Summer Internship Report

at

ENIRA Consulting

(1 May 2025 to June 30, 2025)

A Report on

Subscription Model in Preventive Health: A Study on Willingness to Pay for NCD Screening Services

By

Dr Kanya Verma

PGDM (Hospital and Health Management)



International Institute of Health Management Research, New Delhi

The certificate is awarded to

Dr Kanya Verma

In recognition of having successfully completed her Summer Internship in the department of

Strategy – Healthcare & Lifesciences

and has successfully completed her Project on

Subscription Model in Preventive Health: A Study on Willingness to Pay for NCD Screening Services

30 JUNE 2023

ENIRA Consulting

She comes across as a committed, sincere & diligent person who has a strong drive & zeal for learning

We wish him/her all the best for future endeavors

Organization Supervisor

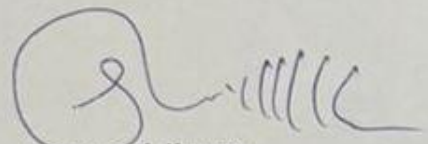
Dr Sabine Kapasi, MD

Department Head

Dr Ashish Panghal

Certificate of Approval

The Summer Internship Project of titled **"Subscription Model in Preventive Health: A Study on Willingness to Pay for NCD Screening Services"** at **ENIRA CONSULTING** is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of Post Graduate Diploma in Health and Hospital Management for which it has been submitted. It is understood that by this approval, the undersigned do not necessarily endorse or approve any statement made, opinion expressed, or conclusion drawn therein but approve the report only for the purpose it is submitted.



Dr. Sumesh Kumar

Associate Professor & Associate Dean (Academics and Student Affairs)

IIHMR, Delhi

FEEDBACK FORM

(Organization Supervisor)

Name of the Student: Dr Kanya Verma

Summer Internship Institution: ENIRA Consulting

Area of Summer Internship: Strategy – Healthcare & Lifesciences

Attendance: More than 90%.

Objectives met: Yes, as per expectation

Deliverables: (1) Market Research
(2) Proposal Writing
(3) Stakeholder Management

Strengths: (1) Communication & Coordination
(2) Writing

Suggestions for Improvement: Could have explored thoughts in more detailed way. Think out of the box.

Signature of the Officer-in-Charge

Enira Consulting Pvt. Ltd.

Date: 30/06/2025

Place: New Delhi.

SUMMER INTERNSHIP REPORT

(Observational Learning)

Submitted to: Dr Sumesh Kumar
Submitted by: Kanya Verma

Introduction

This report provides a comprehensive overview of my internship experience at Enira Consulting Pvt. Ltd., where I worked as an Associate Intern in the Strategy and Advisory division. The Summer internship was undertaken as part of the academic requirement of my MBA in Health Management program. The report highlights my learning journey, contributions, and insights into the strategic consulting domain within the healthcare sector.

Objectives of the Internship

1. To gain practical exposure in healthcare strategy consulting.
2. To understand how consulting frameworks are applied in real-world scenarios.
3. To assist in client engagements and contribute to strategic problem-solving.
4. To develop analytical, communication, and presentation skills through hands-on experience.
5. To bridge the gap between theoretical knowledge and industry practice.

Organization Profile – Enira Consulting Pvt. Ltd.

Enira Consulting is a boutique management consulting firm specializing in strategy and advisory services, primarily in the healthcare and life sciences domain. The firm partners with healthcare providers, investors, and ecosystem players to solve complex challenges related to growth, expansion, operations, and transformation. With a client-centric approach, Enira Consulting focuses on delivering high-impact solutions backed by rigorous data analysis, deep sectoral knowledge, and pragmatic execution roadmaps.

Key areas of focus:

- Healthcare strategy & market entry
- Business model transformation
- Due diligence and feasibility studies

- Operational excellence
- Digital health and innovation strategy

Services Provided by Enira Consulting - During the internship, I was able to observe and contribute to various consulting services offered by Enira, which include:

1. Strategic Growth Advisory: Designing strategic roadmaps, go-to-market strategies, and business scale-up models for healthcare clients across India and the Middle East
2. Feasibility and Business Planning: Supporting clients with market assessments, competitor analysis, and financial modeling for new hospital or clinic setups.
3. Mergers & Acquisitions Support: Participating in commercial due diligence and business plan validation.
4. Digital Health Enablement: Assessing digital solutions and advising clients on digital strategy and innovation.
5. Healthcare Operations Transformation: Identifying inefficiencies and recommending process improvements to enhance patient experience and reduce operational costs.

Projects Undertaken at Enira

During my summer internship at Enira Consulting Pvt. Ltd., I had the opportunity to work on diverse projects spanning strategy, fundraising, diagnostics, and healthcare innovation. The following are some of the key projects I contributed to:

1. Investment Trends in the Indian Healthcare Market (2022–2025)
Conducted a comprehensive analysis of investment activity across India's healthcare sector, segmented by quarter from 2022 to 2025.

Project Highlights:

- Compiled and analyzed data on private equity (PE), venture capital (VC), and M&A deals across hospitals, diagnostics, digital health, and life sciences.
- Identified deal volumes, values, and notable investor trends to track market evolution.
- Generated strategic insights on shifting investor preferences and emerging sub-sectors.
- Supported visual reporting using quarterly dashboards and deal timelines.

2. GCC Investor Market Research – Lifeline Healthcare Group Expansion
Contributed to market research and strategic planning for Lifeline Healthcare Group, a UAE-based clinic chain, exploring expansion opportunities in the US and broader GCC region.

Key Focus Areas:

- Mapped healthcare investor landscape across GCC countries (KSA, UAE, Qatar, Oman, etc.).
- Assessed market entry barriers, funding trends, and valuation benchmarks.

- Provided comparative insights on regulatory environments and target investment models in the US and GCC.

3. Landscaping Report on Preclinical and Clinical Research Market
Prepared a detailed market landscaping report on India's preclinical and clinical research ecosystem.

Scope of Work:

- Mapped CROs, academic institutions, and biotech hubs with capabilities in animal and human trials.
- Analyzed regulatory pathways, capacity constraints, and regional strengths.
- Identified collaboration and funding opportunities for companies entering the Indian R&D space.

4. Strategic Support for Clinical Trial Market Entry in India
Supported global healthtech and medtech clients looking to enter or scale clinical trial operations in India.

Responsibilities Included:

- Conducted feasibility assessments, investigator network mapping, and cost comparisons.
- Provided regulatory guidance and timelines for DCGI approvals.
- Created briefing documents and pitch notes for prospective partners and trial sites.

5. Centre of Excellence (CoE) Proposal – IIT Bombay
Led the development of a proposal for establishing a Centre of Excellence in collaboration with IIT Bombay for a strategic client.

Project Achievements:

- Conducted deep research to identify priority domains (AI in healthcare, biosensors, medtech innovation).
- Created proposal drafts, strategic decks, and presented to the client in multiple review rounds.
- Aligned deliverables with academic, innovation, and translational research goals.

6. Hospital Chain Outreach and Investment Targeting
Identified and profiled localized hospital chains in Tier-2 and Tier-3 cities for a client seeking to invest in India's healthcare delivery segment.

Activities Involved:

- Mapped small and mid-sized hospitals with growth potential and operational stability.
- Conducted preliminary outreach to hospital management teams to assess interest and readiness.
- Shared actionable intelligence with the client to support deal pipeline generation.

