

# How AI Converts Patient Balances to Cash

A WhiteSpace Health Thought Leadership Guide



# Table of Contents

Executive Summary	<u>03</u>
Understanding the Patient Responsibility Crisis	<u>04</u>
The Cost of Collection: A Growing Crisis	<u>05</u>
Problem Area 1: The Rising Financial Burden	<u>06</u>
Problem Area 2: Copay and Deductible Collection Failures	<u>07</u>
Problem Area 3: Aging Patient AR and Bad Debt	<u>08</u>
Problem Area 4: Front-Office Inefficiencies	<u>10</u>
Problem Area 5: Prioritization and Collection Efficiency	<u>11</u>
The ROI of AI-Driven Collections	<u>12</u>
Technology and the Patient Payment Experience	<u>13</u>
From Cost Center to Strategic Growth Engine	<u>14</u>
Executive Takeaways	<u>15</u>
About WhiteSpace Health	<u>16</u>
References	<u>17</u>

# Executive Summary

The transformation of healthcare financing is accelerating. With high-deductible health plans (HDHPs) and growing out-of-pocket expenses, patients have effectively become the largest payer class in U.S. healthcare. According to the Kaiser Family Foundation (2024), over 55% of covered workers are now enrolled in HDHPs, with average individual deductibles exceeding \$1,700 and family plans surpassing \$4,500. This shift has radically reshaped the revenue cycle, turning traditional payer-driven cash flow into a complex web of patient liabilities and uncollected balances.

Yet many health systems remain ill-equipped to manage this shift. A 2025 PayZen report reveals that 76% of patient billings go uncollected, and 28% of all patient collections are tied up in open payment plans. Similarly, a Crowe report (2023) found that “self-pay after insurance” balances owed by insured patients account for 57.6% of hospital bad debt, up from only 11% in 2018.

Artificial intelligence (AI) is rewriting this story. By using predictive analytics, segmentation, and automation, healthcare organizations can anticipate patient behavior, reduce bad debt, and convert balances into dependable revenue. WhiteSpace Health’s AI-driven platform empowers providers to move from reactive collection to proactive recovery, transforming patient responsibility into a strategic revenue stream.

# Understanding the Patient Responsibility Crisis

Patient financial responsibility has grown dramatically in the past decade. In 2025, Deloitte and McKinsey both note that rising consumer expectations and cost-sharing burdens are driving a structural shift in healthcare economics. Crowe's data shows that patient statements over \$7,500 now make up 17.7% of total balances, an indicator of rising large-patient responsibility.

RevCycle Intelligence (2023) reports that the average patient collection rate across the industry is 47.8%, while HFMA's 2024 benchmarking shows that only half of patient balances are paid even after multiple statements.

CommerceHealthcare (2025) adds that 64% of Americans expect to pay more for healthcare this year, and over 31 million Americans have incurred medical debt, totaling \$74 billion in just 12 months. The affordability crisis is not only straining households but also throttling provider liquidity.

## Key Challenges:

- Growing patient financial burden from HDHPs and uninsured populations
- Delayed eligibility verification and authorization steps
- Poor point-of-service (POS) collection discipline
- Lack of integrated visibility into patient AR aging and trends

WhiteSpace Health provides real-time analytics enabling leaders to visualize, segment, and act on these challenges, closing the gap between what's billed and what's collected.


# The Cost of Collection: A Growing Crisis

McKinsey and HFMA reveal a cost-to-collect differential that underscores the inefficiency of existing workflows. It costs \$1 to collect \$100 from an insurer but \$3–\$8 to collect the same amount from a patient. As patient liabilities increase, so does the operational burden. Billing teams must now act as both lenders and collectors. Each statement, call, or outreach message increases overhead and staff burnout, often exceeding the balance itself for small payments.

## This inefficiency leads to cascading effects:

- Elevated days in A/R (often exceeding 90 days for self-pay balances)
- Rising reliance on credit lines to maintain liquidity
- Higher administrative overhead for follow-ups and call center management
- Deferred capital investments due to inconsistent cash flow

WhiteSpace Health’s AI mitigates these issues by predicting propensity-to-pay, automating outreach, and prioritizing accounts where recovery likelihood is highest.

Top 10 Contributors		
Provider	Financial Class	Payer Name
	Performing Well	<ul style="list-style-type: none"><li>• <b>Unspecified's</b> Copayment collection rate is currently at <b>3.97%</b> (Nov'23). Decreased by 0.24%, compared to previous Reporting Period (Oct'23). The KPI Threshold is set at [1% -3%], Current Copayment collection rate is Higher than the KPI Threshold.</li></ul>

# Problem Area 1: The Rising Financial Burden

High-deductible plans have fundamentally altered healthcare's financial landscape. Over 60% of employer-sponsored insurance now falls under HDHP structures. The average individual deductible \$1,735 in 2023 is rising sharply, and 38% of Americans delayed care due to cost concerns (KFF, 2024). Patients now represent 20–35% of practice revenue, compared to less than 10% a decade ago.

