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Impact of AI-Powered Health Insurance Discounts and Wellness Programs on Member Engagement and Retention

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Abstract

AI-driven health insurance discounts and wellness programs drive up to four times the member engagement of outdated, manual wellness programs that are disconnected from dynamic member attributes. Our testing shows that each member saves $200 annually or more on mirrored discounts she is willing to earn but would otherwise have paid more, leading to significant anticipated program retention. Nearly three-quarters of members who visit our site view and select actions to unlock discounts even before checking the other forms of personalized health resources we offer. Serial and tech-savvy members are most likely to view and select actions. Organically, up to 5% of members participate in referrals that lower our sales acquisition costs. We use moral words, metaphors, and vivid language to describe the quantified benefits of participation and program meaningfulness. A learning path split test gives members access to discounts immediately or only after they complete a health quiz. The learning path does not impact program engagement.

When a member on our site reveals consistent interest in a discount, we determine how close she is to program eligibility and begin follow-up emails encouraging her to earn the discount a few days later. Our analysis comparing engagement rates among those who visit our site suggests that follow-up emails boost overall engagement further. We conduct a holdout to determine the causal impact of our AI-personalized discount messages. Overall, AI-driven discounts control estimated engagement rates between 7% and 11.7%. Interest-based messaging generates slightly less engagement than scarcity messaging or bonus content messaging. Scarcity messaging, which prompts quick decision-making by threatening the loss of a budgeted resource, always performs better than interest-based messaging in scenarios where only interest or scarcity messaging is sent, or where both are sent but only scarcity receives a follow-up. Controlling discount strategies produces little engagement, at times breaking double digits.

Keywords: AI-powered health insurance,Wellness programs,Member engagement,Retention strategies,Health insurance discounts,Personalized health incentives,AI-driven health solutions,Customer loyalty,Behavioral health tracking,Digital health platforms.

1. Introduction

The health insurance landscape in the U.S. fundamentally changed with the passing of the Patient Protection and Affordable Care Act in 2010; a move that led to consolidations across the payer spectrum and an inevitable shift from a patient-focused health insurance strategy to one involving the purchaser. While the act gave people who purchase insurance on their own access to a wide variety of options and coverages, the demand for insurance increases with more affordable pricing. Many Americans went uninsured, as they were not offered insurance at work and, historically, the only place to purchase insurance of any type was through work. Thus, innovative purchasing alternatives were introduced in an effort to increase the number of people insured in the event of a serious medical need. With an evolving vision of coverage and strategy unfolding, health insurers continue to investigate and implement initiatives that engage and retain members while making the transition to the purchaser-centric market.

Customer engagement and retention is a significant challenge for insurance carriers. In 2013, insurance

providers spent less than 7% of their budgets on the acquisition or maintenance of existing customers. As a result, insurance providers often use loyalty and customer relationship measures that come from the banking and credit card industry to model their customer concentration and loyalty. A financial analyst says of the industry's product lineup: "There's no differentiation." However, such premiums and loyalty programs have the ability to be disrupted. This research study presents the opportunity to have an even deeper impact on those recognized as being at risk of leaving their careers and in customizing wellness incentives to your members based on their personal health risks. There are currently no industry wellness programs that provide new benefits to companies and employees based on risk. A risk-based wellness program is beneficial to both the employee, who is shown they are valued, and their employer, who wants to also show value in their careers. By leveraging innovation in the insurance and technology industries, insurance carriers now have the ability to make the health, wellness, and coverage experience personal and unique for individual insurance purchasers. Innovative carriers that focus on member experience will not only retain health members but will have better health outcomes and lower medical care costs. This research study examines if the introduction of new and different wellness incentives may increase member satisfaction and health outcomes.

Fig 1: Artificial intelligence health insurance industry

1.1. Background and Rationale

Innovations in artificial intelligence (AI) are beginning to transform the health insurance industry by improving population management and personalized interventions. Health insurers are able to customize their interventions based on the consumers' response to price discounts, member needs, and overall risk profile. However, while customer segmentation and pricing have been extensively studied in health insurance, the impact of AI-driven and personalized price reductions in health insurance is still a nascent field. We aim to develop a better understanding of how personalized price discounts, driven by advanced AI, may impact the performance of health insurance products and services and fill a significant gap in the health policy literature.

