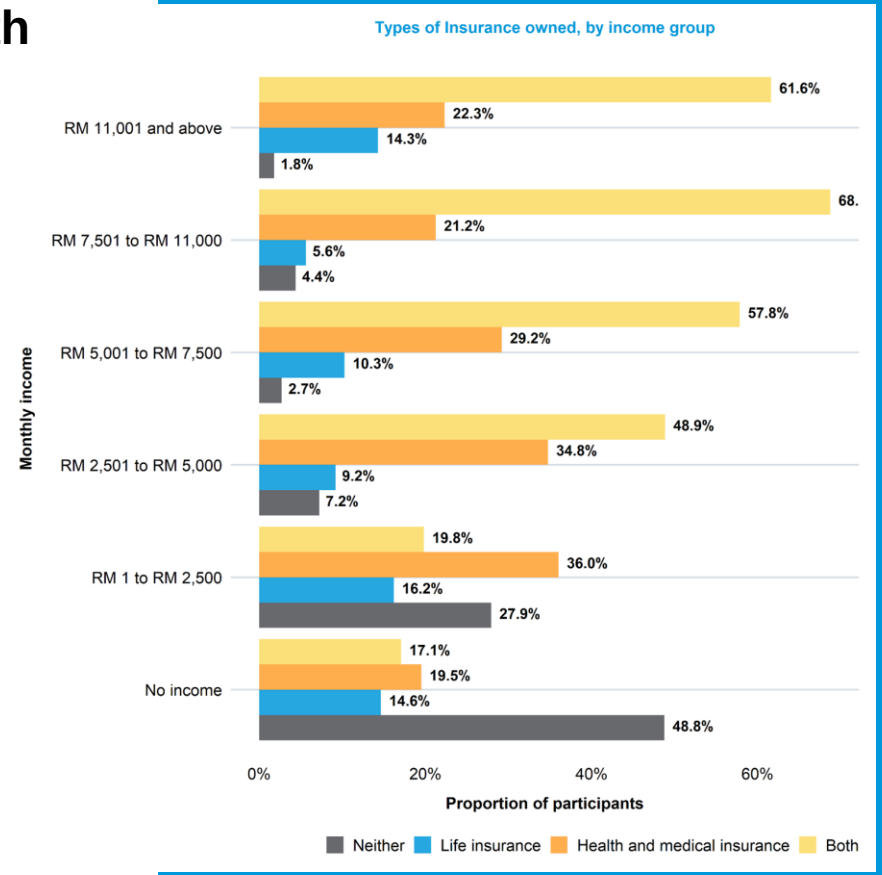
It should be clear that the causality of this relationship is uncertain, and may well work in both directions: having low income may increase present bias, and that present bias may then constrain efforts to build long term earning potential. Present bias matters in this context because it may make it particularly difficult for people to see the benefits of insurance.



# Lower income is associated with lower levels of insurance

While only 12% of the overall sample had reported having neither life nor health insurance, this masks considerable heterogeneity across different income levels. Less than 20% of our respondents with monthly incomes below RM2,500 were covered by both insurance types.

On the flip side, respondents with higher levels of monthly income generally reported higher levels of insurance ownership. While we specifically asked for insurance that was purchased by the individual, since this is self reported, we are unable to validate the truth behind these claims. For example, lower income individuals might be more likely to rely on employer funded insurance plans and social security, rather than buying their own insurance, given their limited resources.



# Key findings from our subgroup analyses

Our analysis of specific age and income subgroups resulted in the following findings:

1. **We do not observe major differences in present bias between age groups**, but there is definitely a spread across the whole population. This is not hugely surprising - in fact, we think that present bias may be more strongly associated with circumstances than age.

2. **We do not observe major differences in risk literacy between age groups**. More of the older cohort got both our risk questions wrong; however, because the split in age cohorts at age 34-35 is slightly arbitrary, albeit prespecified, it may suggest an effect where none exists.

3. **Lower income persons have less insurance and higher present bias.** The relationship between income and cognitive biases is well-evidenced, but still perhaps not sufficiently considered in terms of policy design.

