

Mind matters

The role of mental wellbeing in health and wellness

Part 5 of our “Big Six” lifestyle factors research

A L&H Trend Spotlight



The BIG 6 lifestyle factors



mental wellbeing



physical activity



environment



sleep



nutrition



substance use

mental wellbeing



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From talk to action



This report on mental wellbeing is part of our series on The Big Six Lifestyle Factors.

When it comes to risk selection, insurers typically assess whether an applicant has a clinically diagnosed mental illness like schizophrenia or bi-polar disorder. In fact, our underwriting guidance around anxiety, mood, stress and adjustment disorders is among the most used section in Life Guide, our industry-leading L&H underwriting guide. That's because these conditions have measurable impacts on mortality and morbidity, are more causal in nature and have been well-studied for years.

But insurers usually don't assess an applicant's mental wellbeing and the broader, more holistic ways it affects health and longevity. How does loneliness, stress and happiness factor in? Does having a sense of purpose and strong coping mechanism influence long-term health outcomes? These are just some potential questions to think about when considering mental wellbeing.

Even before the COVID-19 pandemic, we had already identified mental wellbeing as one of the [Big Six Lifestyle Factors](#) and the pandemic has shone a bright light on the importance of mental wellbeing. According to [consumer research](#) we conducted earlier in the pandemic, 45% of respondents were more concerned about their mental wellbeing as a result of COVID-19. This is on top of the 37% of respondents who had always been concerned about mental health.

As an industry, it's essential that we keep the spotlight on mental wellbeing as we slowly put the pandemic behind us. This report aims to do just that – by illuminating how mental wellbeing impacts longevity and by providing practical suggestions for insurers looking to use mental wellbeing more holistically in the underwriting process and beyond.

Blurred boundaries? The spectrum of mental wellbeing and mental health conditions

Mental wellbeing refers to a state of mental health in which an individual can adequately cope with the normal stresses of life, demonstrates resilience in the face of adversity and participates in his or her community through productive pursuits such as work or volunteering.

The full spectrum of mental wellbeing can include both positive affects like resilience, happiness and life satisfaction, and negative affects such as anxiety or irritability. In short, mental wellbeing is more than the absence of a mental health condition. Although mental wellbeing might seem less 'tangible', the cumulative effects are real. To understand consumers more holistically, it's vital to consider broader measures of wellbeing.

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Section 2

Mental wellbeing

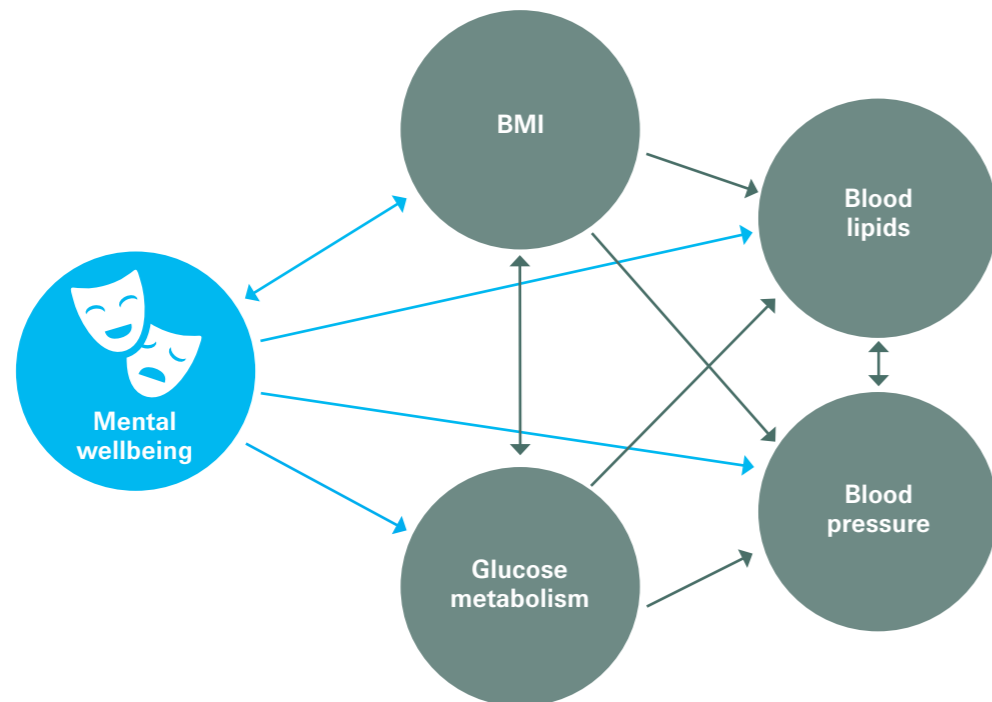
How cardiovascular risk is influenced by mental wellbeing

