

PATIENT ENGAGEMENT IN AI VOICE FOLLOW-UP

The *Engagement* Benchmark

Reach, engagement, and protocol completion rates across four care program types and six decades of adult life.
Based on 1M+ autonomous voice AI calls.

What we measured, how we measured it, and what the data shows.

This report presents real-world engagement evidence from LOLA®, Tucuvi's Clinical Voice AI Agent, across four care program types and a patient population spanning six decades of adult life.

00 Introduction & methodology

The gap in patient follow-up. How we define reach and engagement. What each care program type covers.

Framework

01 Longitudinal monitoring

Ongoing follow-up for chronic conditions. Heart Failure and COPD protocols analyzed across 9 sites, 1,400+ patients, 50,000+ calls. The hardest test of sustained engagement over time.

Chronic disease

02 A closer look: Heart Failure

One protocol in depth: Weekly contact over nearly a year, engagement at call 5, 10, and 20, and performance broken down by age group.

Deep dive

03 Transitional follow-up

A fixed series of post-discharge calls with a defined endpoint. 800+ patients, 94% completion of the full 5-call program.

Post-discharge

04 One-off clinical follow-up

A single post-procedure check-in with no recurring relationship. 45,000+ conversations across surgical protocols.

Post-procedure

05 Administrative Workflows

Appointment scheduling at scale: no clinical relationship, no prior contact with LOLA, no expectation of a call. The most demanding engagement scenario.

Operations

06 What the evidence tells us

The full picture across all program types, and what it means for care programs.

Conclusions

THE FOLLOW-UP PROBLEM

Patient contact after a clinical encounter is difficult to sustain at scale.

After discharge, after a procedure, after starting a new chronic care program, maintaining structured contact with every patient requires more clinical capacity than most health systems have. The result is a gap between the care plan and what patients actually receive.

"LOLA is a very important addition to our healthcare activities. Thanks to it, we have been able to detect complications early and avoid unnecessary visits to the emergency room. It also allows us to follow patients up more efficiently and keep them under better control."

— Dr. Pedro López Cubillana, Urologist

AI voice agents offer a scalable alternative: structured, autonomous outreach that keeps patients connected to their care team. But before any clinical outcome can be measured, a more fundamental question applies: **do patients actually engage?** Do they pick up the phone, complete the conversation, and continue doing so week after week?

This report takes a focused look at that question. Rather than measuring clinical outcomes, it examines whether the channel itself works, whether the precondition for any downstream impact is reliably met across program types, care settings, and patient demographics. The data draws on 1,000,000+ real interactions across four care program types.

HOW WE MEASURE

Reach

The percentage of outbound calls where the patient, or their caregiver, picks up. LOLA makes multiple contact attempts per scheduled call, so a patient who does not answer on the first try but does on a later attempt still counts as reached.

Engagement

Of the calls that were answered, the percentage where the patient completed the full interaction: LOLA ran through the protocol and the conversation reached its intended end. Answering is not enough. The patient needs to stay through to completion.

WHAT WE MEASURED

This report covers four distinct care program types. Each places different demands on patient engagement, and together they span the full range of how AI voice follow-up is used in clinical practice.

01. LONGITUDINAL

Chronic disease monitoring

Recurring weekly or monthly follow-up with no predefined end date. Designed for conditions like heart failure and COPD where continuous supervision is essential. The most demanding test of sustained engagement, patients receive dozens of calls over months or years.

02. TRANSITIONAL

Post-discharge follow-up

A finite, structured series of calls tied to a clinical event, typically hospital discharge. Calls are scheduled at defined intervals over a set period. Success is measured not just per call, but as completion of the full series.

03. ONE-OFF

Post-procedure check-in

A single outbound call after a procedure or clinical event. The patient has an established clinical relationship from their care episode, what they don't have is prior familiarity with LOLA.
A useful baseline: it tests whether the channel works with no prior AI interaction to lean on.

04. ADMINISTRATIVE

Operational workflows

Non-clinical outreach for tasks like appointment scheduling. No clinical relationship, no prior contact, no expectation of a call.
The most demanding engagement scenario, and the one that best reflects the general patient population's baseline willingness to engage.

METHODOLOGY NOTE

Every protocol in this report is based on validated clinical guidelines and structured workflows. Data covers deployments across multiple care settings. Age groups represent the decade of life at time of enrollment. Protocols with fewer than 30 patients per age group are noted as approximate estimates (~).