# What are the factors that influence urban Malaysian millennials' insurance uptake?

Considerations and influences for respondents with insurance

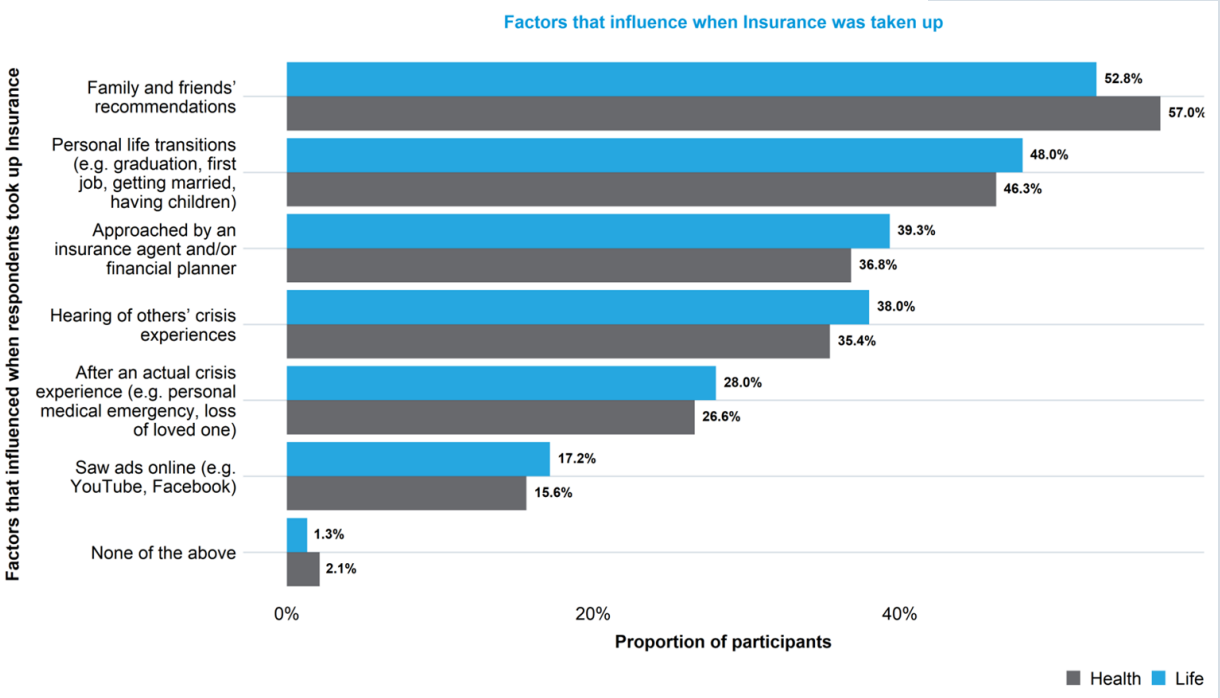
THE BEHAVIOURAL INSIGHTS TEAM

# Understanding the factors that potentially influence one's insurance uptake

In the following section, we looked into the participants' responses around some of the barriers, drivers and influences towards their insurance behaviour. Specifically, PIDM and BIT collaborated to identify the various reasons that could explain why an individual might or might not choose to take up life and/or health insurance policies. We were also particularly interested in the relevance of COVID-19 towards one's insurance behaviour over the past year.

An important point to note here is that the following findings are a result of self-reported beliefs and behaviours, which could be different from an individual's actual beliefs and behaviours. For example, our respondents may be keen to provide the "correct" answer, or at least to hide answers they may think will not be considered valid. They may also not be conscious of many of the subtle influences on their behaviours and beliefs. However we believe that these responses can give policymakers a sense of what people want from insurance and the insurance market.

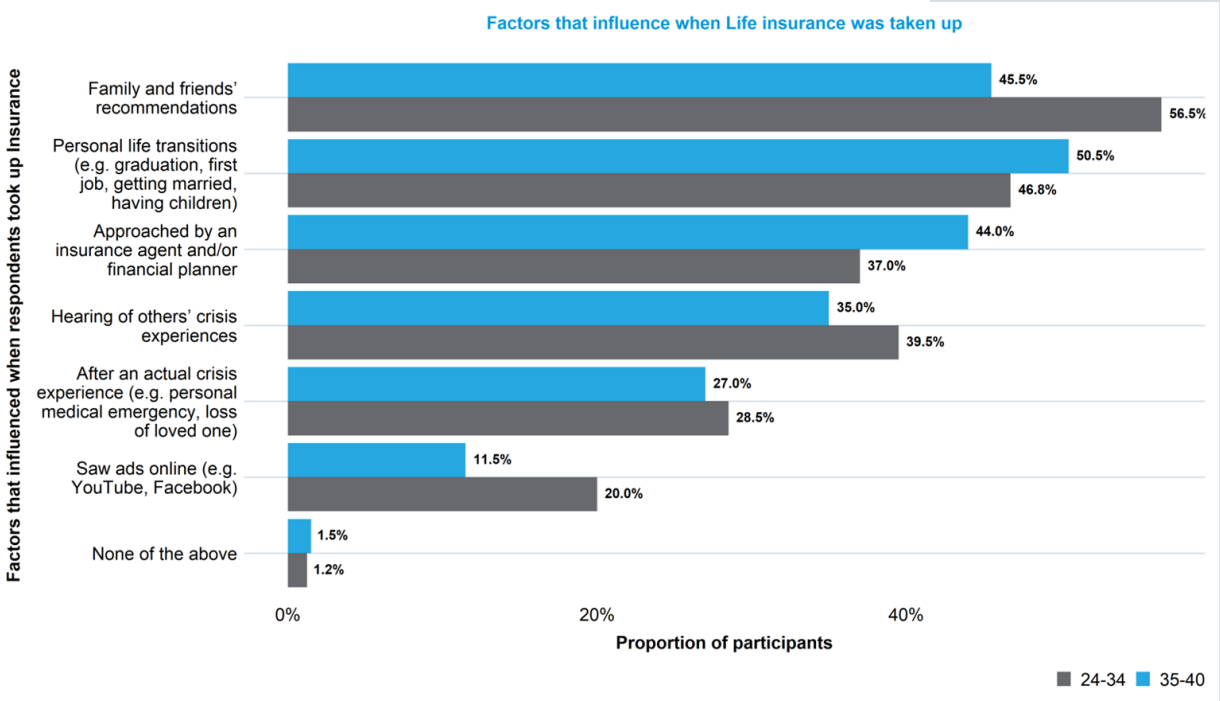
# Factors that affected insurance take-up decisions




*Across the sample, it is clear that recommendations from Family and Friends are key drivers stated for the decision to take up both Life and Health insurance, closely followed by Personal life transitions.*

*It is also important to note that hearing of others' crisis experiences is a more powerful factor compared to experiencing an actual crisis itself. This could have important policy implications in terms of how to communicate the need for insurance.*