Mental wellbeing is not limited to the brain. In fact, your mental wellbeing affects your heart and body too.

Healthcare professionals call this the 'mind-heart-body' connection. In a recent meta-analysis of 128 studies, the American Heart Association showed clear associations between mental wellbeing and key cardiovascular disease (CVD) risk factors such as body mass index (BMI), blood pressure, blood lipids and glucose metabolism (see Fig. 1)¹. People who experienced chronic and traumatic stress, anger and hostility, and pessimism were more likely to have high blood pressure, high cholesterol levels, and weight-related issues resulting in higher risk for CVD or type 2 diabetes. On the flip side, positive mental wellbeing was shown to enhance clinical cardiovascular measurements. Mindfulness, for example, has been associated with normal fasting glucose level (<100 mg/dL) and a lower BMI^{2,3}. A key to improving *physical health* may in fact lie with improving our *mental health*.

“A key to improving physical health may in fact lie with improving our mental health.”

Figure 1
Interactions between mental wellbeing and traditional clinical risk factors



Section 3

Mental wellbeing

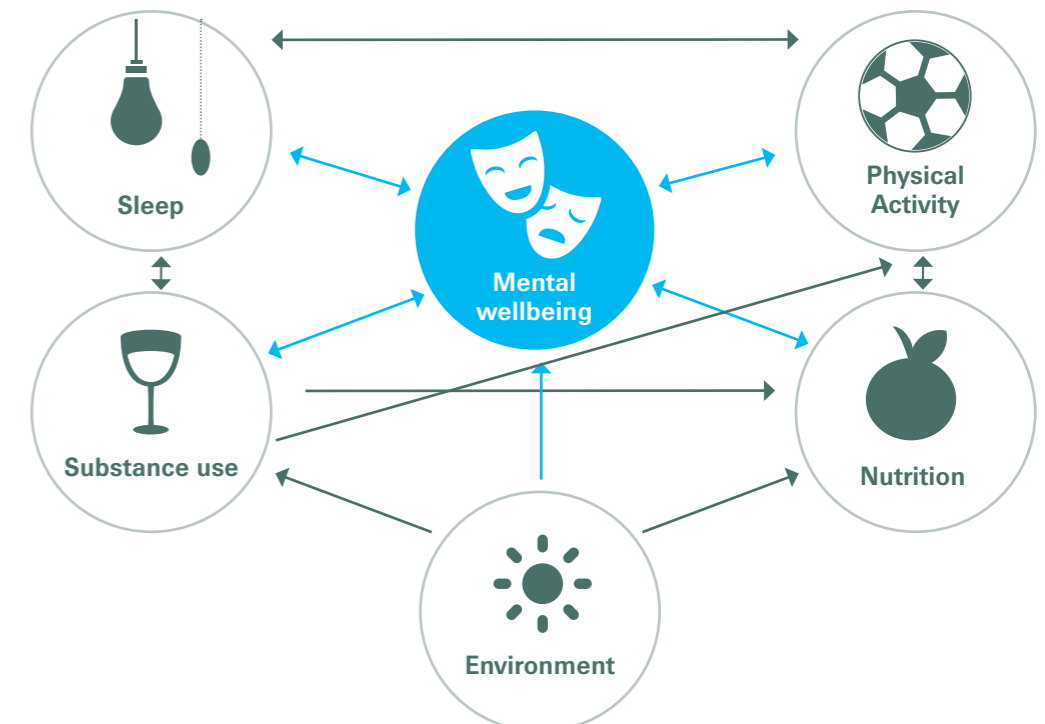
The link between mental wellbeing and a healthy lifestyle

Mental wellbeing affects nearly all aspects of our lives – from our sleep habits to our nutritional choices and substance use, to how much we exercise (see Fig. 2).

