# Improving Mental Health Disclosure for Insurance Underwriting

Results from an RGA behavioral science experiment

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# Key takeaways

- Mental health is an increasingly important but complex challenge for underwriting. Behavioral science techniques can improve the accuracy of disclosures around mental health.

- Making questions cognitively easier to answer by using specific, unambiguous language and complete example lists improves disclosures without harming the customer experience.

- Making questions emotionally easier to answer by normalizing openness about mental health issues increases disclosures and improves the customer experience.

- Customers may feel more comfortable disclosing mental health conditions through psychologically distant channels, such as AI chatbots.

## The mental health underwriting opportunity

While outside influences may impact mental health, mental illnesses have biological components, much like hypertension, asthma, and myriad other diseases. And despite growing understanding and acceptance, having a mental health condition is still often viewed as a personal weakness. This pervasive stigma results in a reluctance to talk about mental health in general, and to disclose relevant conditions to insurance agents or on insurance applications. In addition, confusion surrounds what constitutes a mental health condition that should be disclosed, including undiagnosed anxiety, depression, and others.

Mental health issues can significantly impact mortality and morbidity outcomes, via unhealthy lifestyle choices and risky behaviors such as substance abuse, and through physiological effects we are only beginning to discover. For underwriters, an understanding of an applicant's mental health is therefore vital to accurate risk assessment. Developing strategies to gain such an understanding will improve insurers' ability to price risk and design products that better meet the needs of all applicants.

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## Background

Mental health is a challenging topic for many to discuss – even when doing so can lead to significant benefits, such as receiving medical treatment, workplace adjustments, or emotional support from friends and family.

For life and health insurers, consumers' reluctance to disclose mental health conditions creates a notable challenge. RGA's 2023 Mental Health Survey revealed that while 85% of insurers surveyed ranked mental health as a top or moderate priority, 55% reported that underwriting and managing claims in this area is difficult.

Obtaining accurate mental health disclosures on application forms remains a significant challenge, yet there is currently little research or consensus on how to make it easier for customers to share this information. RGA's extensive behavioral science research on other under-disclosed topics, such as tobacco use, substance use, BMI, and medical conditions, has shown that the way customers interpret and emotionally respond to underwriting questions plays a critical role in their willingness to disclose. Using behavioral science-backed techniques to refine these questions can lead to increased disclosures.

Applying learnings from this previous work, RGA's Behavioral Science team conducted a research experiment to test a range of techniques to better understand how customers interpret, process, and emotionally react to mental health questions. We examined how applying these insights could improve disclosures and enhance the overall application experience.

# Why applicants may not disclose mental health conditions

While some applicants may intentionally withhold information to secure coverage or lower premiums, non-disclosure often stems from psychological factors. Strong emotions often arise when people are asked to think about and share sensitive details. Applicants may avoid disclosing a mental health condition due to feelings of embarrassment, shame, or emotional discomfort. Recognizing these emotional barriers is essential to improving disclosure rates.

The simplicity of questions also plays a role. True simplicity is derived not from the length of a question, for example, but from its lack of ambiguity. A requirement to think deeply, consider multiple conditions at one time, recall complex details, make calculations, interpret medical terminology, make subjective judgments, or navigate emotional reactions can create a cognitive burden. This cognitive burden can lead to inaccuracies if customers misunderstand a question or simply cannot answer, or customers may approximate to avoid the effort of fully thinking

through the question. For example, consider the question below, a variation of which is often used because it appears short, and is therefore assumed to be simple:

"Have you ever been diagnosed with, suffered from, sought medical advice for, or received treatment for any mental health condition? Some examples include anxiety, post-traumatic stress, depression, or schizophrenia. Yes/No."

While the question appears short, it places a significant burden on the applicant to interpret its meaning – possible conditions included and severity of symptoms making a disclosure necessary – and recall all the relevant details. The question also does little to ease the customers' emotional response arising from the stigma attached to mental health disclosures. All of which contribute to a risk of non-disclosure and a negative applicant experience, despite the brevity of the question.

## From our past research, we have identified five principles to guide the development of the optimized questions tested in this study

**Short isn't always sweet.** When creating underwriting questions, it is commonly assumed that a shorter question means an easier question. However, RGA's past research shows that brevity can create ambiguity, leading to non-disclosures and inaccuracies.

**Thinking is hard work.** Ambiguous underwriting questions or those lacking clear prompts require customers to expend more effort to recall relevant conditions. Customers may also have difficulty understanding technical medical terms, compounding the issue. This additional strain reduces the

likelihood of accurate responses and may lead to customers abandoning the application process.

**Feeling is thinking.** Applicants may experience feelings of shame, embarrassment, or anxiety at the prospect of sharing their mental health history. These emotions, as well as the high stigma associated with mental health, can profoundly influence their willingness to disclose.