7. **Antimicrobial Resistance (AMR) in India: Economic Impact, Surveillance, and Policy Landscape (2023–2025)**

Conducted a structured assessment of India's antimicrobial resistance (AMR) burden with a focus on public health, economic cost, pathogen resistance patterns, and state-level and regulatory responses from 2023 to 2025.

Project Highlights:

• Analyzed the **economic burden of AMR** in India, including healthcare costs, productivity loss, and projected GDP impact using national and global models (World Bank, ICMR, FICCI).
• Mapped **pathogen-antibiotic resistance matrices** across ICU and community settings using surveillance data from ICMR-AMRSN and tertiary hospitals.
• Reviewed **state-level action plans**, including Kerala's KARSAP and Delhi's SAP-CARD, to assess implementation of AMR control strategies under the One Health framework.
• Evaluated **regulatory responses** from CDSCO and FSSAI, including colistin bans in livestock and guidelines on antibiotic residues in food products.
• Developed **infographic dashboards** summarizing AMR trends, high-risk organisms, economic losses, and national vs. state mitigation efforts.
• Generated **policy insights and recommendations** for strengthening AMR governance, surveillance capacity, and multisectoral coordination in India

Abstract

Title: Subscription Model in Preventive Health: A Study on Willingness to Pay for NCD Screening Services

Background:
India faces a rising burden of non-communicable diseases (NCDs) such as diabetes, hypertension, and cardiovascular conditions, which now account for over 60% of deaths nationally. Despite government efforts through programs like NPCDCS and NHM, gaps persist in early diagnosis and preventive care, especially in urban settings. Subscription-based screening models offer a promising, proactive approach to affordable and regular preventive care, but their acceptability and affordability remain underexplored.

Objective:
To assess the willingness to pay (WTP) for subscription-based NCD screening services among urban households in Delhi NCR and analyze factors influencing adoption, including demographics, income, insurance status, and payment preferences.

Methods:
A descriptive, cross-sectional study was conducted using a structured online questionnaire. A hybrid sampling strategy (convenience-random and snowball sampling) yielded 189 validated responses. Data were analyzed using SPSS and chi-square tests to identify significant associations.

Results:

- 59% of respondents expressed willingness to pay for subscription-based NCD screening services.
- The preferred monthly price was ₹251–₹500, with quarterly payments being the most favored.
- Insurance status significantly influenced WTP ($p = 0.001$), with private and employer-insured individuals showing higher acceptance.
- Income level, however, was not a significant predictor ($p = 0.465$).
- High willingness was also observed among younger, working-age groups (25–45 years), and digitally literate populations.

Conclusion:
The study demonstrates strong potential for the adoption of subscription-based preventive care models in urban India. With a statistically significant inclination toward such services, particularly among insured and health-aware groups, there is a clear opportunity for policymakers and health providers to scale up affordable, flexible screening models. Aligning pricing with perceived value, integrating with public schemes, and increasing awareness among uninsured populations will be key to long-term success.

TITLE: Subscription Model in Preventive Health: A Study on Willingness to Pay for NCD Screening Services

INTRODUCTION AND BACKGROUND

Non-communicable diseases (NCDs) are a group of diseases that includes chronic respiratory diseases (asthma, COPD), cancerous growth, diabetes, and cardiovascular diseases (that includes strokes and heart attacks). NCDs carry a much higher death rate in low-income and middle-income countries, making NCDs a significant obstacle to reducing country's health inequities, both in developing and developed countries. Lately in India people are rapidly developing these conditions a deccennary earlier which shows an alarming alert in Indian population for the increasing burden of NCDs

Similar to many other nations, India is undergoing a significant epidemiological shift characterized by a significant rise in the prevalence of noncommunicable diseases. Rapid urbanization, dietary habits, sedentary lifestyles, and population aging are some of the factors driving this transition. For the purpose of creating efficient prevention and control plans that are suited to India's particular situation, it is essential to comprehend the mitigation of risk factors linked to NCDs.
India in accounting 62 % **[1]** of death from NCDs , India is struggling to tackle the rising burden of NCDs due to epidemiological and demographic transitions. In such settings, the importance of primary health level care for NCDs cannot be overemphasized.**[2],** In India, a majority (64%) of healthcare payments is through out-of-pocket expenditure , The prevalence is on the rise among the poor, making them particularly vulnerable to catastrophic health expenditure, in addition to life-long morbidity and increased mortality**[3]**. All though In 2008, the Indian government introduced the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases & Stroke (NPCDCS), a nationwide NCD initiative.
In 2013, the National Health Mission (NHM) sought to further facilitate collaborations with the private sector while incorporating NCD-related program activities pertaining to health promotion, level of preventiona nd public private partnerships.

Despite government efforts, there is still no effective model that shows how to integrate NCD-related services. The approach used in the national NCD program was better suited for rural health systems than urban ones until recently in 2017. Recently, the program has recognized the importance of screening at the population level and building the skills of primary care teams and frontline health workers as essential first steps toward integrating services for NCD care.

The noticeable gaps in access to early diagnoses, there's a pressing need to embrace inclusive and sustainable healthcare delivery models that move beyond the traditional approach. One of the exciting approach is the subscription-based screening program model. These programs provide individuals with affordable, scheduled access to preventive health services, allowing for early detection and timely management of chronic conditions like diabetes, hypertension, and cardiovascular diseases. By operating on a recurring, low-cost basis, subscription models can improve adherence to regular screenings, especially for those who might otherwise postpone or skip medical checkups due to financial constraints, distance, or lack of awareness. These initiatives have the potential to shift preventive healthcare from a reactive, episodic approach to a proactive, continuous one.

However, for these models to be effectively crafted and widely embraced, it's crucial to gather some insights into population-level behaviors and preferences, including: Understanding what individuals from various income levels and communities are ready to invest in regular screenings. This ensures that the pricing structure remains affordable while also being financially sustainable for providers, Evaluating

How people perceive the benefits and significance of preventive screenings can greatly impact their participation. Understanding how different groups value these services—especially across socio-economic lines and demographics divide and will help shape communication strategies and tailor services accordingly.

Enira Consulting is helping the project by offering design advice, connections, and support to improve its mission of creating health solutions based on data for specific populations.

This project aims to evaluate the demand and individual acceptance of subscription-based non-communicable disease (NCD) screening services in the urban Indian healthcare market, particularly focusing on households in the Delhi NCR region. The primary goal is to assess the willingness to pay (WTP) for routine preventive screenings. It also seeks to understand how pricing affects adoption across different income levels, age groups, and individuals with a history of NCDs.

By examining the current burden of NCDs and studying health-seeking behavior in urban populations, the research aims to identify gaps in adopting value-based care. It will uncover behavioral, financial, and perceptual barriers to using preventive services. Additionally, the project will explore consumer expectations and price sensitivity to shape inclusive, sustainable, and user-friendly subscription models.

We can implement the recommendations effectively, propose using the framework: Engage, Need Identification, Integration, Resource Alignment, and Awareness.

Engage stakeholders such as employers, insurers, and clinics to co-design subscription models. Identify target groups like the uninsured, high-income individuals, and working adults. Customize payment plans for these groups. Integrate digital tools and public schemes like Ayushman Bharat for scale. Align resources, including labs, workforce, and funding. Launch awareness campaigns across community and digital platforms. This approach will help maintain adoption and encourage preventive care behavior.