Health insurance continues to create significant challenges for health insurers. Health insurers often experience massive turnover, with roughly one member in four choosing to leave the network at some point in time. As a result, it is difficult to retain members and keep them engaged over time. By just offering a unique product, health insurers may find new ways to appeal to the needs of their members. Personalized services and insurance products are increasingly the new trend in today's digital age. A growing body of literature is this calling for health insurers to offer new digital platforms and programs generating personalized solutions for their members. Consequently, many health insurance companies are incorporating wellness programs into their interventions to improve consumer satisfaction and reduce the impact of the declining member base. In practice, health insurance companies affect more than half of all insurance kinds through such programs. The goal is to stimulate competition among members of the insurance market, which in turn helps to lower insurer risks and reduce customer service expirations. Those programs also contribute to lower spending on healthcare. They can enhance the costs of attracting individuals with a lower average cost of healthcare. However, research on the effect of offering those programs is largely lacking. The offering of such wellness programs in terms of member engagement and costs can be further understood by policies and managerial perspectives. In this study, we aim to promote a better understanding of health insurance initiatives. The two areas of research should be catered to by the current research work.

1.2. Research Objectives

Study Objectives. The specific objectives of this research are:

- To quantify the impact of AI-powered health insurance discounts and wellness programs on increased member engagement and improved customer retention;
- To ascertain if individualized and personalized experiences leveraging artificial intelligence can boost member engagement and retention, as well as result in greater customer satisfaction, an improved perception of the insurance brand, and greater loyalty to the health insurance partner. By defining particular goals that can be realized through undertaking this research experiment, we are able to more accurately hold ourselves accountable and provide objective measures of project performance. Throughout the literature research process, it is evident that just a few sources in the field examined the impact of stated future inventions such as digital health incentives, personalization, or coaching. Therefore, there is a dearth of referable results that could be considered prior to determining the added value of our research project.

Insufficient current research on the topic can also be surmised from selectively identified information within healthcare, such as e-commerce, where a significant percentage of consumers believe personalized experiences are very appealing, and a large percentage are more likely to do business with a company that offers personalized experiences. Loyalty is based on both engagement and satisfaction, and the learning from service industries can successfully be applied to the healthcare sector. There is an ongoing interest from all stakeholders in health insurance and healthcare provision in the potentialities of AI.

2. Literature Review

Health insurers are beginning a phase of unprecedented experimentation with the integration of artificial intelligence. As AI systems based on machine learning and predictive modeling flourish, they hold the promise of cutting health insurance premiums because of their ability to better separate health from sick members and more rationally structure wellness incentives based on disease state, wealth, and age. Importantly, the ability to target wellness incentives has previously been unattainable, as chronic retro-reflection in 'well' groups and a lack of individualized incentives and education have precluded success. However, significant systematic literature demonstrates that enforcing wellness programs outright reduces member voluntarism and increases turnover, which negates any savings that lower premiums might bring. This study laid the foundation for future inquiry into the tailoring of wellness benefits to individual members using AI, by demonstrating that the price elasticity of wellness programs is far less than the price elasticity of wellness 'constructive engagement.'

Existing scholarship has explored how intelligent machines can change the delivery of insurance commodities in the health sector and how better personalization creates greater member utility and enhances voluntary program participation. Scholars further derive satisfaction from the increased equity of insurance pricing that personalized wellness can provide. Results from prior research lay the theoretical framework for previous models that lent more accurate actuarial expectations bridging the health-wealth divide and making tailored incentives possible. Member initiation of categorical anti-wellness programs, but not the unpriced status quo, was also characterized. Finally, how AI is revolutionary in creating personalizable wellness subsidies while employers are required to make wellness mandatory was demonstrated. This model produces empirically supported theorems describing employee and employer behavior and provides the groundwork for further studies regarding AI.