**Friction isn't always bad.** Like traffic controls that slow vehicles to improve safety, adding small amounts of friction can help

customers process information and make better decisions. In underwriting, this approach encourages customers to fully read and consider key questions, rather than rushing through and providing inaccurate answers.

**Time perception is relative.** We have found that easy-to-answer questions feel quicker to customers, even when in reality they take slightly longer to answer. Managing the perception of time is critical to the customer experience, and simplicity can make an experience feel faster, regardless of its actual duration.

# Testing optimized mental health questions

In this study, we tested whether simplifying and normalizing mental health questions would increase disclosures and enhance the customer experience.

The research involved 4,049 participants who were demographically representative of the US and Australian populations and of typical insurance-holding age. Using a randomized control trial, we asked participants to complete a survey on their experiences with, and attitudes toward, mental health. Each participant received one of several versions of a mental health question: either a standard control question – one that is typical of questions seen in the market without behavioral enhancements (Figure 1) – or a behaviorally enhanced question. We measured both their disclosures as well as their experience.

*Figure 1. The "control" question in the style often used in each market*

Have you ever been diagnosed with, suffered from, sought medical advice for, or received treatments for any mental health condition? Some examples include anxiety, post-traumatic stress, depression or schizophrenia.

○ Yes

○ No

## Finding 1: Specificity encourages disclosure.

Our first enhanced question listed the exact mental health conditions participants needed to disclose (Figure 2). This specificity brought relevant conditions to the top of participants' minds and reduced the mental effort required to recall their mental health history.

This method increased the disclosure rate by 17% (Figure 5).

We also measured completion time and found that participants answering the specific-list question took an average of only six seconds longer to complete it than the control question, with no noticeable negative impact on their consumer experience.

While shorter questions are often assumed to be easier, our findings suggest otherwise. By specifying conditions, we improved salience by making conditions top of mind and reduced cognitive load (the amount of mental effort it takes to produce an answer), making it easier for applicants to recall and process information and leading to more accurate and confident disclosures.

*Figure 2. Specific list of conditions*

Have you ever been diagnosed with, suffered from, sought medical advice for, or received treatments for any of these mental health condition:

- Any anxiety disorder including generalized anxiety, panic, or phobic disorder
- Any eating disorder including anorexia nervosa or bulimia or any other eating disorder
- Any form of depression
- Bipolar disorder
- Post-traumatic stress disorder (PTSD)
- Acute Stress Disorder or any other stress reaction disorder
- Schizophrenia
- Any other delusional, psychotic or schizotypical disorder
- Any sleep disorder, sleeplessness, chronic tiredness
- Obsessive compulsive disorder (OCD)
- Borderline personality disorder or any other personality disorder
- Any other mental health condition

○ Yes

○ No

# Finding 2: Normalizing mental health increases disclosures.

Stigma often makes people uncomfortable discussing mental health in various settings.1 To address this, we designed a behaviorally enhanced question to reduce potential embarrassment resulting from this stigma and normalize the disclosure of mental health conditions. We included a statement (Figure 3) highlighting the prevalence of mental health challenges and emphasizing that many people actively take steps to manage and alleviate these challenges.

*Figure 3. De-stigmatizing statement in front of the question*

It is increasingly accepted be people everywhere that recognizing and taking care of our mental health is important. In fact, a recent study showed that the number of people reporting their mental health has increased by 20% since 2014 and many adults now take active steps to manage their mental health

When paired with a specific list of conditions, the de-stigmatizing statement increased the disclosure rate by a further 10%, or 28% compared to the control version (Figure 5), with only 12 additional seconds required to complete it. Follow-up questions revealed no noticeable negative impact on user experience.