The findings will provide a foundation for creating healthcare solutions that meet consumer needs. This project aspires to improve access to preventive healthcare, reduce the long-term burden of chronic illnesses, and support the development of community-sensitive, scalable delivery models. Ultimately, it hopes to foster a more proactive, affordable, and sustainable approach to NCD management. This will enable policy-makers, healthcare providers, and investors to make informed choices that connect innovation with public health impact.

RESEARCH QUESTION

To what extent are subscription-based NCD screening services acceptable and adoptable among urban households in Delhi NCR, considering their willingness to pay and health-seeking behavior across diverse demographic segments?

OBJECTIVES

1. To assess the adoption potential of a willingness-to-pay (WTP) model for routine NCD screening among targeted urban populations

2. To understand how different health insurance scheme people enrolled with opt for such preventive services

3. To understand how household income influences for the adoption of the screening and payment model for the subscription based routine NCD screening services

HYPOTHESIS

Ho – There is no significant preference among individuals to enroll in subscription based NCD screening service and the responses (Yes, No and Maybe) Are uniformly distributed.
HA- There is a significant preference among individuals to enroll in subscription based NCD screening service and the responses (Yes, No and Maybe) Are not uniformly distributed, suggesting a trend in acceptance of the model.

REVIEW OF LITREATURE

Studies show that rural populations in India often seek care only after they notice symptoms. Many have limited awareness of preventive services, though some are willing to pay for community health insurance (Jain A, et al.). In Taiwan, age, education, and social support affect health screening participation. However, the reasons why some do not participate are unclear (Chien et al). In Nigeria, awareness and willingness to pay for community-based health financing were low. The studies did not look at cultural or socioeconomic factors (Abubakar et al.). Likewise, in Bangladesh, 83% of rural residents were open to screenings for non-communicable diseases, but acceptance varied by type, and the actual behavior of uptake was not assessed (Sabin et al.). In Tamil Nadu, awareness of insurance grew after COVID, but understanding of benefits and processes remained limited (Issac C, Vel DR). Despite these insights, gaps remain in understanding how trust, education, gender, and misinformation influence long-term preventive care behavior. Additionally, few studies examine how these models can scale or integrate into formal systems, especially in urban areas of India. This study aims to fill these gaps by looking at interest, affordability, and payment behavior regarding NCD screening subscriptions in an urban context.

METHODOLGY

Study Design:

Descriptive, cross-sectional survey that used an online, self-administered questionnaire to assess the willingness to pay (WTP) for subscription-based Non-Communicable Disease (NCD) screening services.

Study Population:

The target population included adults aged 18 years and older, living in urban areas of Delhi-NCR. This group represented various income levels, job types, and demographic backgrounds.

Sampling Method:

A mixed sampling strategy was employed, using both convenience-random sampling and snowball sampling methods:

From an existing contact database from previous ENIRA health awareness campaigns, every 5th eligible contact was randomly selected to introduce some randomness to the convenience sample.

Snowball sampling began by encouraging these initial participants to share the questionnaire within their digital networks. This approach helped to reach about 56 additional participants naturally.

Sample Size:
From the 270 initial responses collected:
Responses were checked for completeness, duplicates, and consistency.
189 validated responses were selected for analysis.

Data Collection Tool:
A structured Google Form included 13 closed-ended questions, organized into the following sections:
- Demographics
- Health status and behavior
- Insurance coverage
- WTP model

Inclusion Criteria:
- Adults aged 18 years and older
- Residents of Delhi-NCR
- Individuals with basic digital skills

Exclusion Criteria:
- Individuals working in healthcare or insurance
- Incomplete responses or missing informed consent

Data Collection Duration:
The survey ran for 3 to 4 weeks, from May to June 2025.

Dissemination Strategy:
Survey links were shared via WhatsApp and email, targeting a chosen list of 250 eligible individuals.

The initial list came from previous outreach by the ENIRA research team in Delhi-NCR.

Ethical Considerations:
Participation was voluntary and anonymous.
Informed digital consent was collected before starting the questionnaire.
No personal identifiers were gathered, and data confidentiality was ensured throughout the process.

Proposed NCD Model Screening Package

Price Bracket (Monthly)	Plan Name	Quarterly Price	Services Included
₹50 – ₹100	Basic Plan	₹120 (₹40/month)	- BP & Blood Sugar (2x/quarter) - 1 Teleconsultation - Digital Diet Chart
₹101 – ₹250	Standard Plan	₹330 (₹110/month)	- All Basic Tests - Hemoglobin (CBC), TSH - 2 Teleconsultations - App Access & Support
₹251 – ₹500	Advanced Plan	₹660 (₹220/month)	- All Standard Tests - ECG, LFT, Creatinine - Eye & Dental Check - 3 Consults incl. Mental Health
₹501 – ₹1000	Premium Plan	₹1200 (₹400/month)	- All Advanced Tests - Cancer Screening (PAP/PSA) - Genetic Counseling - 4 Teleconsultations - Dedicated Mental Health Support

DATA COMPILATION AND ANALYSIS

• Data was collected using Google Forms and organized in Google Sheets, then exported to Microsoft Excel for cleaning and analysis.
• The dataset mainly included categorical variables like demographics, insurance status, health-seeking behavior, and willingness to pay.
• Graphs, pie charts, and cross-tabulations summarized the data and explored response patterns.
• Pearson's Chi-Square Test was used to check if variables are independent or related.
• A goodness of fit test was conducted to see if the distribution of a single categorical variable matched an expected distribution.
• For statistical testing, SPSS was used.

Data Interpretation:

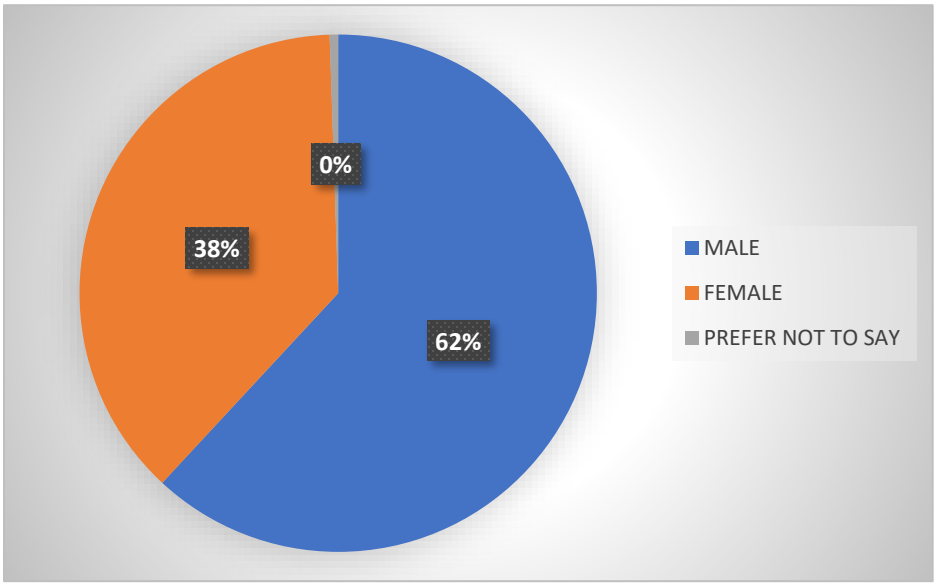


Table 1Gender Distribution

Males accounted for most of the respondents at 62%, while females made up 38%. None of the respondents chose "Prefer not to say."