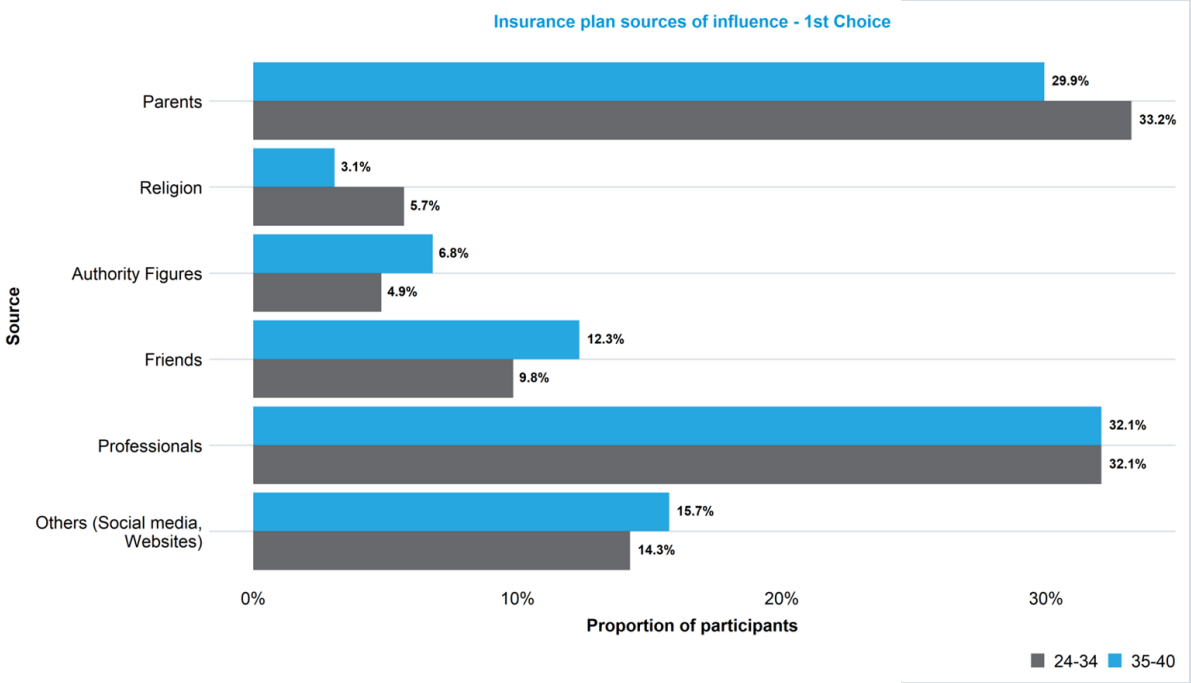
# Factors that affected life insurance take-up decisions




*For factors that affect life insurance decisions, across the two age groups we see some interesting divergences. Notably, the younger cohort are more strongly influenced by peer recommendations, while the older cohort is more receptive to insurance agents/planners. The younger cohort also reported being more influenced by online ads.*

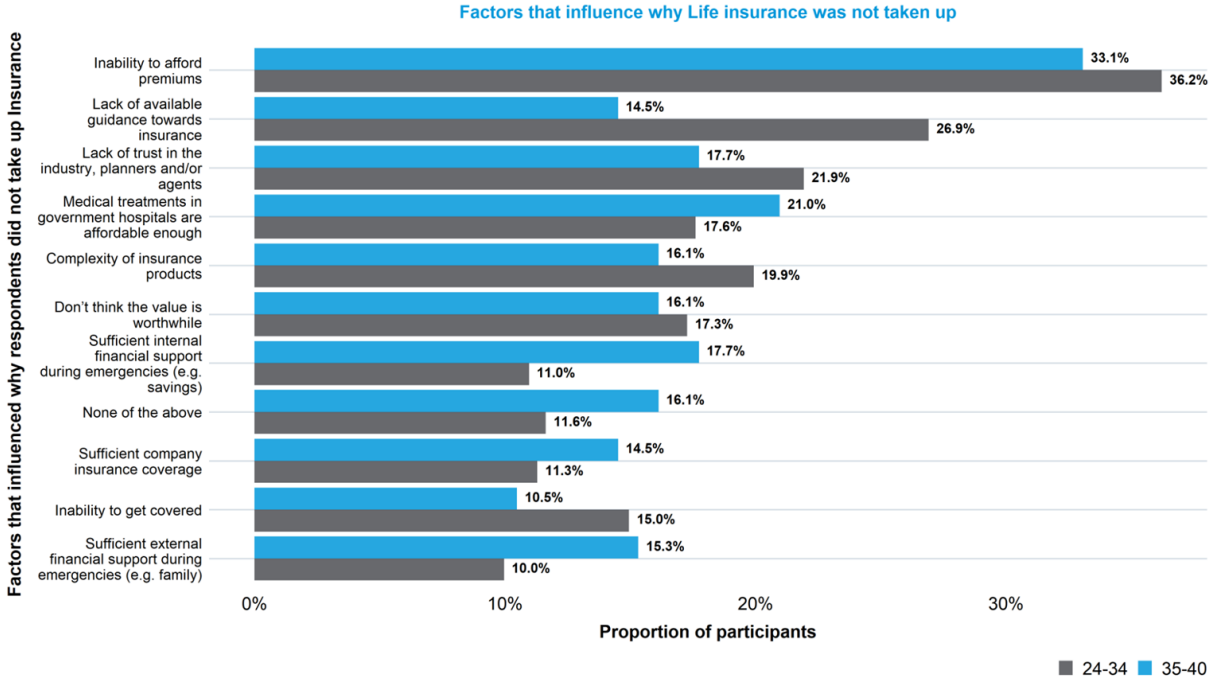
*Unlike life insurance, we do not see any stark differences across the age cohorts for health insurance decisions.*

# Source of influence for insurance decisions




*We see that across our sample, Parents and Professionals are the primary influence when it comes to making insurance decisions. While there are slight differences in the influence of Religion/Authority figures across our age cohort, they are not large enough to warrant too much consideration.*