And each of these, in turn, influences the state of our mental health. Understanding these interactions and relationships provides a more comprehensive and holistic picture of an individual's overall health.

“Understanding these interactions and relationships provides a more comprehensive and holistic picture of an individual's overall health.”

Figure 2
Interactions between mental wellbeing and lifestyle risk factors



Sleep

[As we covered previously](#), sleep and mental wellbeing are closely related. Too much or too little sleep can impact our mental states. In general, evidence shows that healthy amounts of sleep are associated with better mood, improved productivity and even greater life satisfaction^{4,5}.

Nutrition

Our food and mood are intricately linked. So much so that we highlighted the symbiotic relationship for last year's World Mental Health Day ([see here](#)). While poor mental health can negatively impact nutritional choices and vice versa, the opposite is also true⁶. Factors like happiness, optimism, gratitude and sense of purpose have been found to be associated with better diets⁷.

Physical activity

The Latin phrase "Mens sana in corpore sana" or "a healthy mind in a healthy body" describes the concept of synergy between the mind and the body, meaning that a healthy body is needed for a healthy mind and vice versa. Several studies have shown that higher levels of mindfulness and a greater sense of purpose are associated with greater physical activity levels^{8,9,10}. And – physical activity enhances our mental wellbeing. Even a 10-minute brisk walk increases mental alertness, energy and positive mood and exercising regularly can increase our self-esteem and reduce stress and anxiety^{12,13}.

Substance use

Studies show optimistic individuals with a greater sense of purpose lead healthier lives and are less likely to smoke cigarettes and consume high amounts of alcohol^{14,15}. A recent study of 2.5 million Americans showed that life satisfaction or positive affect can serve as unique predictors of health behaviour, like smoking, even after controlling for a wide range of variables¹⁶.



Is mental wellbeing associated with lower disease and mortality risk?

It's complicated. Similar to the challenges of nutritional studies discussed in Part 3 of The Big Six Lifestyle Factors, mental wellbeing is hard to quantify and measure.



Each study seems to use slightly different definitions. Some studies focus on very specific sub-clinical measurements, like happiness or social connectedness, while others concentrate on clinical components of mental health, like anxiety disorders or depression. This makes it challenging to compare findings. Long-term robust research is often lacking too, making it hard to draw bold causal conclusions.

Further, due to subjectivity and complexity of mental wellbeing, there are few holistic models of mental wellbeing that have wide-spread use in the general population and have enough robust evidence to use in risk assessment.



Figure 3

Effect estimates for associations of positive and negative psychological factors with all-cause mortality and cardiovascular events

 POSITIVE psychological factors			 NEGATIVE psychological factors		
Factor	Study end point	Effect estimates (95% CI)	Factor	Study end point	Effect estimates (95% CI)
Sense of purpose	All-cause mortality	RR 0.83 (0.75–0.91)	Anxiety	CVD mortality	RR 1.41 (1.13–1.76)
Optimism	All-cause mortality	RR 0.86 (0.80–0.92)	Work-related stress	Incident CVD events	RR 1.4 (1.2–1.8)
Positive affect	Incident CHD	HR 0.78 (0.63–0.96)	Pessimism	CHD mortality	OR 2.17 (1.21–3.89)
Mindfulness	Good cardiovascular health	PR 1.83 (1.07–3.13)	Social isolation and loneliness	Incident CVD events	RR 1.5 (1.2–1.9)

Adapted from Levine et al (2021)

RR = Relative Risk; OR = Odds Ratio; PR = Prevalence Ratio; CVD = Cardiovascular Disease; CHD = Coronary Heart Disease

But we can draw some broad generalisations by looking at the right studies. Recent meta-analyses suggest that subjective wellbeing measures such as sense of purpose, optimism and positive affect can be protective against premature overall mortality and may be significantly associated with a decreased risk of cardiovascular events (see Fig. 3)^{17,18,19}.

It's worth noting that mental wellbeing may also have effects on outcomes other than mortality, which are not as objective and easy to measure. Additional studies indicate that greater wellbeing levels are related to lower risk of cardiometabolic diseases, infectious illness and physical decline. The impact on cancer mortality is less clear^{20,21,22}. Moving beyond health outcomes, mental wellbeing has also been related to higher levels of employment, income and work retention²³.