# Finding 3: Segmenting stigma increases the number of conditions people disclose.
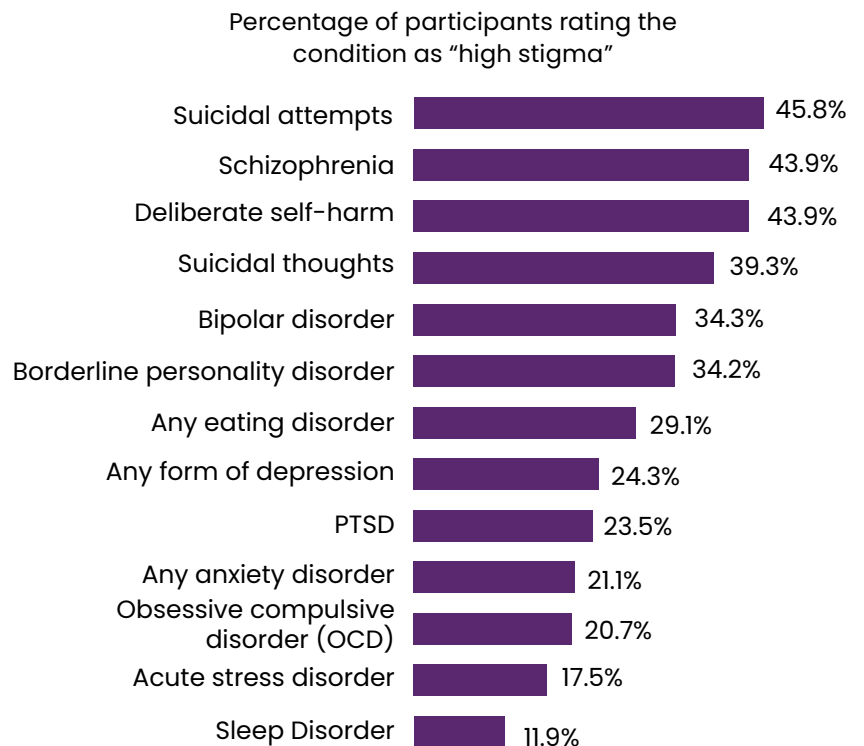
To further reduce feelings of embarrassment, we separated the mental health conditions into three distinct questions based on their associated levels of stigma, as identified in previous research.2 (We also subsequently measured the stigma participants associated with different mental health conditions and found that this aligned with previous research, Figure 4.) This approach attempted to help participants feel more comfortable self-categorizing their mental health by clearly, visually demonstrating that some conditions are less stigmatized than others. For instance, someone with a condition such as stress, which is less stigmatized, might hesitate to associate themselves with conditions such as schizophrenia, which carries heavier stigma.

We found that this method increased participants' likelihood of disclosing multiple mental health conditions. Disclosure rates improved for both highly stigmatized conditions, such as schizophrenia, and the lowest stigmatized conditions, including stress and sleep disorders.

*Figure 4. The relative ranking of perceived stigma associated with different mental health conditions*

Percentage of participants rating the condition as "high stigma"

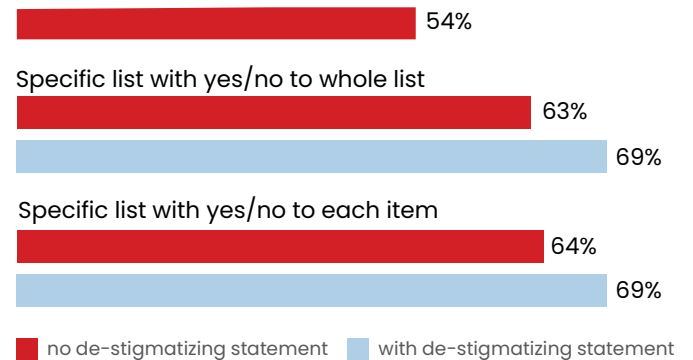| Condition | Percentage |
|---|---|
| Suicidal attempts | 45.8% |
| Schizophrenia | 43.9% |
| Deliberate self-harm | 43.9% |
| Suicidal thoughts | 39.3% |
| Bipolar disorder | 34.3% |
| Borderline personality disorder | 34.2% |
| Any eating disorder | 29.1% |
| Any form of depression | 24.3% |
| PTSD | 23.5% |
| Any anxiety disorder | 21.1% |
| Obsessive compulsive disorder (OCD) | 20.7% |
| Acute stress disorder | 17.5% |
| Sleep Disorder | 11.9% |

# Finding 4: Asking for exact disclosures is more emotionally challenging.

In each of the above tests, we evaluated two versions of the questions: one where participants respond "Yes/No" to having "any of the above conditions" and another where they responded "Yes/No" to each individual mental health condition. While underwriters may prefer detailed disclosures of exact conditions, this approach can be more emotionally challenging for customers as it requires confronting sensitive information more directly.

We found no difference in the disclosure rate between the two versions of questions (Figure 5). However, participants reported feeling more embarrassed and judged when asked to disclose specific conditions. Adding the de-stigmatizing statement reduced these negative emotions, highlighting the importance of considering emotional context to improve both disclosure rates and overall customer experience.

*Figure 5. Disclosing rate of different versions of mental health questions*

54%

**Specific list with yes/no to whole list**

63%

69%

**Specific list with yes/no to each item**

64%

69%

■ no de-stigmatizing statement    ■ with de-stigmatizing statement

# Finding 5: AI may provide an effective confidant for mental health disclosures.

We asked participants to rank different channels based on how comfortable they felt disclosing a mental health condition. Strikingly, half selected an automated chatbot on an insurer's website as the most comfortable option, followed by an online form for purchasing insurance. In contrast, participants rated financial advisers as the least comfortable channel for disclosures.