A NOTE ON AGE STRATIFICATION

Engagement data stratified by age group is reported throughout this document.

The patient populations in these programs are predominantly older adults, many in their 70s, 80s, and 90s. This is worth noting. These are the patients who tend to benefit most from continuous follow-up, and the ones most often assumed to be poor candidates for autonomous AI voice interaction.

COMMON CONCERN

Age is often raised as a key consideration when evaluating AI voice follow-up programs, with older patients frequently assumed to be less likely to engage with autonomous voice technology.

WHAT THE DATA SHOWS

Reach and engagement remain consistently high across age groups, with no meaningful decline observed from the 30s through the 90s across all program types.

*Across every protocol and care setting in this report, reach and engagement show no meaningful decline with age.
The age stratification data is presented in full for each program type.*

Reach and engagement across weekly follow-up programs with no defined endpoint.

In a longitudinal program, patients receive follow-up calls weekly or monthly for as long as the program runs, months or years. Engagement must hold not just on the first call, but across dozens of interactions over time. **This is the most sustained test of the channel in this dataset.**

1,413

Unique patients

50k+

AI follow-up calls

86.7%

Average reach

95.3%

Average engagement

PROTOCOL TYPE	PATIENTS	CALLS	REACH	ENGAGEMENT
COPD Oxygen Therapy	116	8,474	88.6%	94.0%
Heart Failure Follow-up	109	7,293	91.0%	98.4%
Heart Failure Follow-up	154	6,989	87.7%	95.4%
COPD Follow-up	59	5,438	90.1%	94.9%
Heart Failure Internal Medicine	143	5,268	80.7%	97.9%
COPD Follow-up	122	4,983	72.9%	93.7%
Heart Failure Follow-up	154	4,687	90.3%	97.3%
COPD Follow-up	166	3,691	87.6%	87.3%
Heart Failure Follow-up	390	3,559	87.7%	97.4%
Total · 9 protocols	1,413	50,384	86.7%	95.3%

KEY FINDING · LONGITUDINAL

Across 50,000+ calls and 9 protocol deployments, reach ranges from 72.9% to 91.0% and engagement from 87.3% to 98.4% depending on the program. Performance does not decline as interactions accumulate over time.

Reach and engagement across +7,200 calls over nearly a year.

Heart failure patients are at persistent risk of decompensation: a gradual or sudden worsening of symptoms such as fluid retention, breathlessness, and fatigue that, if caught early, can be managed without hospitalization. Every missed contact is a window where deterioration goes undetected.

In this program, LOLA contacts each patient weekly with no predefined end date, screening for early warning signs and escalating to the clinical team when something is flagged.

ENGAGEMENT OVER TIME

Does engagement hold as calls accumulate?

Reach and engagement at key conversation milestones

CONVERSATION	REACH	ENGAGEMENT
Call 5	89.5%	96.8%
Call 10	92.2%	93.6%
Call 20	94.3%	98.8%

Based on the analysis of over 7,293 conversations, reach and engagement remain stable across conversation milestones, with no meaningful decline as patients accumulate more interactions.

LONG-TERM RETENTION

70%

of patients still actively engaged at conversation 50, after nearly a year of weekly calls.

PERFORMANCE BY AGE GROUPS

The patient population spans six decades of adult life. Reach and engagement remain high across every age group.

30–39	50–59	60–69	70–79	80–89	90–99	Overall
86.8% reach 98.9% eng.	88.5% reach 98.9% eng.	88.6% reach 98.6% eng.	92.9% reach 98.3% eng.	94.8% reach 97.9% eng.	92.7% reach ~100% eng.	91% reach 98.4% eng.

KEY FINDING · LONGITUDINAL

91% average reach and 98.4% engagement across 7,293 calls. Reach and engagement show no decline from call 5 to call 20, and remain stable through call 50. 70% of patients remain actively enrolled after nearly a year of weekly contact. Reach and engagement are sustained across every age group from the 30s through the 90s.

The question is not just whether they answer; but whether they complete the series.

A transitional protocol is a finite, structured series of outbound calls tied to a clinical transition, most commonly hospital discharge. Unlike longitudinal programs, these have a defined endpoint. A patient who answers call one but stops responding by call three is not a success.