On the other hand, negative psychological factors like anxiousness, work-related stress or pessimism can also impact health outcomes – but typically in the opposite direction. In a recent meta-analyses, social isolation and loneliness were linked to 50% greater risk of cardiovascular events, while pessimism was a significant predictor of coronary heart disease (CHD) mortality with the adjusted risk being double among those in the highest versus lowest quartile (see Fig. 3)^{24,25}.

Does this mean that optimism is the new prescription medication? Should insurers and doctors start promoting strong mental wellbeing to improve health outcomes? What about employers supporting the mental wellbeing of their workforce to reduce turnover? These are interesting and purposefully audacious questions. More multi-dimensional and longitudinal studies are needed to establish more definitive cause-effect relationships for parameters of mental wellbeing. In the meantime, insurers could start to evaluate which individuals who do not have a clinically diagnosed mental health condition, such as depression, are more likely to develop a mental health condition. In practice, this means moving beyond a yes/no binary question around whether an applicant has been diagnosed with a condition to utilizing screening questionnaires that look to uncover someone's likelihood of developing common mental health conditions.

Screening tools used to evaluate the potential of developing mental health disorders have a stronger evidence base that supports their utility, and their reliability and consistency may make them good candidates for use in risk assessment. Screening for potential mental health conditions not only helps insurers more adequately understand and manage risk, but it also opens the door to new opportunities for early intervention and more tailored policyholder support.



What does this mean for insurers?

It's clear that our minds and bodies affect one another. What's not so clear is what insurers can do to better reflect these synergies in the underwriting process, especially when assessing an applicant's clinical mental health is standard practice. We provide practical considerations for how insurers can use mental wellbeing to create a more personalised and holistic customer journey – from underwriting all the way to health management.

1

Consider embedding mental wellbeing into underwriting by screening for early signs of common mental health conditions

- Screening tools are a good first step to move beyond asking only about clinically diagnosed conditions and understanding the comparative likelihood for conditions to develop in the future.
- Self-disclosed questionnaires like the Kessler Psychological Distress Scale or the Perceived Stress Scale make for consistent, reliable and validated screening tools. With self-disclosure, there is always the risk of non- or under-disclosure. Here, behavioural science can promote more honest answers.
- Over time, there may be potential to expand screening criteria to additional parameters if more long-term causal data emerges.

2

Engage customers around broader mental wellbeing components like optimism, mindfulness and sense of purpose through wellness programs

- Assessing applicants on more correlative and nuanced measures of mental wellbeing is challenging and adds less protective value.
- But supporting policyholders by helping to cultivate positive mental wellbeing is a win-win for insurers and customers alike.
- Don't forget to focus on improving wellbeing holistically – improving other lifestyle factors should also improve mental wellbeing and vice versa.

3

Remember, underwriting is just one component – strive to build comprehensive products & propositions that support policyholders

- Digital apps can play a role in promoting positive affect, building mental resilience and managing stress and anxiety but are only part of the equation.
- Include early and tailored intervention mechanisms into the product design to prevent poor mental wellbeing from becoming chronic. Screening tools can also help here.
- Consider flexible benefits or additional coverage options to support policyholders experiencing poor mental wellbeing.

4

Don't forget about the wellbeing of your own workforce

- Promoting positive mental wellbeing amongst your team can help prevent burnout and turnover, and can facilitate a faster return to work if they do experience prolonged mental health illness.

Learn more
at [swissre.com/
TheBigSix](https://www.swissre.com/TheBigSix)

More people are recognizing the vital role mental wellbeing plays in overall health and wellness.

This trend was growing before COVID-19 and the pandemic has only accelerated our collective awareness. Let's use this heightened understanding to move beyond awareness and into action. Insurers can and should consider incorporating components of mental wellbeing to inform more personalised, holistic risk assessment. They can also strengthen relationships with customers by providing tools to promote positive mental wellbeing and lead long, healthier lives.

We have embedded this 'Bix Six' research directly into Life Guide and are updating our mental illness underwriting guidance with the latest evidence to be as inclusive as possible. This allows us to continue supporting applicants with a history of mental health conditions, while also pushing our understanding beyond *mental illness* to *mental wellbeing*. We're also developing innovative propositions in the mental health space to better support insurers and consumers alike. After all, we all want to be happy, satisfied, and pursue a life that has meaning.