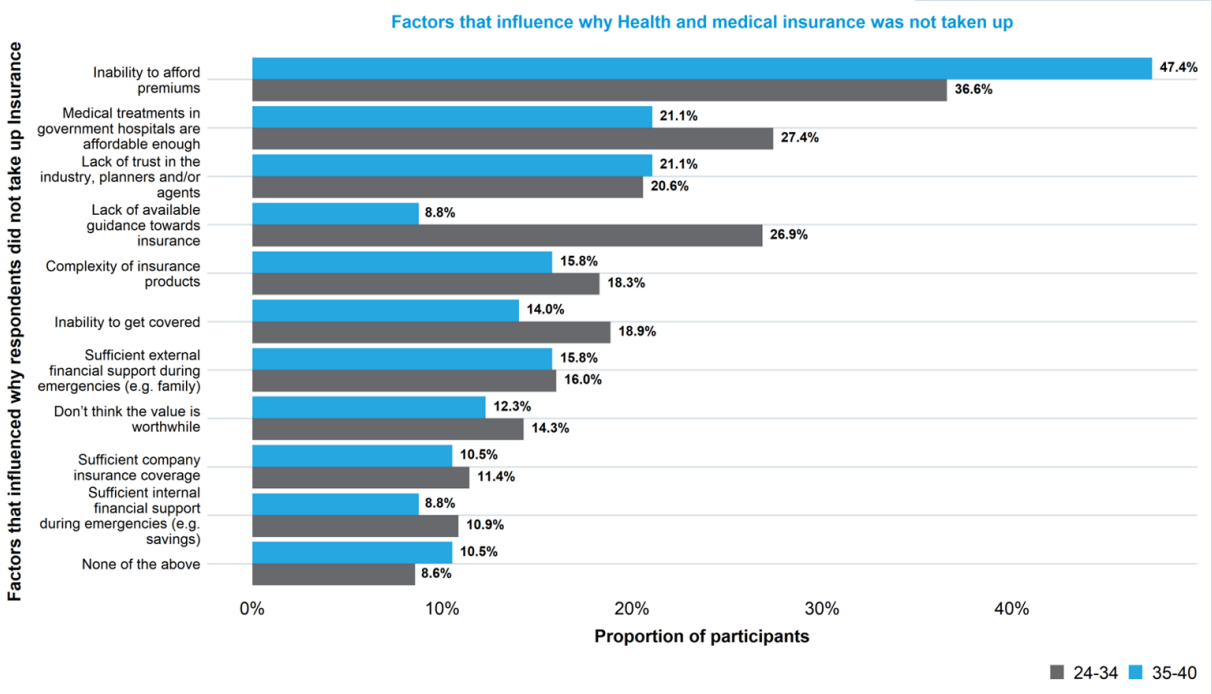
# Reasons why life insurance was not taken up (split by age)




*While Inability to afford premiums is the top concern across our age groups, we see that a larger portion of our younger cohort alludes to Lack of available guidance compared to their older counterparts. This could also be because of higher levels of mistrust in the industry and existing agents.*

*When we consider the older cohort, we see more confidence in Internal financial support. While this could legitimately be the case, it could also be a signal of overconfidence in their savings.*

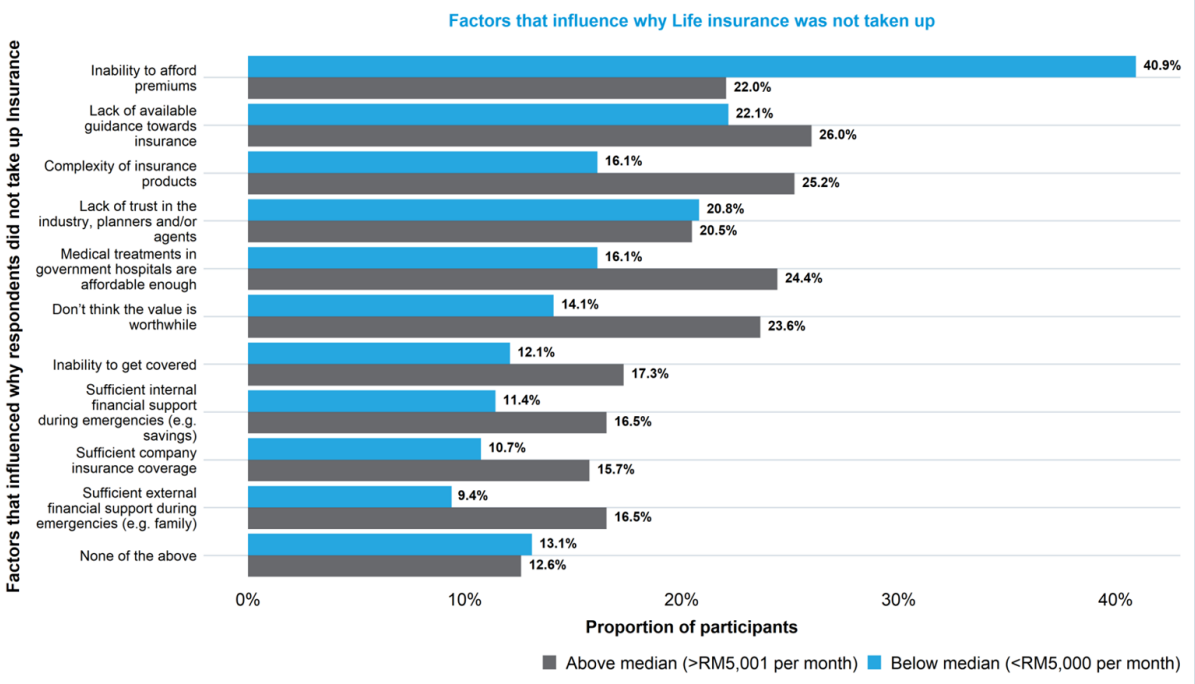
# Reasons why health insurance was not taken up (split by age)




*For health and medical insurance, we see that Affordability is more of a concern for our older cohort. This may be due to pricing strategies followed in the industry which penalise applicants for pre-existing conditions and thus are precisely why we need to encourage earlier insurance take up.*

*Similar to life insurance, the younger cohort point to Lack of guidance towards insurance as a key factor here as well.*