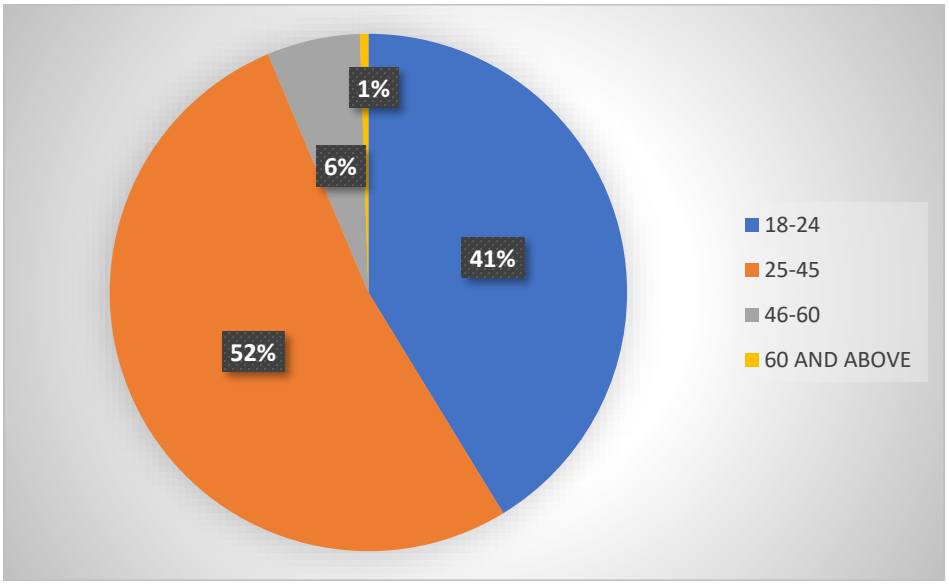


Table 2 Age Groups

The age group of 25 to 45 years made up most of the respondents, at 52%. Next was the 18 to 24 years category, which represented 41%. A smaller portion belonged to the 46 to 60 years group, at 6%, and only 1% were 60 years or older. This indicates that a younger, working-age group dominated the sample.

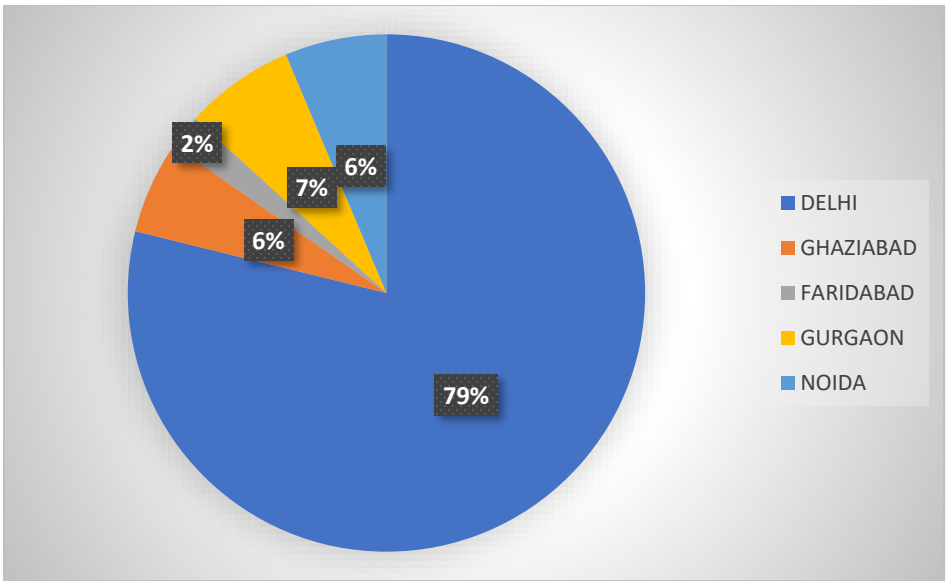


Table 3Residence

Most participants, 79%, were residents of Delhi. Smaller groups came from Ghaziabad, 7%, Noida, 6%, Faridabad, 6%, and Gurgaon, 2%. This shows that the sample was mainly urban and focused on Delhi.

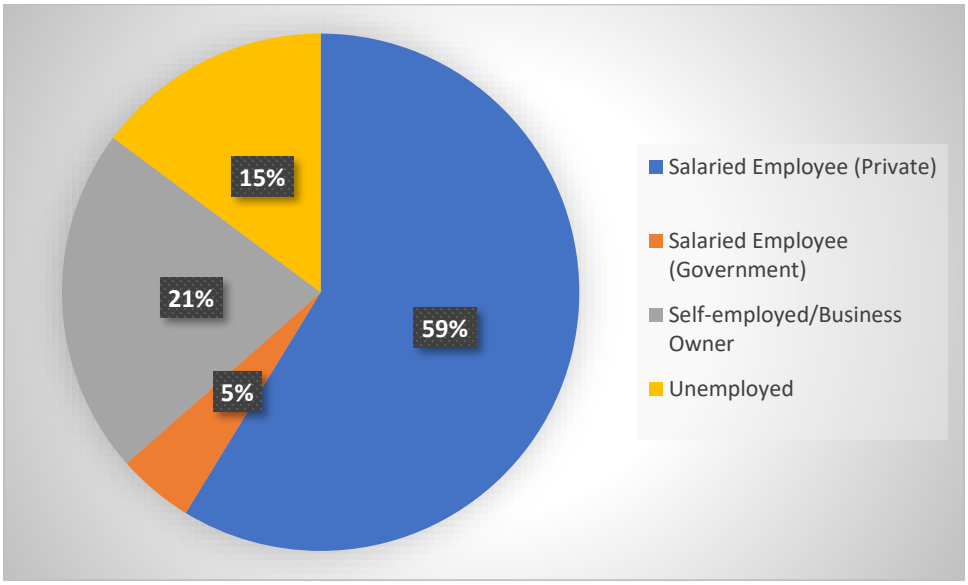


Table 4 Occupation Type

The majority of respondents (55%) are salaried employees in the private sector, followed by 20% who are self-employed. Unemployed individuals make up 14%, while only 4% work in the government sector.

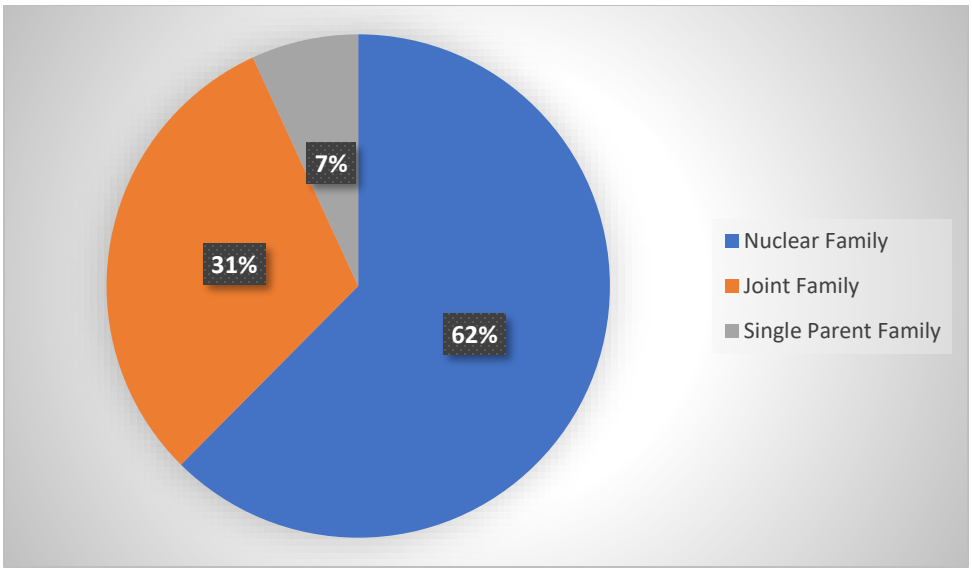


Table 5 Family Structure

The majority of respondents, 62%, lived in nuclear families. This was followed by 31% who lived in joint families. Only 7% came from single-parent households. This shows that the main family structures were nuclear or joint.