This aligns with previous research showing that applicants are less likely to disclose sensitive conditions during telephone interviews than through online questionnaires.[3]

Psychological distance theory may explain this behavior. Psychological distance refers to the emotional separation people create between their actions and their immediate environment.[4] Non-human channels, such as chatbots, provide greater emotional distance, reducing feelings of embarrassment, shame, or anxiety. Conversely, human-to-human interactions, whether face-to-face or over the phone, reduce this distance, making it more difficult to discuss sensitive information.

However, non-human channels also present unique challenges. The presence of another person often makes deliberate dishonesty more uncomfortable for most people, while the emotional detachment of non-human interactions can make lying easier.[3] The dual effect of psychological distance highlights the importance of further research in the future as AI and digital channels continue to evolve in the disclosure process.

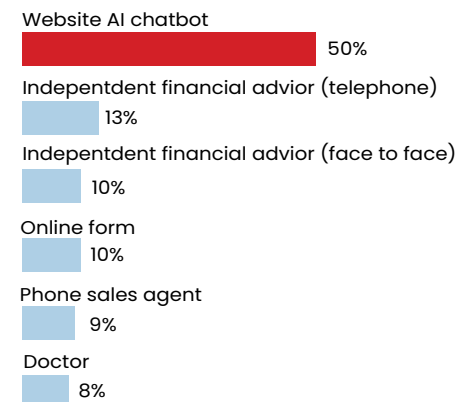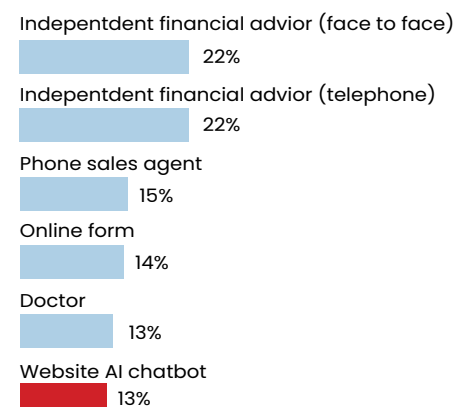*Figure 6. Most comfortable channels for disclosing mental health conditions*

Website AI chatbot
50%

Independtent financial advior (telephone)
13%

Independtent financial advior (face to face)
10%

Online form
10%

Phone sales agent
9%

Doctor
8%

*Figure 7. Least comfortable channels for disclosing mental health conditions*

Independtent financial advior (face to face)
22%

Independtent financial advior (telephone)
22%

Phone sales agent
15%

Online form
14%

Doctor
13%

Website AI chatbot
13%

# Conclusion

To improve mental health disclosures and applicant experiences, insurers must consider the human aspects of answering sensitive questions – how customers process the questions, and the emotions they feel while doing so. This research demonstrates that making questions specific, de-stigmatizing sensitive topics, and grouping conditions by perceived stigma not only improves the effectiveness of mental health questions typically used in underwriting, but also enhances the overall customer experience. By reducing the sense of embarrassment and judgment, insurers can help customers complete applications with greater ease and accuracy.

These findings can also inform other sensitive areas of the insurance journey. Claim forms, like applications, can benefit from simplified, empathetic question design that minimizes embarrassment. More broadly, recognizing how customers perceive different mental health conditions can further support personalized, sensitive claims conversations, fostering empathy and improving the customer experience during challenging times. This approach can also help manage the claim process more effectively by building customer trust and cooperation.

Finally, this research suggests that new technologies may play a valuable role in the application process. Non-human channels, such as chatbots, can increase psychological distance, reducing negative feelings associated with disclosing sensitive information. However, these channels also present risks, such as the potential for increased dishonesty. Understanding how people interact with technology will be a crucial area for insurers to explore as they consider integrating these tools into the customer journey.

## References

1. https://www.psychiatry.org/patients-families/stigma-and-discrimination

2. https://www.cambridge.org/core/journals/bjpsych-open/article/creating-a-hierarchy-of-mental-health-stigma-testing-the-effect-of-psychiatric-diagnosis-on-stigma/3F7F87E0D4F50412B2A90072CFD8B995

3. https://www.rgare.com/knowledge-center/article/how-can-life-insurers-improve-the-dtc-application-process-a-behavioral-science-analysis

4. Giesbrecht, G. F., Müller, U., & Miller, M. (2010). Psychological distancing in the development of executive function and emotion regulation. In B. W. Sokol, U. Müller, J. I. M. Carpendale, A. R. Young, & G. Iarocci (Eds), Self and social regulation: Social interaction and the development of social understanding and executive functions (p. 337–357). Oxford University Press.

5. https://www.abi.org.uk/products-and-issues/choosing-the-right-insurance/health-insurance/mental-health-standards/

6. https://www.rgare.com/knowledge-center/article/searching-for-simplicity--improving-customer-comprehension-in-life-insurance-through-behavioral-science

7. https://www.rgare.com/knowledge-center/article/bringing-order-to-complexity-in-claim-forms-an-rga-behavioral-science-study