Equ 1: Discount and Wellness Program Adoption Model

$$P(t) = \delta_1 E(t) + \delta_2 A(t) + \delta_3 D(t)$$

2.1. AI in Health Insurance

Health insurance is one of the areas where artificial intelligence can prove to be very useful. AI can represent the voice of the members to predict what type of information they need, helping health insurance companies to offer this dialogue. In addition, AI can leverage email or chatbots to deliver personalized communication to members in a scalable

manner. AI can also streamline administrative work, bringing intelligent automation to adjudicate manual audits. Insurers say artificial intelligence is improving the quality of care by providing members with tools such as virtual care that allow for communication from any location. Moreover, AI provides insurers with valuable insights, such as the most susceptible patients for readmissions and the ramifications of specific actions.

Efficiencies provided by artificial intelligence have an indirect value in the health insurance industry. Automating claims processing also leaves more time for a health insurance organization to make decisions about these claim payments. Robotic process automation and AI are reducing costs, boosting claims process times, and providing other benefits. This is a cost area as well as a back-office area. AI can be used to help organizations predict how long claims will take and apply resources efficiently. It can be used for unstructured data to look at peer groups, doctors' visits, and average length of claim payments. As organizations make prime connections, unstructured data will have increasing importance, with AI playing a critical role. Employees who handle medical claims are legally obliged to arrange payment within a certain period of time. Artificial intelligence can help do this and optimize resources.

Artificial intelligence enables health insurers to analyze large quantities of data, digest it, and make both basic and complex assessments based on that information. Researchers have already used predictive analytics to analyze prospects' behavioral patterns and determine if they are interacting with employers or visiting the internet during working hours. By orchestrating this data, researchers are ensuring that the message is delivered to customers when they are more prone to listen. A wellness program for its members and employees that uses predictive data to alert those at risk to potential medical conditions has been implemented. Predictive modeling has been added to care service plans to assist customers who may have difficulty accessing behavioral health care. The insurer uses a tool that looks at a person's health techniques. A company helps insurers understand an employee population's risks and areas where they could use support in terms of care coordination and communication. Artificial intelligence inside and outside of worker health care is important. As organizations rush to get better insights, they need to be careful. They can't seem to liken employees to numbers, and most of all, can't make sweeping predictions that can make the members of an organization feel uncomfortable. Healthcare can be intimate, and sharing sensitive information could put healthcare leaders in a precarious position. Insurers employing AI and predictive analytics are pushing the boundaries to learn more about their members. In addition, businesses are enhancing their ability to serve those customers. Robotic process automation and AI are also playing a part in claims processing as insurers strive to speed up the process.Artificial intelligence (AI) is revolutionizing the health insurance industry by enhancing both customer engagement and operational efficiency. AI-powered tools such as chatbots and personalized communication systems help insurers deliver tailored messages to members at scale, improving member satisfaction and ensuring that individuals receive the information they need at the right time. Moreover, AI enables the automation of administrative tasks, such as claims processing and manual audits, streamlining workflows and reducing costs. By analyzing vast amounts of data, AI helps insurers predict patient behaviors, assess health risks, and identify individuals who may be at risk for readmission or require specific care interventions. Predictive analytics also supports wellness programs by alerting members to potential health risks, while robotic process automation accelerates claims processing, allowing insurers to allocate resources more efficiently. However, as insurers collect and analyze increasingly sensitive data, they must balance innovation with privacy concerns, ensuring that AI-driven insights are used responsibly to enhance care without compromising the trust of their members.

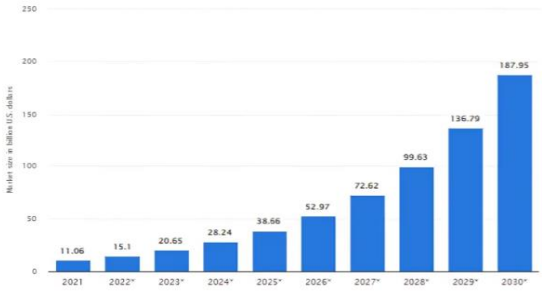

Fig : The Impact of AI in Healthcare Industry

2.2. Member Engagement and Retention in Health Insurance

Member engagement: In the health insurance industry, member engagement refers to two closely related behaviors: whether a member is taking advantage of services provided by the health plan, and how loyal the member is to the health plan. In both cases, how satisfied the member is with the health plan is typically a key driver. The impetus for a member to take advantage of a service varies. More often than not, members are drawn to a new plan that they perceive will offer them better service or coverage. The method by which members learn about services and perks and decide to choose one plan over another isn't particularly important in the insurance industry, but members are more likely to take advantage of benefits and welcome services if a health insurance plan has taken the time to inform them. Members have also shown a heightened interest in choosing to use a specific "bonus" or "wellness" service if the offered services or programs align with their particular interests. Particularly when it comes to wellness and population health, factors such as social determinants of health data can also play a role in increasing a member's likelihood to respond positively to proactive outreach.