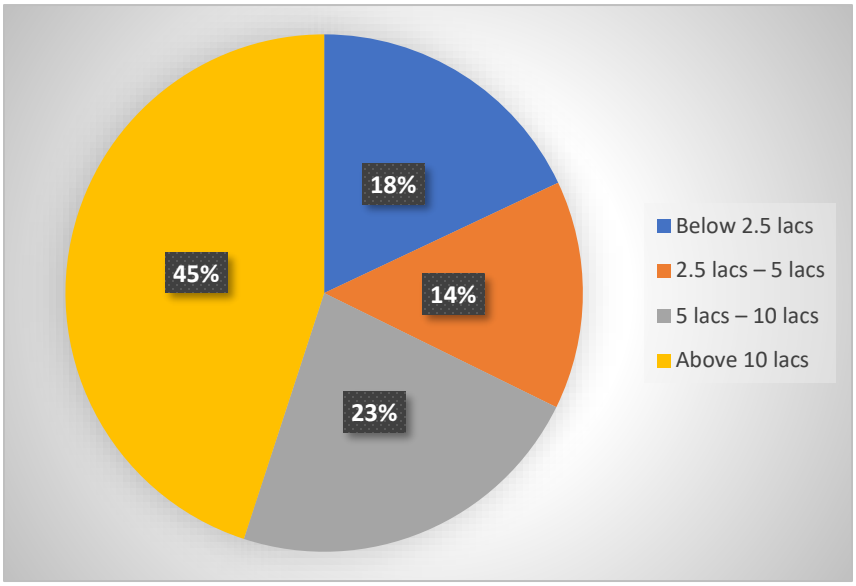


Table 6 Income per household

The largest income group among respondents was “Above ₹10 lacs” at 45%. Next was the ₹5 to ₹10 lacs range, which made up 23%. Those earning below ₹2.5 lacs accounted for 18%, while 14% fell into the ₹2.5 to ₹5 lacs category. This uneven distribution indicates a higher-income demographic among

respondents.

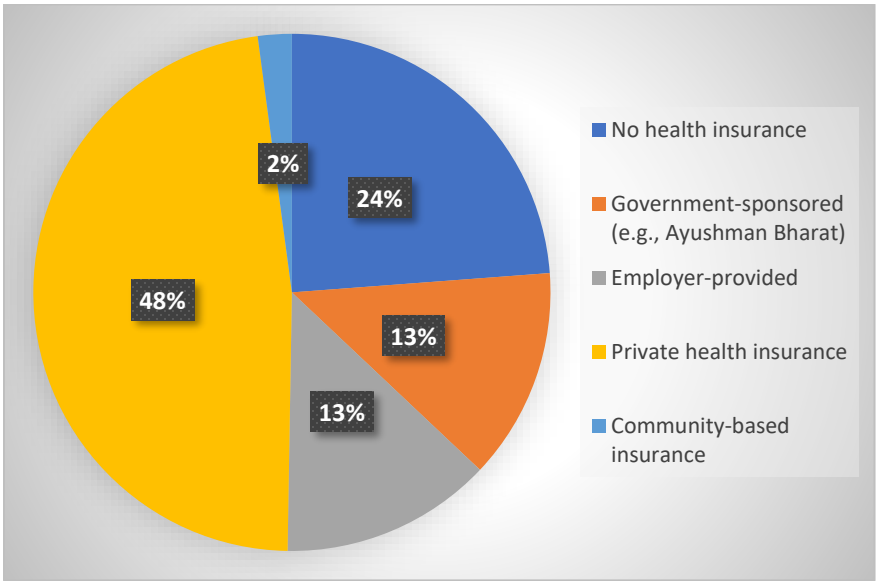


Table 7 Insurance Coverage

Nearly half (48%) of respondents did not have health insurance. Among those who were insured, 24% had government-sponsored plans, such as Ayushman Bharat. Thirteen percent each had employer-provided and private insurance. Only 2% reported having community-based insurance.
This shows a significant gap in insurance coverage.

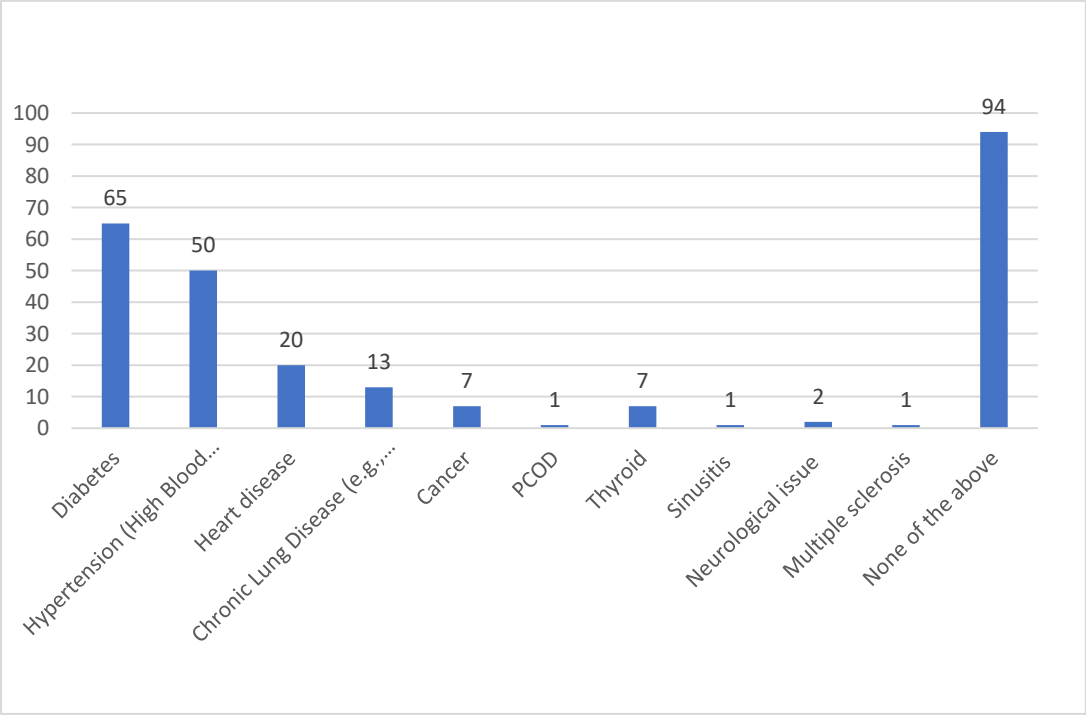


Table 8 NCD history

The bar chart shows that diabetes (65) and hypertension (50) were the most commonly reported health conditions among respondents. Other NCDs, such as heart disease (20), chronic lung disease (13), and cancer (7), were less common. A significant number of respondents, 94, reported having none of the listed conditions. This suggests a relatively healthy population or possibly underdiagnosis.