It's time to move from exchange to change. Sound interesting? Get in touch with your local Swiss Re Underwriting Proposition Lead.

We're smarter together

References

1. Levine, G. N., Cohen, B. E., Commodore-Mensah, Y., Fleury, J., Huffman, J. C., Khalid, U., Labarthe, D. R., Lavretsky, H., Michos, E. D., Spatz, E. S., & Kubzansky, L. D. (2021). Psychological Health, Well-Being, and the Mind-Heart-Body Connection: A Scientific Statement From the American Heart Association. *Circulation*, 143(10), e763–e783. <https://doi.org/10.1161/CIR.0000000000000947>
2. Loucks, E. B., Britton, W. B., Howe, C. J., Eaton, C. B., & Buka, S. L. (2015). Positive Associations of Dispositional Mindfulness with Cardiovascular Health: the New England Family Study. *International journal of behavioral medicine*, 22(4), 540–550. <https://doi.org/10.1007/s12529-014-9448-9>
3. Loucks, E. B., Schuman-Olivier, Z., Britton, W. B., Fresco, D. M., Desbordes, G., Brewer, J. A., & Fulwiler, C. (2015). Mindfulness and Cardiovascular Disease Risk: State of the Evidence, Plausible Mechanisms, and Theoretical Framework. *Current cardiology reports*, 17(12), 112. <https://doi.org/10.1007/s11886-015-0668-7>
4. Magnavita, N., & Garbarino, S. (2017). Sleep, Health and Wellness at Work: A Scoping Review. *International journal of environmental research and public health*, 14(11), 1347. <https://doi.org/10.3390/ijerph14111347>
5. Shin, J. E., & Kim, J. K. (2018). How a Good Sleep Predicts Life Satisfaction: The Role of Zero-Sum Beliefs About Happiness. *Frontiers in psychology*, 9, 1589. <https://doi.org/10.3389/fpsyg.2018.01589>
6. van den Berk-Clark, C., Secrest, S., Walls, J., Hallberg, E., Lustman, P. J., Schneider, F. D., & Scherrer, J. F. (2018). Association between posttraumatic stress disorder and lack of exercise, poor diet, obesity, and co-occurring smoking: A systematic review and meta-analysis. *Health psychology : official journal of the Division of Health Psychology, American Psychological Association*, 37(5), 407–416. <https://doi.org/10.1037/hea0000593>
7. Hingle, M. D., Wertheim, B. C., Tindle, H. A., Tinker, L., Seguin, R. A., Rosal, M. C., & Thomson, C. A. (2014). Optimism and diet quality in the Women's Health Initiative. *Journal of the Academy of Nutrition and Dietetics*, 114(7), 1036–1045. <https://doi.org/10.1016/j.jand.2013.12.018>
8. Ahmadi, N., Hajsadeghi, F., Mirshkarlo, H. B., Budoff, M., Yehuda, R., & Ebrahimi, R. (2011). Post-traumatic stress disorder, coronary atherosclerosis, and mortality. *The American journal of cardiology*, 108(1), 29–33. <https://doi.org/10.1016/j.amjcard.2011.02.340>
9. Loucks, E. B., Britton, W. B., Howe, C. J., Eaton, C. B., & Buka, S. L. (2015). Positive Associations of Dispositional Mindfulness with Cardiovascular Health: the New England Family Study. *International journal of behavioral medicine*, 22(4), 540–550. <https://doi.org/10.1007/s12529-014-9448-9>
10. Loucks, E. B., Schuman-Olivier, Z., Britton, W. B., Fresco, D. M., Desbordes, G., Brewer, J. A., & Fulwiler, C. (2015). Mindfulness and Cardiovascular Disease Risk: State of the Evidence, Plausible Mechanisms, and Theoretical Framework. *Current cardiology reports*, 17(12), 112. <https://doi.org/10.1007/s11886-015-0668-7>
11. Ekkekakis, P., Hall, E. E., VanLanduyt, L. M., & Petruzzello, S. J. (2000). Walking in (affective) circles: can short walks enhance affect?. *Journal of behavioral medicine*, 23(3), 245–275. <https://doi.org/10.1023/a:1005558025163>
12. Stoll, Oliver & Alfermann, Dorothee. (2002). Effects of Physical Exercise on Resources Evaluation, Body Self-Concept and Well-Being Among Older Adults. *Anxiety Stress and Coping - ANXIETY STRESS COPING*. 15. 311-319. <https://doi.org/10.1080/1061580021000020752>
13. Salmon P. (2001). Effects of physical exercise on anxiety, depression, and sensitivity to stress: a unifying theory. *Clinical psychology review*, 21(1), 33–61. [https://doi.org/10.1016/s0272-7358\(99\)00032-x](https://doi.org/10.1016/s0272-7358(99)00032-x)
14. Morimoto, Y., Yamasaki, S., Ando, S., Koike, S., Fujikawa, S., Kanata, S., Endo, K., Nakanishi, M., Hatch, S. L., Richards, M., Kasai, K., Hiraiwa-Hasegawa, M., & Nishida, A. (2018). Purpose in life and tobacco use among community-dwelling mothers of early adolescents. *BMJ open*, 8(4), e020586. <https://doi.org/10.1136/bmjopen-2017-020586>
15. Steptoe A. (2019). Happiness and Health. *Annual review of public health*, 40, 339–359. <https://doi.org/10.1146/annurev-publhealth-040218-044150>
16. Kushlev, K., Drummond, D. M., & Diener, E. (2020). Subjective Well-Being and Health Behaviors in 2.5 Million Americans. *Applied psychology. Health and well-being*, 12(1), 166–187. <https://doi.org/10.1111/aphw.12178>
17. Martín-María, N., Miret, M., Caballero, F. F., Rico-Urbe, L. A., Steptoe, A., Chatterji, S., & Ayuso-Mateos, J. L. (2017). The Impact of Subjective Well-being on Mortality: A Meta-Analysis of Longitudinal Studies in the General Population. *Psychosomatic medicine*, 79(5), 565–575. <https://doi.org/10.1097/PSY.0000000000000444>