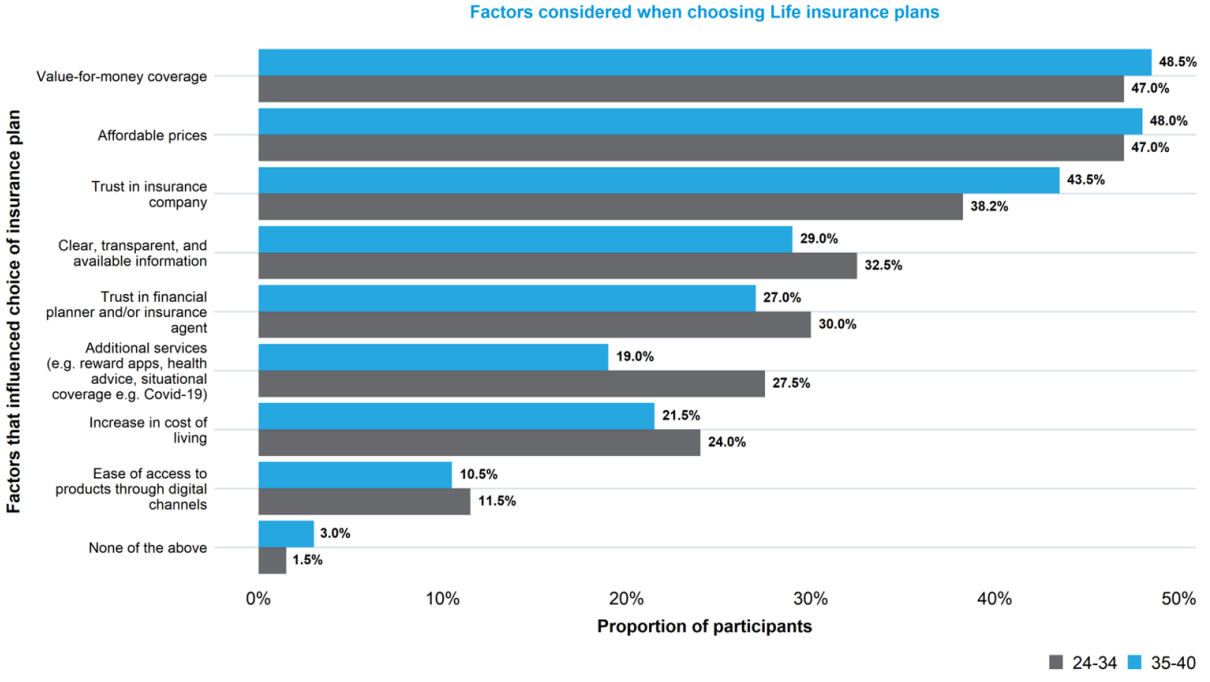
# Reasons why life insurance was not taken up (split by income)




*Our lower income cohort are more likely to report Inability to afford premiums as a key factor. However the Complexity of insurance products and Lack of perceived value are more of a concern for our higher income cohort.*

*The results for health insurance uptake are very similar when we apply a split by median income.*

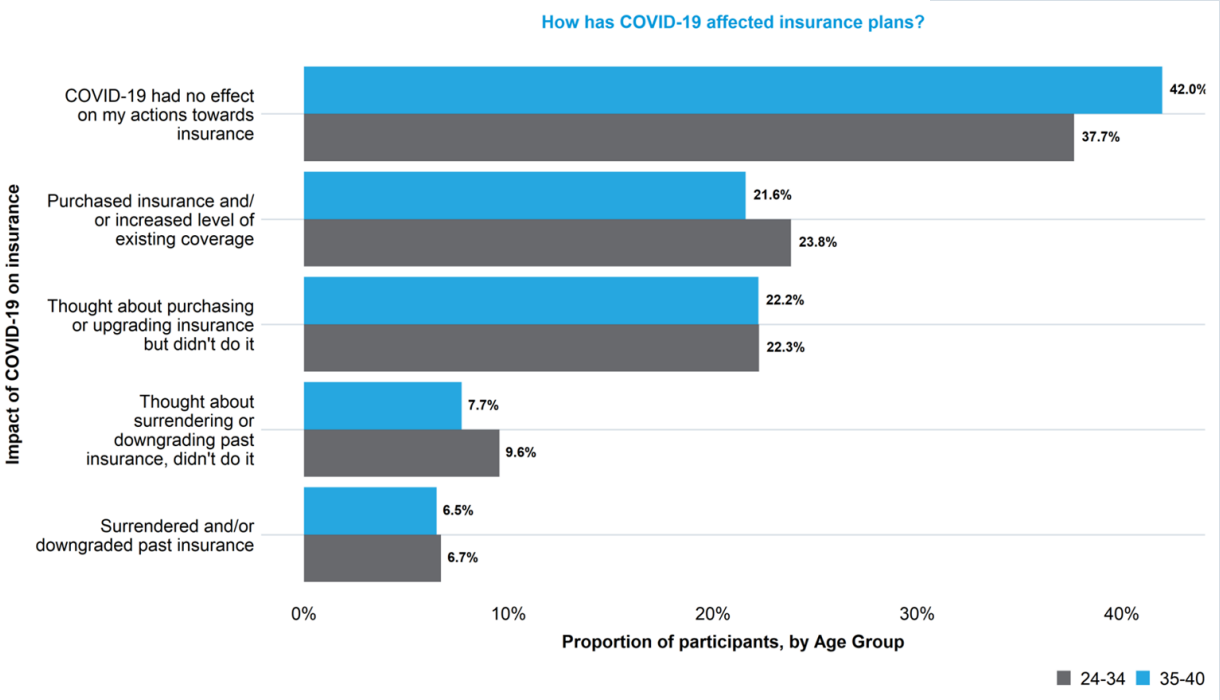
# Desirable features of insurance plans - similar for life and health




*On the left we see factors for choosing life insurance. We see that for most respondents Trust, Affordability and Coverage were important considerations in their choice of life insurance plan. These are also the top results for health insurance choices.*

*Interestingly, younger respondents were more keen on Additional services and Availability of transparent information, which ties in with the concerns of other younger respondents about lacking guidance towards plans.*