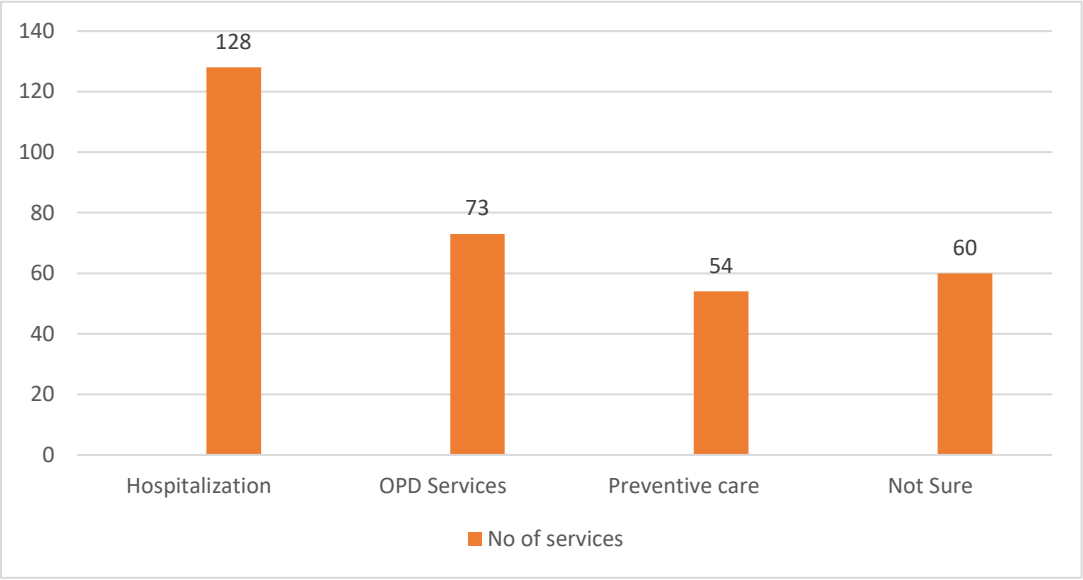


Table 9 Service Coverage in Insurance

The bar chart shows that hospitalization services were the most used, with 128 responses. OPD services followed with 73, and preventive care had 54. Interestingly, 60 respondents were unsure about the services they used. This indicates possible gaps in health awareness. The data suggests a greater dependence on curative services instead of preventive care. This highlights the need to promote regular health screenings.

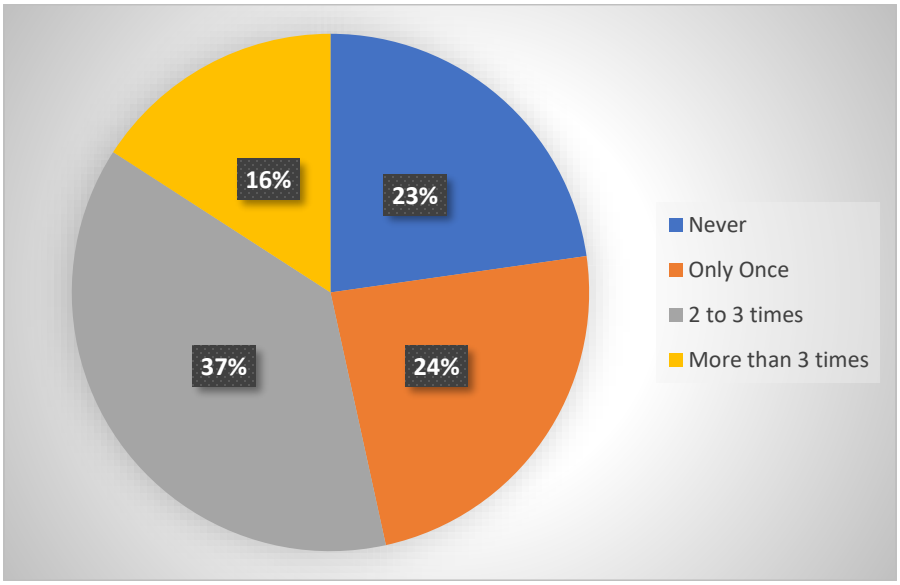


Table 10 Checkup Frequency

37 percent had checks two to three times a year. 24 percent only had one check-up each year. 23 percent never went for check-ups. About 16 had check-ups more than three times a year. This shows moderate involvement with preventive care.

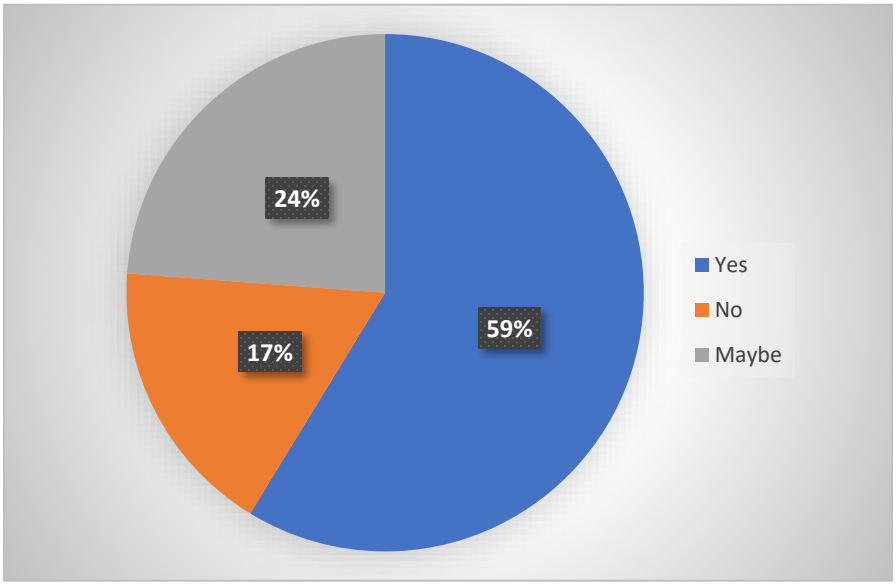


Table 11 WTP

A majority of respondents, 59%, said they are willing to pay for subscription-based screening services for non-communicable diseases (NCD). Meanwhile, 24% were unsure, and 17% clearly stated they would not pay. This shows that most people have a positive attitude toward investing in preventive healthcare.

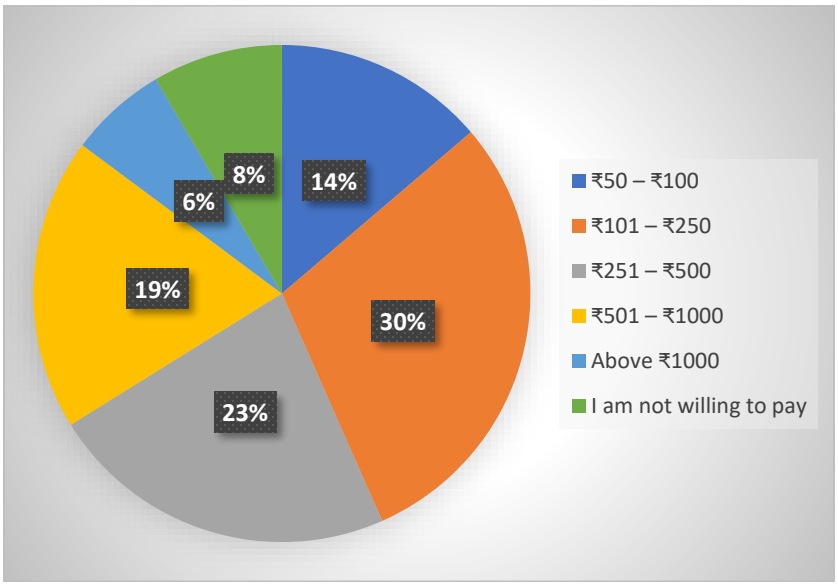


Table 12Monthly budget for subscription

The preferred pricing for a monthly screening package varied. The largest group, 30%, was comfortable with a cost of ₹251 to ₹500. Following this, 23% preferred the ₹101 to ₹250 range. Interestingly, 14%

were open to paying ₹501 to ₹1,000. Additionally, 6% even considered paying more than ₹1,000. A small percentage, 3%, chose ₹50 to ₹100, while 19% were not willing to pay anything. This shows that most participants are willing to invest moderately in health monitoring.