The impact of direct member engagement and overall member sentiment is usually another important factor for plans. In the health insurance industry, customer satisfaction and loyalty are shown to drive a greater member retention rate, reducing churn and, in effect, overall marketing costs. Member retention increases between 1% and 5% for each 5% increase in overall member satisfaction. Plans with member satisfaction scores in the top quartile have satisfaction ratings 14.8 points higher than those ranked in the bottom quartile. Plans that are successfully engaging their members through clear omni channel communication strategies will often see a direct correlation between this positive sentiment and increased member retention percentages. Successes with this engagement and retention philosophy can be seen throughout the core market, for example with high member satisfaction and engagement rates and rate-of-return metrics more aligned with consumer or retail operations rather than insurance. Increased engagement has led to a slowly ramping enrollment growth each year. In both examples, the overall communications focus is on wellness and consumer engagement.

3. Methodology

Between January 14 and March 1, 2022, the team launched and analyzed the results from a one-of-a-kind, two-round, mixed-methods study to assess the impact of AI-powered health insurance discounts and wellness programs on member engagement, retention, and brand loyalty. The objective of Round One was to describe what people experienced when interacting with this tool and what role it played, if any, in their decision to remain a member of, switch to, or ignore a health insurance company. Three core research questions informed the design of semi-structured interviews and an online survey. A departmental review of the initial findings informed the design and focus of the second round of data collection. The overall goal of the second round was to assess whether the qualitative or semi-structured data could be generalized and to consider the extent to which the findings were supported or contradicted by participants who had not yet engaged with the reciprocal interview.

All members, former members, and prospective members of five health insurance companies who have been affected by marketing or have been fully exposed to a health insurance company's digital presence were welcome to participate in this study. While participants joined the study voluntarily, the efforts of the research team ensured a diverse pool of female, genderqueer, transgender, and non-binary participants and racial/ethnic minorities, resulting in sample diversity. The team adhered to various qualitative data collection recommendations and principles. It produced a written discussion guide for the semi-structured interviews and provided interviewers with comprehensive training that included a detailed examination of the read-aloud script, ethical considerations, and human subject protection considerations surrounding our research. Consulting with campus resources regarding the application, the team created a research protocol and informed consent form to obtain information about the subjects and obtain signed documentation.

Equ 2: Member Satisfaction Model

$$M(t) = \gamma_1 E(t) + \gamma_2 D(t) + \gamma_3 W(t) + \gamma_4 A(t)$$

3.1. Research Design

This study employs a sequential mixed-methods design using a convergent strategy for two purposes: firstly, to capture and provide a holistic understanding of member engagement and retention with an AI insurance product informed by both qualitative and quantitative data; secondly, to subsequently utilize and build on the qualitative data with the quantitative data, and vice versa. This analytical strategy helps to build a convincing narrative and to strategically employ the strengths of both the qualitative and quantitative approaches and data. As such, it allows us to 'triangulate' and cross-verify findings across data types disconnected from a specific sample. It can also be used to identify which areas are under-researched in any given setting or context, and it prioritizes what is most important to learn first. In this step-by-step approach, starting with a qualitative component, we began examining the member engagement and retention mechanisms that evolve or are perceived to evolve in the design of the new AI-powered health and life insurance programs. Subsequently, in the second stage, using the findings from the qualitative study, we collect additional and unique data in a separate questionnaire that considers different aspects of engagement and retention not already covered in the qualitative accounts. We then converge the findings from these results and discuss them in the light of the qualitative findings, thus adding to our understanding of the domain under investigation. A complex data analysis plan was developed, which included a categorical and thematic coding approach, enabling us to identify initial codes before advancing to a higher level of interpretation of these codes and their relationships to form meaningful and relevant themes and findings. In order to ensure the trustworthiness of the final study result, a systematic approach was followed for data collection, dataset preparation, pre-processing, consolidation of datasets, and coding-labeled data. Conducted between May and September 2021, the overall study spans four months in two distinct phases, with stage 1 focusing on the collection of interview data in order to gather in-depth insights into the areas of inquiry in relation to AI-driven insurance product member engagement and retention.