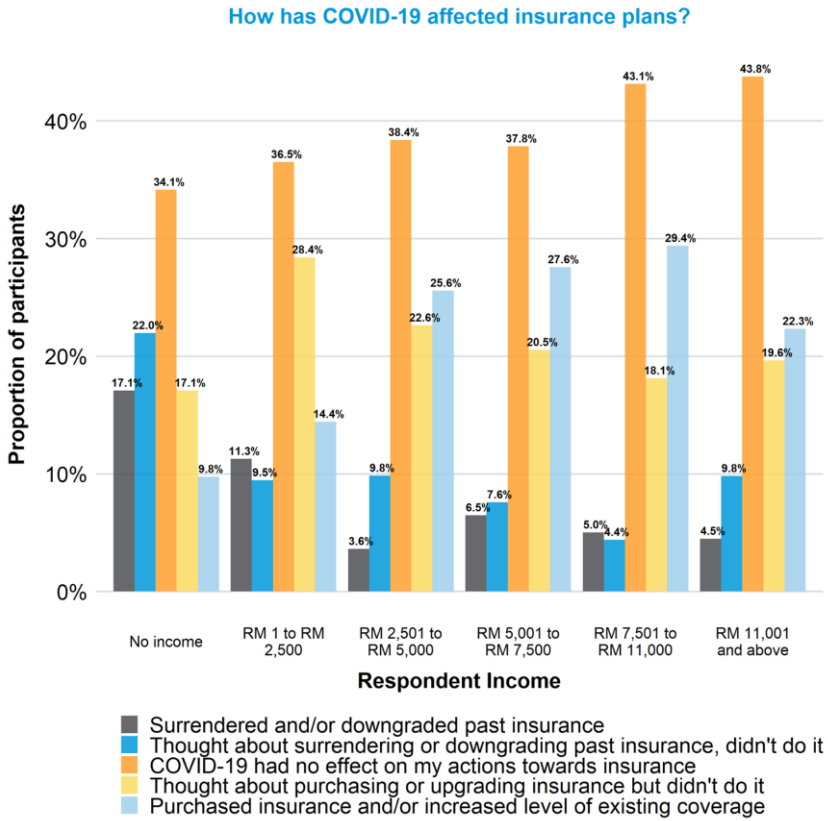
# Impact of COVID-19 on insurance decisions (split by age)




*We see that for most of our sample, COVID-19 did not have a negative impact on their insurance coverage.*

*We do not see differential impacts of COVID-19 on insurance across our age cohorts.*

# Impact of COVID-19 on insurance decisions (split by income)




*However, when we look across income cohorts, we do see differences in behaviours due to COVID-19.*

*A higher proportion of those in the lower income ranges (RM 0 to RM 2,500) reported that they surrendered and/or downgraded their insurance as a result of COVID-19's impact. Even if not actioned, a large proportion of those without income (22%) did think about surrendering or downgrading.*

*Conversely, a higher proportion of those earning over RM 2,500 reported that they either purchased insurance and/or increased their level of existing coverage due to the influence of COVID-19.*

*The contrasts in insurance decisions between the lower and higher income ranges suggest that income could be a factor in determining whether COVID-19 leads to an increase or decrease in how much one chooses to be insured.*

# Key findings from our reported factors

Our analysis of the factors influencing insurance uptake resulted in the following findings:

1. **Family and friends are found to be the most important influences when it comes to insurance uptake**. Aligned with the social information finding in the experiment, there is potential to leverage on one's social influences to support millennials' engagement with insurance. We also discussed in our literature review how Malaysia as a relatively collectivist society could mean that individuals are likelier to involve others in their decisions, and more influenced by the actions of others.

2. **Affordability is a key concern when it comes to one's insurance decision-making**. For both reasons for uptake and the lack thereof, respondents stated that affordability is a top factor. This is unsurprising given insurance planning requires one's careful consideration of long-term premium costs and whether they would be able to sustain them over time.

3. **COVID-19 was reported to have influenced individuals with higher incomes to purchase insurance and/or increase their insurance coverage**. The salience of public health risks could have led to such a behaviour as people are made aware of their need for insurance protection. On the other hand, we see how a higher proportion of those with lower incomes either thought of or did surrendered/downgraded their insurance accordingly. This can possibly be attributed to the negative economic impact of COVID-19 which may have been less likely impact those with higher incomes.

# Key Recommendations

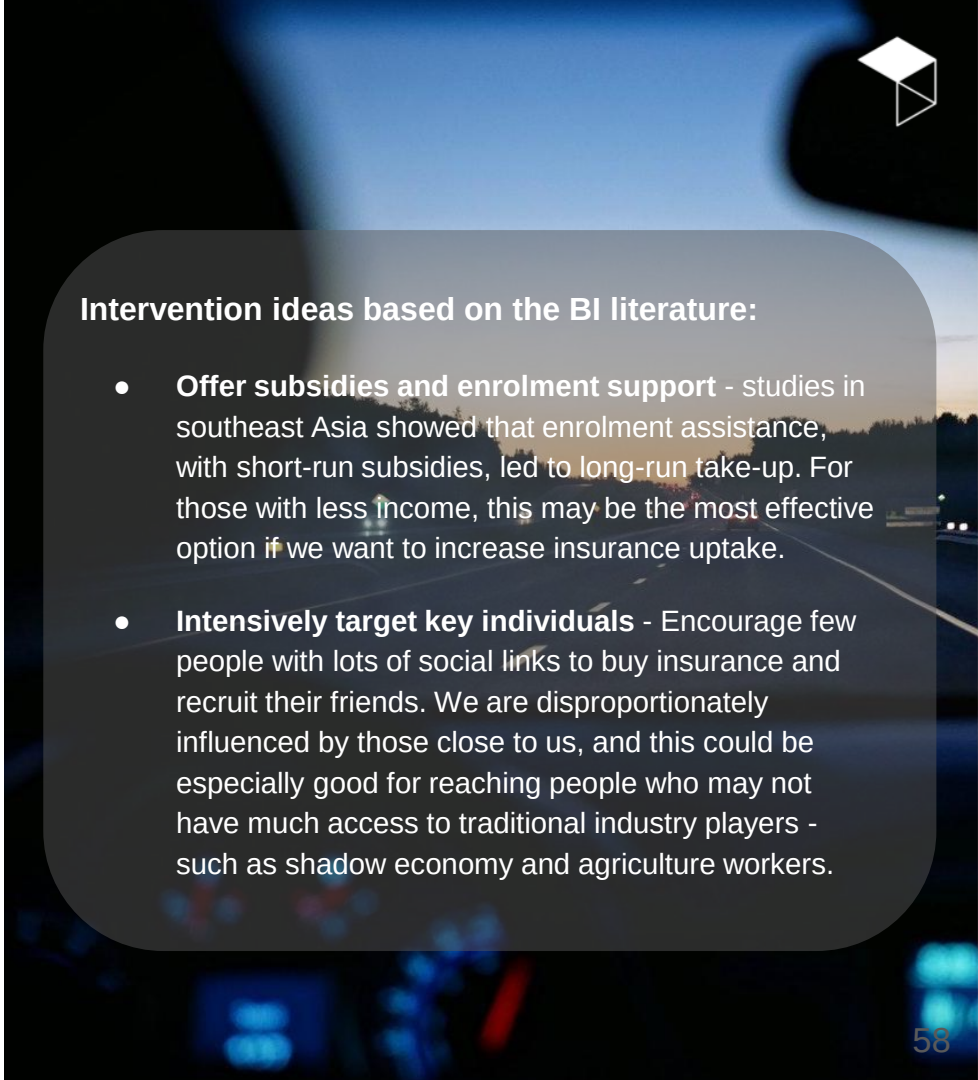
Insights from findings

THE BEHAVIOURAL INSIGHTS TEAM

# 1: Income matters

In our survey, we observe that people with lower income have higher present bias and lower insurance uptake. This means that they may face both structural barriers, in funds, and behavioural barriers, in present bias, to getting insurance.