18. Cohen, R., Bavishi, C., & Rozanski, A. (2016). Purpose in Life and Its Relationship to All-Cause Mortality and Cardiovascular Events: A Meta-Analysis. *Psychosomatic medicine*, 78(2), 122–133. <https://doi.org/10.1097/PSY.0000000000000274>
19. Rozanski, A., Bavishi, C., Kubzansky, L. D., & Cohen, R. (2019). Association of Optimism With Cardiovascular Events and All-Cause Mortality: A Systematic Review and Meta-analysis. *JAMA network open*, 2(9), e1912200. <https://doi.org/10.1001/jamanetworkopen.2019.12200>
20. Boehm, J. K., & Kubzansky, L. D. (2012). The heart's content: the association between positive psychological well-being and cardiovascular health. *Psychological bulletin*, 138(4), 655–691. <https://doi.org/10.1037/a0027448>
21. Pressman, S. D., Jenkins, B. N., & Moskowitz, J. T. (2019). Positive Affect and Health: What Do We Know and Where Next Should We Go?. *Annual review of psychology*, 70, 627–650. <https://doi.org/10.1146/annurev-psych-010418-102955>
22. Kim, E. S., Hagan, K. A., Grodstein, F., DeMeo, D. L., De Vivo, I., & Kubzansky, L. D. (2017). Optimism and Cause-Specific Mortality: A Prospective Cohort Study. *American journal of epidemiology*, 185(1), 21–29. <https://doi.org/10.1093/aje/kww182>
23. Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: does happiness lead to success?. *Psychological bulletin*, 131(6), 803–855. <https://doi.org/10.1037/0033-2909.131.6.803>
24. Steptoe, A., & Kivimäki, M. (2013). Stress and cardiovascular disease: an update on current knowledge. *Annual review of public health*, 34, 337–354. <https://doi.org/10.1146/annurev-publhealth-031912-114452>
25. Pänkäläinen, M., Kerola, T., Kampman, O., Kauppi, M., & Hintikka, J. (2016). Pessimism and risk of death from coronary heart disease among middle-aged and older Finns: an eleven-year follow-up study. *BMC public health*, 16(1), 1124. <https://doi.org/10.1186/s12889-016-3764-8>

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