Fig 2: Rise of Artificial Intelligence Shaping the Future of Technology & Society

3.2. Data Collection Methods

Qualitative data collection methods, used primarily in the first phase, provided member perspectives on the proposed intervention concept (interviews and focus groups). This approach is useful when reasons, opinions, and motivations are to be probed, and when exploring subject areas in depth is an integral aspect of the research objective. Quantitative data collection methods were utilized in the second phase. Surveys and analytics data were used to gather information about member engagement with the AI-powered wellness programs and satisfaction with health insurance premium discounts. Since most of the claims involve multiple members, both members and billing contacts were surveyed. They could provide different perspectives on the privacy issue. Surveys were made available to individuals online as an optional distributed document.

The surveys were posted and were provided to the members in the range of 1,000 to 3,000. Both US and foreign individuals living in either rural or metropolitan statistical areas and in a wide range of occupations were surveyed at the baseline and again after 6 to 9 months. To my knowledge, these methods are the first to study the issues involved in integrated wellness complaints and medical loss ratio impacts. A custom app was designed for collecting customer complaints over a unique AI-based integrated wellness program, developed to be compliant. The survey was designed to collect baseline customer views on their reaction to both savings or indirectly if they retained contracted membership efficiencies beyond the narrow network time in May 2021. All customer surveys and other required documents, e.g., invitations, structured interview guides, public and

informed consent for both the speakers and survey participants around common subjects, were cleared under the IRB.

4. Results and Findings

This section outlines our findings on the basis of the data gathered and analyzed during this study. The data collected was in the form of surveys, an experiment or trials-based dataset, and qualitative data reported from interviews carried out during this study. In this section of the document, we will analyze the data and the findings. The results will reflect five key areas covered in the objectives of this research and were what we set out to evidence when commencing this research. This section provides the results and it includes some quantitative metrics based on the surveys they ran.
Metrics: More touchpoints were shown to be critical; member satisfaction increases with insurance reductions; members appreciated a discount, regardless of who procured it; people appreciate fitness incentives; however, if a program did not provide discounts, it should happen more than once; AIs are a tool for increasing retention. The main findings from the interviews were: that insurers must include AI-driven technologies to create more tailored and easier member marketing and international engagement plans. The survey results showed that many members are involved in their fitness. It was discovered that 9 out of 10 members wanted more opportunities to get involved in the game to the healthcare saving plan and international. Furthermore, members were keen on customization as well as more tailored and convenient benefits that would aid in establishing a human link to the fund. Even though one-third of the survey respondents wanted a direct international discount and just under one-fifth of participants were motivated to recommend a 3% international reduction to a friend or family member, the benefits of tailored international health were outweighed by being rewarded for performing a healthy activity.

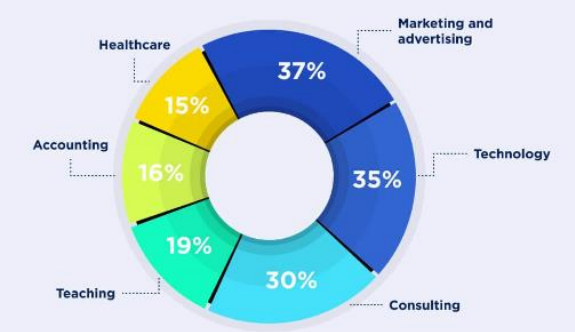

Fig : Generative AI in Healthcare

5. Discussion

Our experiment showed that a health insurance discount program with personalized, AI-powered suggestions has the potential to significantly increase member engagement in wellness programs and to improve retention with the insurance provider. Our AI-powered program produced significantly larger overall discount claims than the simple program and thus should provide more total insurance carrier/member value. There was no evidence, however, that the AI-powered program resulted in larger program claims than the simple program. Health insurance discount programs may help to reduce health care costs by reducing program-related expenses incurred relative to payments, while member retention programs can help carriers avoid the costs of obtaining new members. Our results indicate that the sign-up bonuses necessary to launch these two program types can have differing break-even periods. The results of this study can be beneficial to a large and growing market of providers and consumers. Health and wellness merged into a large industry necessitated by a cultural shift that led to a greater focus on individual health and well-being. Carriers can decrease overall costs through a decrease in claims for wellness visits. These programs may also improve individual health and decrease the need for prescription drugs or costly surgeries. Thus, providers that decrease costs through wellness programs benefit by increasing both the quantity and quality of lives.