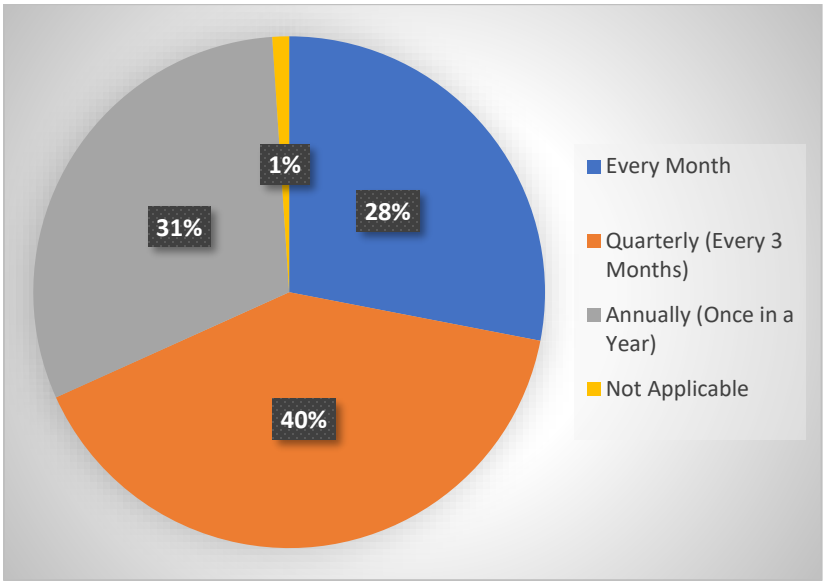


Table 13 Payment Frequency

Most respondents, 40%, preferred to pay quarterly. This was followed by 31% who chose annual payments. Only 28% preferred monthly payments. This suggests a stronger tendency for less frequent, lump-sum payment plans. A small 1% marked "Not Applicable."

Type of Health Insurance	Maybe	Yes	No	TOTAL
Community-based insurance	1	1	2	4
Employer-provided	10	15	0	25
Government-sponsored (e.g., Ayushman Bharat, ESI)	5	18	2	25
No health insurance	10	18	17	45
Private health insurance	19	59	12	90
TOTAL	45	33	111	189

Table 1 Type of Health Insurance and willingness to pay for NCD screening

Respondents with private insurance (59) and employer-provided insurance (15) show a strong willingness to pay for NCD screening. In contrast, those without insurance are divided, with 17 saying "No" and 18 saying "Yes." Community-based insurance holders seem least interested, possibly due to a lack of awareness or trust. Government-sponsored schemes also demonstrate positive interest, with 18 out of 25 showing willingness. This indicates that the type of insurance affects willingness, with formal insurance holders more ready to invest in preventive care.

(INCOME ANNUAL)	Maybe	No	Yes	Grand Total
2.5 lacs – 5 lacs	3	4	20	27
5 lacs – 10 lacs	12	5	26	43
Above 10 lacs	21	16	48	85
Below 2.5 lacs	9	8	17	34
Grand Total	45	33	111	189

Table 2 Annual income and willingness to pay

Willingness to pay usually goes up with income. The highest number of "Yes" responses comes from the group earning over ₹10 lakh, with 48 affirmatives. However, even the lower-income groups earning between ₹2.5 lakh and ₹5 lakh show strong interest, with 20 out of 27 expressing willingness. In the group earning less than ₹2.5 lakh, “Maybe” and “No” responses are more common, showing financial uncertainty. Interestingly, middle-income groups also display a good level of support. Overall, income plays a significant role, but it is not the only factor affecting willingness.

Amount per month	Yes	No	Maybe	Grand Total
₹101 – ₹250	35	6	15	56
₹251 – ₹500	30	4	9	43
₹50 – ₹100	12	4	10	26
₹501 – ₹1000	27	3	6	36
Above ₹1000	5	6	1	12
I am not willing to pay	2	10	4	16
Grand Total	111	33	45	189

Table 3 Amount monthly can pay for subscription based NCD Screening

Most respondents are willing to pay between ₹101 and ₹500, with 65 selecting "Yes" in that range. Higher price points, from ₹501 to ₹1000, also receive some acceptance, with 27 saying "Yes." This shows there is potential for premium packages. Very few respondents want to pay more than
₹1000. The highest number of "No" responses comes from the non-paying group, which has 10 out of 16. This suggests that pricing models should focus on the ₹101 to ₹500 range, balancing affordability with value.

Variable	P Value	Significance
WTP for subscription based NCD screening Model	**P < 0.05 P= (0.00000000000069144)**	**Highly Significant Reject Null Hypothesis**
Type of Health Insurance and willingness to pay for NCD screening	**P < 0.05 p = 0.001**	**Highly Significant Reject Null Hypothesis**
Annual income and willingness to pay	**P > 0.05 p = 0.465**	**Fail to Reject Null**
Amount monthly can pay for subscription based NCD Screening	**P < 0.05 p = 0.001**	**Highly Significant Reject Null Hypothesis**

Table 4 Chi-square test results showing the significance of factors influencing willingness to pay for subscription-based NCD screening services.

The study looked at different factors that influence the willingness to pay (WTP) for a subscription-based Non-Communicable Disease (NCD) screening model using Chi-square tests.

There is a strong association between respondents' overall willingness to pay for the subscription-based NCD screening model, with a p-value of 6.9144E-13 ($p < 0.05$). This shows a clear interest, and the null hypothesis is rejected.

The relationship between the type of health insurance and willingness to pay is also significant ($p = 0.001$). This indicates that insurance status affects payment decisions, so the null hypothesis is rejected.

On the other hand, the link between annual income and willingness to pay was not statistically significant ($p = 0.465$, $p > 0.05$). This suggests that income level did not meaningfully impact the decision to pay for the subscription, and the null hypothesis remains accepted.

Lastly, there is a strong association between the amount respondents are willing to pay monthly and their acceptance of the subscription model ($p = 0.001$). This implies a clear connection between monthly affordability and WTP, leading to the rejection of the null hypothesis again.

RECOMMENDATION

1. Leverage High Willingness to Pay as Market Readiness Signal

With 59% of respondents willing to pay and most preferring moderate pricing (₹251–₹500), this shows strong consumer readiness. The data supports the immediate piloting of subscription-based NCD screening services in urban areas, starting with Delhi NCR.

2. Capitalize on Positive Response Trends Validated by Statistical Testing

The Chi-Square Goodness-of-Fit test showed a significant preference for the subscription model. This clear lean toward acceptance highlights public receptiveness and builds confidence for stakeholder investment and policy support.