We think this is sufficient cause to argue that policy needs to treat lower income persons fundamentally differently when thinking about insurance. Information provision and other light touch approaches are not going to be enough - serious support is needed.

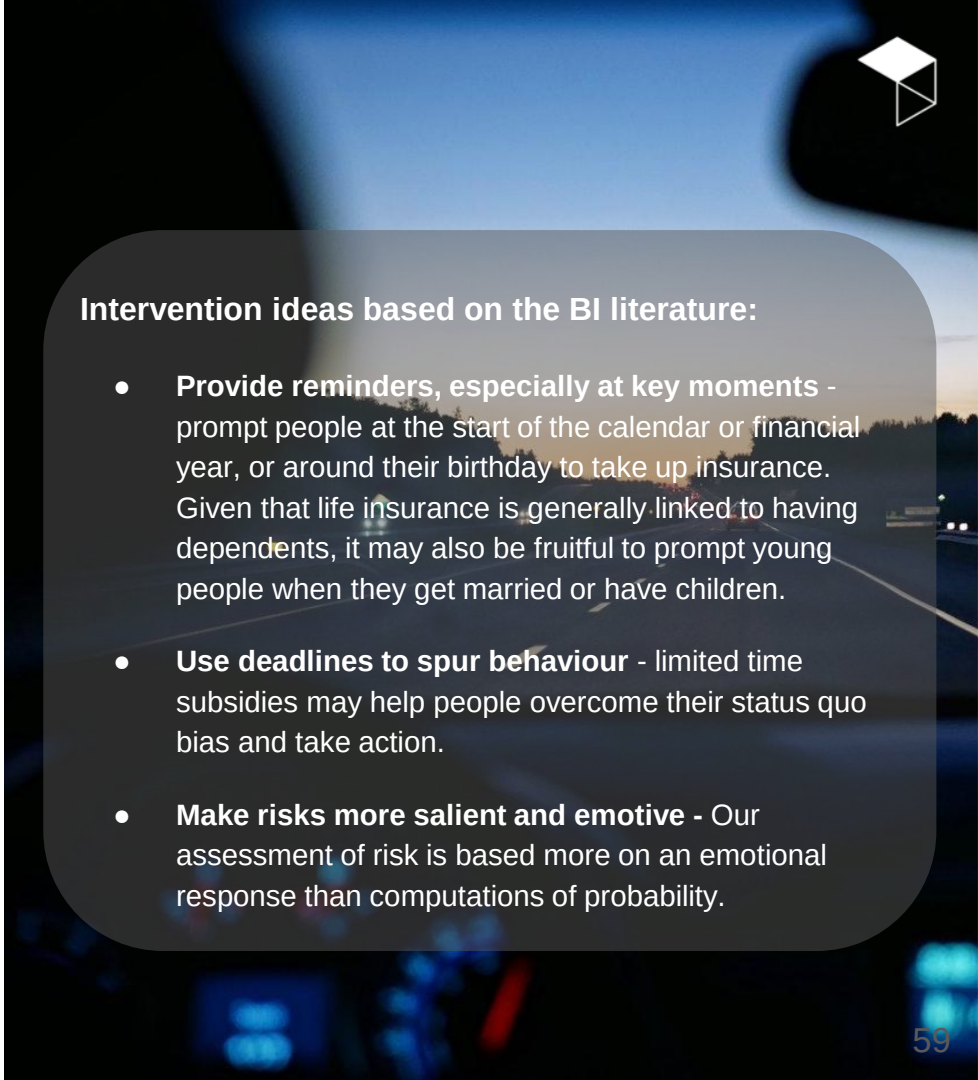


**Intervention ideas based on the BI literature:**

- **Offer subsidies and enrolment support** - studies in southeast Asia showed that enrolment assistance, with short-run subsidies, led to long-run take-up. For those with less income, this may be the most effective option if we want to increase insurance uptake.
- **Intensively target key individuals** - Encourage few people with lots of social links to buy insurance and recruit their friends. We are disproportionately influenced by those close to us, and this could be especially good for reaching people who may not have much access to traditional industry players - such as shadow economy and agriculture workers.

# 2: Prompt action

For those who do have more disposable income, we can take action to encourage insurance uptake. More to the point, we can find better ways to *prompt* action. Rather than trying to get everyone to get insurance all the time, we can think cleverly about the moments in life when people already are more likely to get insurance - to need insurance - and focus our energies on these life transitions.