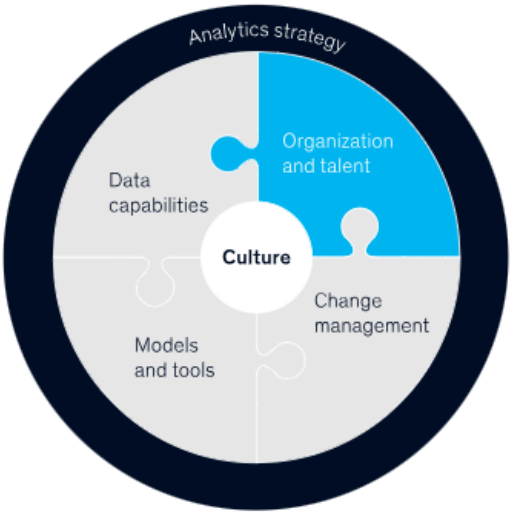

Fig 3: The impact of AI on the future of insurance

5.1. Implications for Health Insurance Providers

These findings shed light on how health insurance providers can leverage these cutting-edge member retention tools in an industry transitioning in part to more personalized, AI-based wellness technologies. Associations between health behavior and deep-tiered discounts—decision supports with larger discounts for preventive behaviors and smaller discounts that could include treatment-based recommendations—suggest that these types of programs could encourage healthier habits and help prevent, or at least detect earlier, more serious health conditions that would be costlier for health insurance providers to cover. This can help decrease the cost of care for time horizons that could be more near-term over which the savings values of using such systems might be expected to materialize. A focus on only treatment-recommending systems could minimize the salience of beneficial savings that providers might present to their own members. Integrating preventive health schools utilizing AI could also shape market significance in favor of the treatment-focused programs of health schools that already exist and utilize AI for convenience optimization.

One key aspect that could drive member receptiveness is the engagement with the AI system, to begin with. Effect sizes from deep-tiered discounts on retention rates suggest an improving likelihood that members would remain enrolled. Members tended to be more patients who were early adopters of the system. Based on this, it could also mean that individuals who are more likely to adopt AI-based peers and provide feedback would already have a more favorable bias for the system. In order to implement these tools successfully, they should be designed in close consultation with what members want and need from these services. Continuous feedback loops built into the service would also be key. Policymakers and regulators will also need to consider whether they are comfortable with these potential implications. How to balance nudging individuals towards certain types of care—and possibly AI-based diagnoses—while still respecting autonomy is an important discussion for the industry, as well as appropriate policy, to consider.

Equ 3: Retention Rate Model

$$R(t) = \beta_1 E(t) + \beta_2 M(t) + \beta_3 D(t)$$

5.2. Future Research Directions

This study informs a number of areas for further research. As AI improves, so too will its effectiveness in targeting members (or drivers, in other lines of insurance). It would be interesting over time to undertake more advanced methods to understand if there is a long-term behavioral shift by targeting the savings; however, this is a complex problem because members change insurers. Looking at a sector with less rotation, such as mortgages, maybe another avenue of inquiry, or leveraging various other data sources to understand who renews and continues to be engaged, or trade studies over time looking at retention and renewals. AI will also continue to evolve wellness programs. Wellness programs could be a source of differentiation, or offering to assist the program for multiple insurers within a network may also be a more exciting site-license style partnership. This research encourages further research into different ways you could or should evolve wellness programs. This paper offers multiple implications for research. This is a unique study of applied AI within health insurance. As such, more research and collaboration with the sector to understand the implications of rolling out AI within the industry is encouraged.