877

Unique patients

4,011

AI follow-up calls

94.1%

Reach & Engagement per call

94.1%

Full program completion (5/5 calls)

THE EVIDENCE POST-CARDIAC PROCEDURE FOLLOW-UP

Protocol structure

Patients who have undergone a cardiac procedure receive 5 scheduled calls at 1, 2, 4, 12, and 52 weeks post-discharge. Each call screens for early complications: fever, chest pain, or abnormal wound healing, and escalates to the clinical team when needed.

- 877 patients enrolled across the program
- 4,011 conversations completed in total
- Overall reach and engagement: 94.1%
- Reach and engagement stay flat across all 5 call milestones

Follow-up completion rate

Of patients whose first call was placed more than one year ago, what percentage completed all 5 scheduled calls?

Completed follow-up (5/5 calls received)

 94%

596 out of 634 evaluable patients

Evaluable = patients whose first call was placed ≥ 12 months before the data cutoff, allowing full observation of the 5-call series.

PERFORMANCE BY AGE GROUP

Reach & Engagement · Post-discharge cardiac follow-up

Patient population predominantly aged 70–90+: 30% aged 70–79, 58% aged 80–89, 9% aged 90+.



KEY FINDING · POST-CARDIAC PROCEDURE FOLLOW-UP

94.1% reach and engagement per call across 4,011 conversations. In a population where 97% of patients are aged 70 or above, reach and engagement remain at 93–95% across all age groups with no meaningful variation.

SINGLE INTERACTION PROGRAMS

Reach and engagement when patients have no prior familiarity with LOLA.

Longitudinal and transitional programs build familiarity across multiple interactions. One-off and administrative programs offer none of that, a single call, no prior experience with an AI voice agent.

03. ONE-OFF CLINICAL FOLLOW-UP

A single post-procedure check-in: their first and only interaction with LOLA.

45,712

Conversations

89.6%

Reach

78.2%

Engagement

Post-surgical check-ins conducted in the days following an outpatient or minor surgical procedure. Each call assesses wellbeing and screens for post-operative issues: pain, fever, vomiting, wound concerns, and any new symptoms requiring clinical attention.

Patients have an established clinical relationship from their procedure and discharge, what they don't have is prior familiarity with LOLA. This is their first interaction with an AI voice agent, and there will only be one.

THE ROLE OF ONBOARDING

The most significant predictor of engagement in one-off protocols is not patient age or digital literacy, it is whether clinical teams prepare patients before discharge. When care teams explain that LOLA will call, what the call is for, and approximately when, engagement increases substantially.

This requires no technical configuration, only a brief, clear conversation at the point of discharge.

The most demanding test: no clinical relationship, no prior contact with LOLA, no expectation of a call.