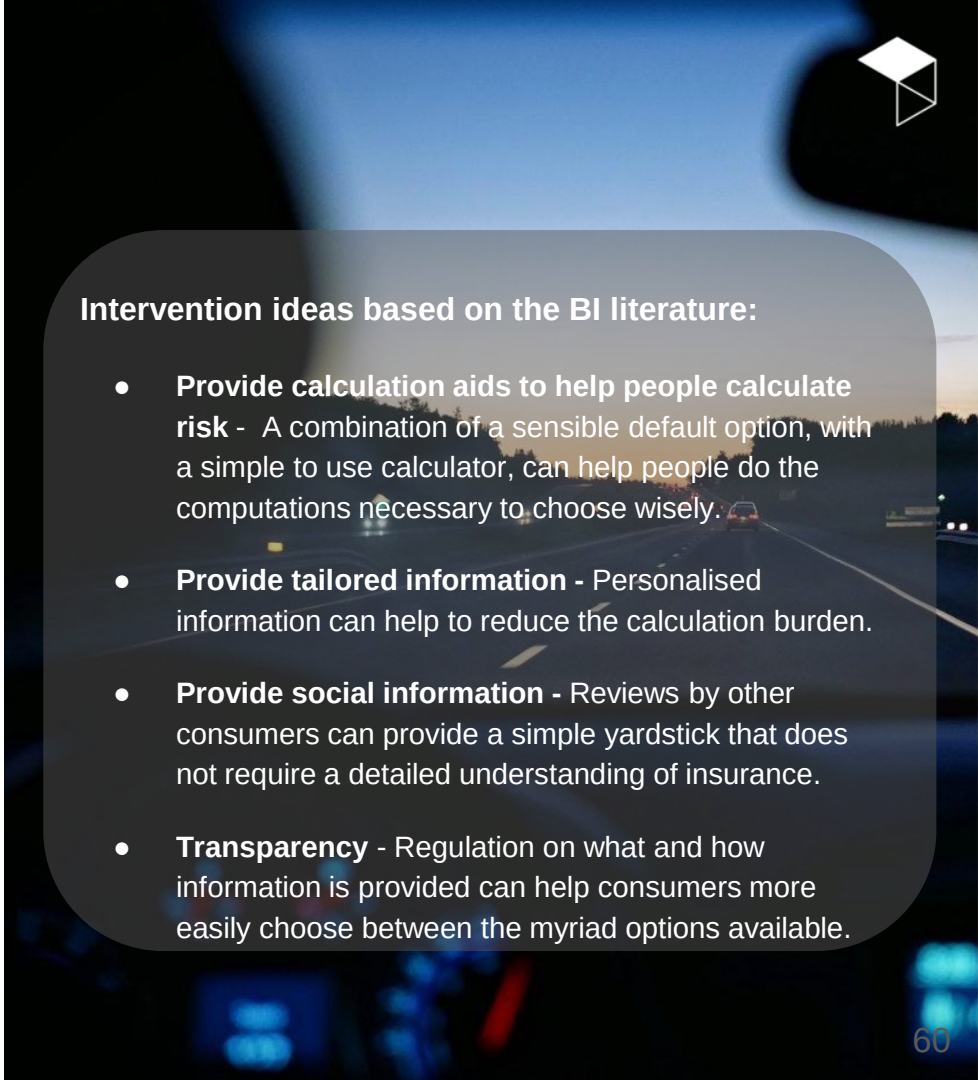


**Intervention ideas based on the BI literature:**

- **Provide reminders, especially at key moments** - prompt people at the start of the calendar or financial year, or around their birthday to take up insurance. Given that life insurance is generally linked to having dependents, it may also be fruitful to prompt young people when they get married or have children.
- **Use deadlines to spur behaviour** - limited time subsidies may help people overcome their status quo bias and take action.
- **Make risks more salient and emotive -** Our assessment of risk is based more on an emotional response than computations of probability.

# 3: Simplify choices

Our findings show clearly that people struggle with decisions around insurance - whether it is their tendency to disengage in the experiment in the face of too many choices, or the high proportion of respondents who pointed to lack of guidance as an obstacle. Luckily, though, the solution is clear also - policy and regulation that promotes and ensures simplicity and transparency. That way we can make it easier for individuals to find a suitable insurance option for themselves.



**Intervention ideas based on the BI literature:**

- **Provide calculation aids to help people calculate risk** - A combination of a sensible default option, with a simple to use calculator, can help people do the computations necessary to choose wisely.
- **Provide tailored information -** Personalised information can help to reduce the calculation burden.
- **Provide social information -** Reviews by other consumers can provide a simple yardstick that does not require a detailed understanding of insurance.
- **Transparency** - Regulation on what and how information is provided can help consumers more easily choose between the myriad options available.

# Conclusions for further consideration

Apart from the recommendations which were informed by our research findings and linked to the intervention ideas we devised in creating our BI principles for insurance we also have reached a few key conclusions on this topic:

1. **We need more policies and products that recognise impact of biases.** Our findings feed into a global body of evidence that cognitive biases matter for financial behaviours.[36] It is important that our policies and regulation reflect the realities of financial decision-making, and that we promote products and services that work within the constraints of how people think.

2. **We need to regulate assuming that people are not paying attention.** Too often our policies and regulation is created by the financially savvy for the financially savvy, and if people don't have the capacities, we try and train them. Instead, we need to create policy that works for people as they are: present biased, with limited attention, and not that interested in the complicated domain of insurance.

3. **We need further research.** This study only began to uncover some of the biases and behavioural insights relevant to financial behaviours and decision making. More work will need to be done.

[36] Smit, H., Rinehart-Smit, K., & Schlemmer, L. (2019, June). *Behavioural interventions for insurance*. Insight2Impact. https://cenfri.org/wp-content/uploads/2019/06/Behavioural-Science-in-Insurance-focus-note.pdf

# Appendix

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INSIGHTS
TEAM

# Cities classification by state and region

| Region | Central | | | Northern | | | | Southern | | |
|---|---|---|---|---|---|---|---|---|---|---|
| State | Kuala Lumpur | Putrajaya | Selangor | Perak | Pulau Pinang | Perlis | Kedah | Johor | Melaka | Negeri Sembilan |
| City | Kuala Lumpur | Putrajaya | Shah Alam | Ipoh | George Town | Kangar | Alor Setar | Johor Bahru | Malacca City | Seremban |

| Region | East Coast *(exc. Sabah, Sarawak)* | | | Sabah and Sarawak | |
|---|---|---|---|---|---|
| State | Pahang | Terengganu | Kelantan | Sabah | Sarawak |
| City | Kuantan | Kuala Terengganu | Kota Bharu | Kota Kinabalu | Kuching |
| | | | | Sandakan | Miri |
| | | | | Tawau | Sibu |

# Get in touch for more information

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***More information on BIT's work in applying behavioural science to tackle social issues can be found on our website: www.bi.team***