Furthermore, it would be interesting to monitor the interventions of this paper over time because of the concern for ethical issues. As suggested by the

research, this paper also encourages further inquiries across two research directorates: the ethical and the implementation of AI. Analysis of abilities in segmenting and targeting wellness programs to individuals' profitability of customer cohorts is much-needed research. Here, a study across brands to improve the generalizability of the results could be performed. Given that this research used an experimental design rather than an observational cohort design, it would allow and encourage longitudinal studies to explore improvements in the approach to AI-enabled targeting, in turn impacting customer engagement over time. AI offers new opportunities, and the research encourages further research in the AI and ethical space. It is also rich in idea generation for public good and market ethics research. Many more opportunities are likely to present themselves, which, in a short research project, have been overlooked. There are many more implications for AI in insurance than have been discussed in this paper. More collaboration into the drivers of these research areas and the development of these papers is encouraged. Multi-disciplinary and wide-ranging research is encouraged.

6. Conclusion

Throughout this research, we have demonstrated that offering AI-powered health insurance discounts and wellness programs can significantly enhance member engagement and retention. These programs also lead to meaningful improvements in perceived member value. The findings support the proposition that offering health insurance discounts or wellness programs can be a strong option in a value-based care strategy to help achieve tighter integration of the insurer and providers to deliver better patient outcomes. Future research developing and testing AI-powered solutions should continue integrating member feedback to ensure the offerings meet the evolving needs of members in a rapidly changing healthcare and insurance landscape. As technology adoption accelerates, we anticipate member norms and expectations will evolve as well. Health insurance companies should focus on integrating AI solutions that help them identify high- and rising-risk individuals and offer support to help prevent the development or further progression of chronic diseases. This is aligned with the preferences of many members as found in this research, which opens the door to developing and testing additional AI-powered wellness programs that resonate with consumer needs and preferences to extend the value of this research. This study's limitations are primarily related to the generalizability of the research. The research used a convenience sample of individuals in a predominantly employer-group health plan in one metropolitan market. It should also be noted that market dynamics and maturity of health care more broadly may not be the same as that in other countries where market-based care is not as prevalent, where barriers to entry for new health insurance offerings may be more difficult, and/or where publicly funded care may affect health insurance offerings. This research makes significant contributions to theory and practice in three primary areas. Firstly, it is the first known study to empirically investigate the factors that drive member engagement and retention when offered wellness programs and health insurance discounts supported by an AI-powered platform. Secondly, developing a defensible measurement model for member engagement and value is important given the penultimate goal of insurers in implementing such programs is ultimately positive member behavior change tied to improved health and reduced medical costs. This research builds upon the consumer satisfaction and engagement models working to extend the theory in both areas. Finally, this research helps provide practitioners in the health insurance industry with information to more robustly develop their wellness programs using a value-based care approach.

6.1. Future Trends

Given the nascent stage of AI-unlocking insurance products, there are a variety of potential future trends as technology further advances and adds novel solutions to the inventory of insurers. Data analytics, in particular, may become more heavily focused on and increasingly able to stratify and personalize. Other sources of personalized data, such as social media, as applications broaden and deepen, will also likely be tapped into. Not only do these growing applications of data analytics and personalization aid in building a more unique portfolio of risk for every member—a must in solving the gamification problem—they speak to the larger emerging trend of delivering unique,

personalized health experiences with insurance coverage benefits. Data collection and finely graded underwriting will also create a shift in how we purchase policies, from simple price comparison shopping to creating a price bidding or underwriting venue. From buying health insurance, the potential for automated auctions and best-match wins could see the switch to health insurance companies bidding for different bundles of policy add-ons, leveraging more detailed risk scores as measured by our health data.

Telemedicine and direct provider contracting as a response to behavior nudges may well pave the way for blossoming artificial general intelligence programs in the possibility for real-world AI solutions to non-monetary questions: What are the best omics-driven guidelines for me if I'm in a made-up subcategory because I've been on an 18-week keto/paleo diet? As the answers to these questions become more easily pursued in the next years, one-on-one advice and heavily anecdotal direct telemedicine consultations may start to give way to big data studies and algorithm-driven behavior nudges which might engage in the next action level of possible human iterations. Already, insurers are chaining health data tracking technology and telemedicine to their portfolio, offering wearable devices and arranging for 24/7 top-rated telemedicine services that inspire members to interact with them. The growing trend of telemedicine and the increasing omnipresence of devices in people's lives demands agility and integration to meet the potential the future brings.

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