3. Target Demographics with High Conversion Potential

Private and employer-insured groups displayed the most willingness to enroll. These segments should be prioritized during the initial launch to maximize adoption and create early success stories for further growth.

4. Promote Flexible Payment Models to Encourage Onboarding

Since 40% of respondents preferred quarterly payments, offering flexible plans (monthly/quarterly/annual) can lessen perceived financial pressure and motivate first-time users to try the service.

6. Address the Insurance Awareness Gap to Broaden Appeal

With 48% of respondents uninsured and 60% unsure about their policy benefits, targeted information campaigns can enhance insurance literacy and present the subscription service as a helpful option for those without traditional coverage.

7. Frame NCD Screening as a Lifestyle Investment

Many respondents, especially in the ₹5–10 lakh and ₹10+ lakh income groups, were open to moderate or even premium pricing. Marketing the service as a smart health investment rather than just an expense can attract urban middle and upper-class consumers aiming for proactive well-being.

8. Use Subscription Models to Strengthen Preventive Care Culture

Since 37% of people already engage in 2–3 checkups each year, there is an existing base of health-seeking behavior. The subscription can change this behavior into a regular preventive habit, aligning with national NCD control goals.

CONCLUSION

This study offers valuable insights into the viability and acceptance of a subscription model for screening and managing non-communicable diseases (NCDs) among urban populations. The profile of respondents, which primarily includes young adults aged 25 to 45, mostly male, and based in Delhi, reflects a digitally savvy group that is open to preventive healthcare solutions.

Despite being a relatively affluent sample, with 45% earning over ₹10 lakhs annually, nearly half of the participants reported having no active health insurance coverage. This shows a significant gap in formal health protection and highlights the need for accessible, out-of-pocket preventive models that function independently from insurance systems.

From a behavioral perspective, while chronic conditions like diabetes and hypertension were noted, a large number of participants indicated having no known NCDs. Moreover, 23% had not undergone any health check-up in the past year. This suggests potential underdiagnosis or low participation in routine preventive care services.

Notably, 59% of respondents were willing to pay (WTP) for a structured NCD screening service, particularly in the ₹251 to ₹500 monthly range, with a preference for quarterly payment cycles. This shows a clear demand for affordable and flexible pricing that fits household budgeting patterns.

A highly significant connection was found between type of health insurance and WTP ($p = 0.001$), indicating that those with private or employer-sponsored insurance were more willing to invest in preventive services. In contrast, annual income did not significantly affect WTP ($p = 0.465$), suggesting that income alone is not a reliable predictor of preventive health behavior. Additionally, the amount respondents were willing to pay monthly was strongly connected to WTP ($p = 0.001$), highlighting the importance of perceived affordability. The overall distribution of responses toward subscription interest was also statistically significant ($\chi^2 = 56$, $p < 0.05$), reinforcing the model's appeal across the surveyed population.

These results collectively indicate a strong potential for implementing subscription-based NCD screening programs in urban areas. While willingness and awareness levels are promising, success will depend on designing inclusive, economically viable models, especially for uninsured and lower-income groups.

To ensure equitable access and long-term engagement, policymakers and healthcare providers should focus on affordable pricing strategies, flexible payment plans, and targeted awareness campaigns. Incorporating these models into broader public health strategies can help normalize preventive screening as a central aspect of routine healthcare behavior in urban India.

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CONSENT FORM

TITLE: Subscription Model in Preventive Health: A Study on Willingness to Pay for NCD Screening Services

Researcher: Dr Kanya Verma | **Institution:** Enira Consulting | **Contact:** 7292067740

STUDY PURPOSE

We are researching consumer preferences for subscription-based non-communicable disease (NCD) screening services in Delhi NCR to help develop accessible preventive healthcare options.

Complete a 2-minute questionnaire about your demographics, health background, and willingness to pay for NCD screening services.

ELIGIBILITY

You must be 18+ years old and reside in Delhi NCR (Delhi, Noida, Gurgaon, Ghaziabad, or Faridabad).

CONFIDENTIALITY

- All responses are strictly confidential and anonymous
- Data is securely stored with limited access to research team only
- No personal identifiers will appear in research reports
- Only aggregate findings will be published

YOUR RIGHTS

- **Participation is completely voluntary**
- You can withdraw anytime without consequences
- You can skip any questions you prefer not to answer
- No compensation is provided

DATA USE

Information will be used for academic research, publications, and healthcare policy recommendations. Results may be published in journals and presented at conferences using only anonymous, aggregate data

CONSENT

By proceeding with this survey, you confirm that you:

- ☐ Have read and understood this information
- ☐ Are 18 years or older
- ☐ Reside in Delhi NCR
- ☐ Understand participation is voluntary and you can withdraw anytime
- ☐ Understand your responses will be kept confidential
- ☐ **CONSENT TO PARTICIPATE** in this research study

Select one: ☐ YES, I consent to participate ☐ NO, I do not wish to participate

Date: _____ Participant Name (optional): _____

QUESTIONNAIRE

Purpose:
This survey aims to understand people's preferences, health-seeking behavior, and willingness to pay for regular non-communicable disease (NCD) check-ups through a subscription model.

Email:
Required

Name:
(Optional)

1. **Gender** *(Select one)*

- Male
- Female
- Prefer not to say

2. **Age (in years)** *(Select one)*

- 18–24
- 25–45
- 46–60
- 60 and above

3. **Residence** *(Select one)*

- Delhi
- Noida
- Gurgaon
- Ghaziabad
- Faridabad

4. **Occupation** *(Select one)*

- Salaried Employee (Private)
- Salaried Employee (Government)
- Self-employed/Business Owner
- Unemployed

5. **Type of Family** *(Select one)*

- Nuclear Family
- Joint Family
- Single Parent Family

6. **Total Annual Household Income (in INR)** *(Select one)*

- Below ₹2.5 lakhs
- ₹2.5 lakhs – ₹5 lakhs
- ₹5 lakhs – ₹10 lakhs
- Above ₹10 lakhs

7. **Do you or any family member have a history of the following pre-existing diseases?** *(Select all that apply)*

- Diabetes
- Hypertension (High Blood Pressure)
- Heart Disease
- Chronic Lung Disease (e.g., Asthma, COPD)
- Cancer
- None of the above
- Other: _____

8. **Do you have any health insurance? If yes, what type?** *(Select one)*

- No health insurance
- Government-sponsored (e.g., Ayushman Bharat, ESI)
- Employer-provided
- Private health insurance
- Community-based insurance

- Other: _____

9. **What services are covered under your insurance?** *(Select all that apply)*

- Hospitalization
- Outpatient services (Consultation, Medicines, Diagnostics)
- Preventive health check-up
- Not sure

10. **In the last year, how many times have you or your family members visited a healthcare facility for a general health check-up?**

- Never
- Only once
- 2 to 3 times
- More than 3 times

11. **If a subscription-based service offered regular NCD health check-ups at a nearby clinic, would you be interested in enrolling?**

- Yes
- No
- Maybe

12. **What is the maximum amount you would be willing to pay *per month* for a basic NCD screening package for one person?**
(This includes monitoring of blood pressure, blood sugar, and doctor consultation)

- ₹50 – ₹100
- ₹101 – ₹250
- ₹251 – ₹500
- ₹501 – ₹1000
- Above ₹1000
- I am not willing to pay

13. **How would you prefer to pay for such a subscription?**

- Monthly
- Quarterly (every 3 months)
- Annually (once a year)
- Not applicable

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