70%+

answered by patients not expecting a call

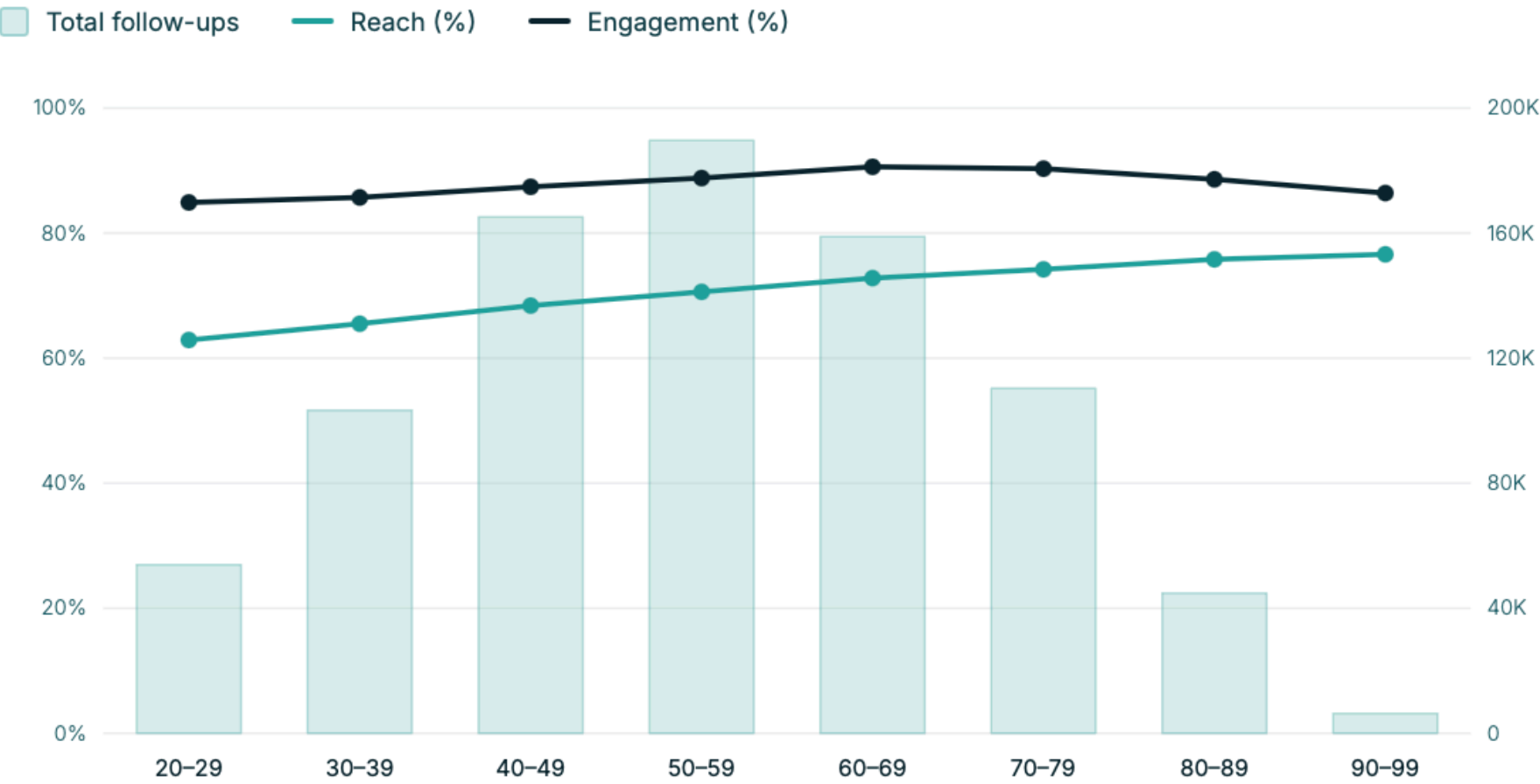
88.5%

Engagement to LOLA's call

Appointment rescheduling at scale. When an appointment needs to change, LOLA proactively contacts the patient, negotiates a new date and time, and confirms the outcome, fully autonomously.

No human agent is involved at any point in a successfully completed interaction. Engagement remains consistently high across all adult age groups, holding between 85% and 95% from the 20s through the 90s.

Reach & Engagement by Age Group



Overall: 70.3% reach · 88.5% engagement

WHAT THE EVIDENCE TELLS US

Across four care program types and 1,000,000+ interactions, reach and engagement remain consistently high regardless of patient age or program duration.

This report does not measure clinical outcomes.

It measures the precondition for them: whether patients can be reliably reached and whether they complete their interactions once contacted.

Across chronic disease management, post-discharge follow-up, post-procedure check-ins, and administrative workflows, the answer is consistent.

“

The difference Tucuvi makes is that it transforms protocols and guidelines into actual workflows. We can now contact 100% of our patients consistently, while our central nursing team can dedicate their knowledge and experience to high-clinical value tasks.

Chief Medical Officer - CUF



BUILT TO SUPPORT CLINICAL TEAMS

A TOOL FOR CLINICAL TEAMS, NOT A REPLACEMENT

LOLA handles the high volume of routine follow-up contacts that clinical teams cannot sustainably do at scale. **It frees nurses and providers to focus on patients who need them most**, while ensuring that the rest of the patient population stays monitored and connected to care.

ESCALATION IS ALWAYS HUMAN

When LOLA identifies a clinical situation that calls for intervention, it escalates it to the care team. Every escalation reflects a judgment call grounded in clinical guidelines and the care team's own workflow configuration, keeping the right people informed at the right moment. LOLA's role is to extend clinical reach, not to replace clinical reasoning.

Questions about how this applies to your program?

Our team is available to discuss engagement benchmarks for your specific care workflows and patient population.

[Talk to our team](#)