Yet practices collect only half of patient balances. MGMA (2023) reports that balances over \$500 are rarely paid in full. Collection delays of 60–120 days are typical compared to 14–30 days for payer reimbursement, resulting in rising days sales outstanding (DSO).

## Impact Highlights:

- 54% average patient repayment rate (JAMA Health Forum, 2025)
- 5–10% of practice revenue written off as bad debt
- 3–5× higher cost-to-collect for patient AR
- Visit volume declines of 5–15% due to deferred care

To reverse this trend, providers must adopt strategies traditionally used in consumer finance: segmentation, pre-service estimates, and omnichannel digital billing.

# Problem Area 2: Copay and Deductible Collection Failures

Despite 90% of patients stating they're willing to pay at the time of service, only 60% of providers collect copays upfront. This disconnect erodes revenue and increases post-service collection friction. Common failure points include:

## Front-End Errors

- Outdated eligibility verification: payers update data daily, practices check weekly
- Staff skip collections to avoid patient conflict
- Inconsistent scripting during check-in

## Mid-Cycle Errors

- Coding errors push unexpected responsibility to patients
- Coordination of benefits (COB) failures lead to unclaimed secondary coverage

## Back-End Errors

- Fragmented statements confuse patients. Experian (2023) notes that 60% of patients fail to pay when they don't understand their bill
- Lack of digital outreach delays recovery beyond 30 days

The cumulative effect: 25–35% of collectible patient revenue is lost to avoidable process failures. Implementing AI-based eligibility checks, cost estimations, and segmentation can recover much of this lost revenue.

# Problem Area 3: Aging Patient AR and Bad Debt

In 2023, U.S. hospitals wrote off \$17.4 billion in bad debt due to nonpayment (RevCycle Intelligence). A majority of these accounts, 57.6% were “self-pay after insurance.” Once balances exceed 60 days, collection probability drops by more than 60%.

To address this, WhiteSpace Health uses a Predict–Prevent–Recover model:

## Predict:

AI models forecast the likelihood of full payment and optimal collection timing using payer data, demographics, and payment history. This enables early routing of risky accounts for proactive assistance.

## Impact:

30% reduction in A/R aging and 25–40% increase in collection yield (HFMA & McKinsey, 2024).

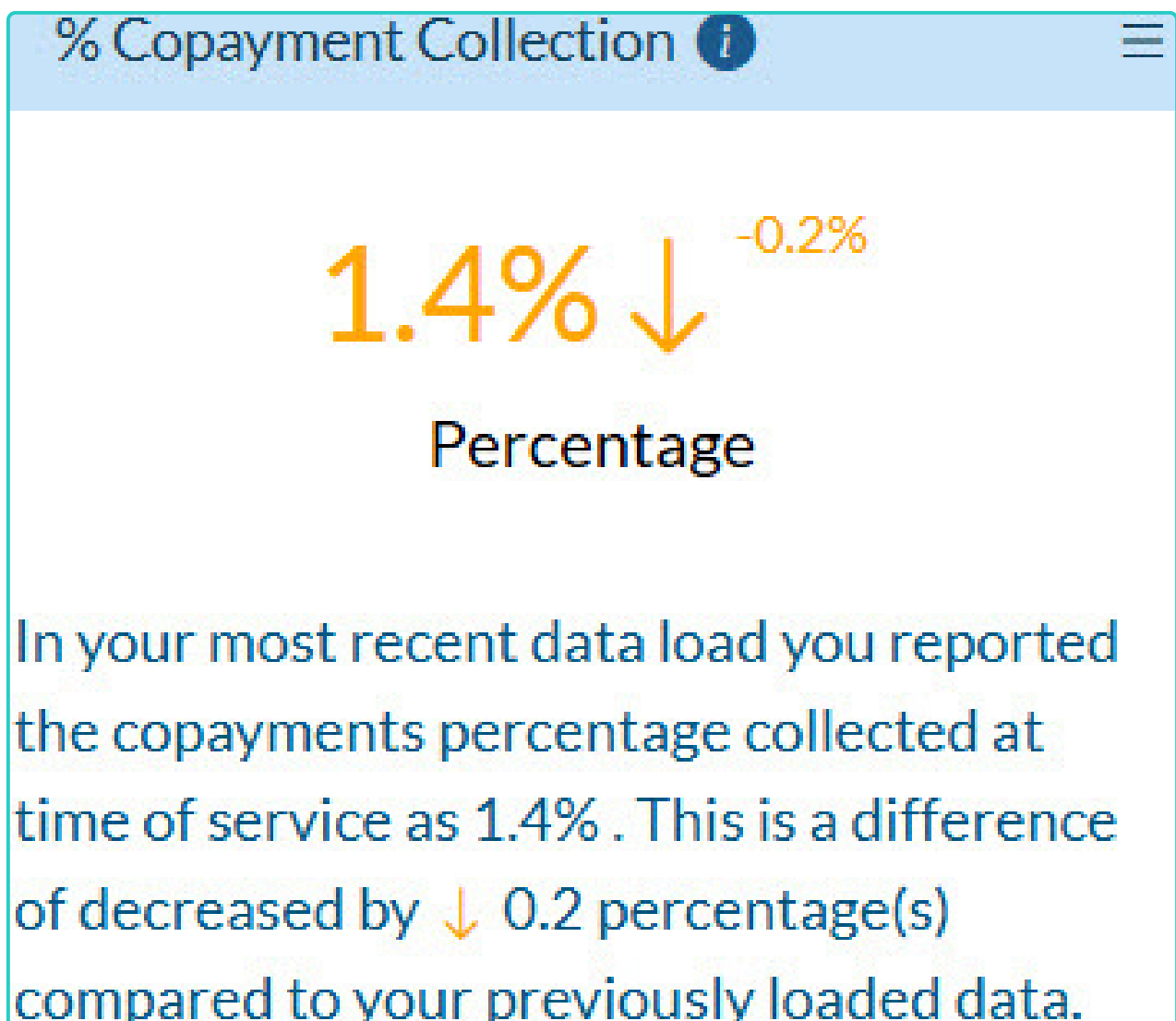
## Prevent:

Real-time cost estimates and pre-service collections prevent future delinquency. Price transparency tools and digital payment options empower patients, while predictive financing recommendations reduce friction.

# Problem Area 3: Aging Patient AR and Bad Debt

Recover:

AI-driven worklists, statement cadence optimization, and propensity-to-pay segmentation improve recovery from aged accounts. Providers using this model see 35–45% reductions in A/R > 90 days, and 4–6% improvements in net collection rate.

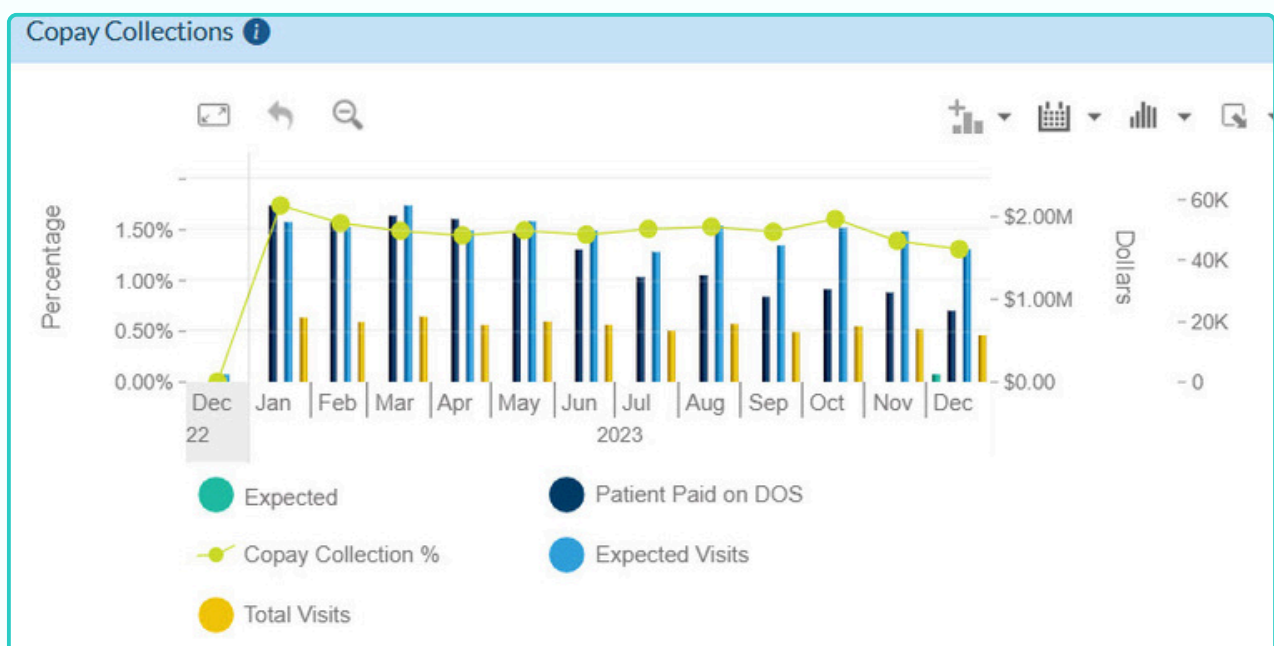


# Problem Area 4: Front-Office Inefficiencies

Front-desk staff are the first line of defense, yet often the weakest link. HFMA (2024) estimates 25–30% of denials originate from registration errors, each costing \$25–\$35 to rework. Common breakdowns include:

- Mistyped insurance data or incorrect plan codes
- Missing secondary insurance capture
- Poor scripting for financial conversations

AI-driven registration validation reduces these errors by cross-referencing demographic and payer data in real time. WhiteSpace Health enables automated data validation, AI-prompted copay requests, and smart KPI dashboards, empowering staff to confidently collect payments without compromising patient experience.

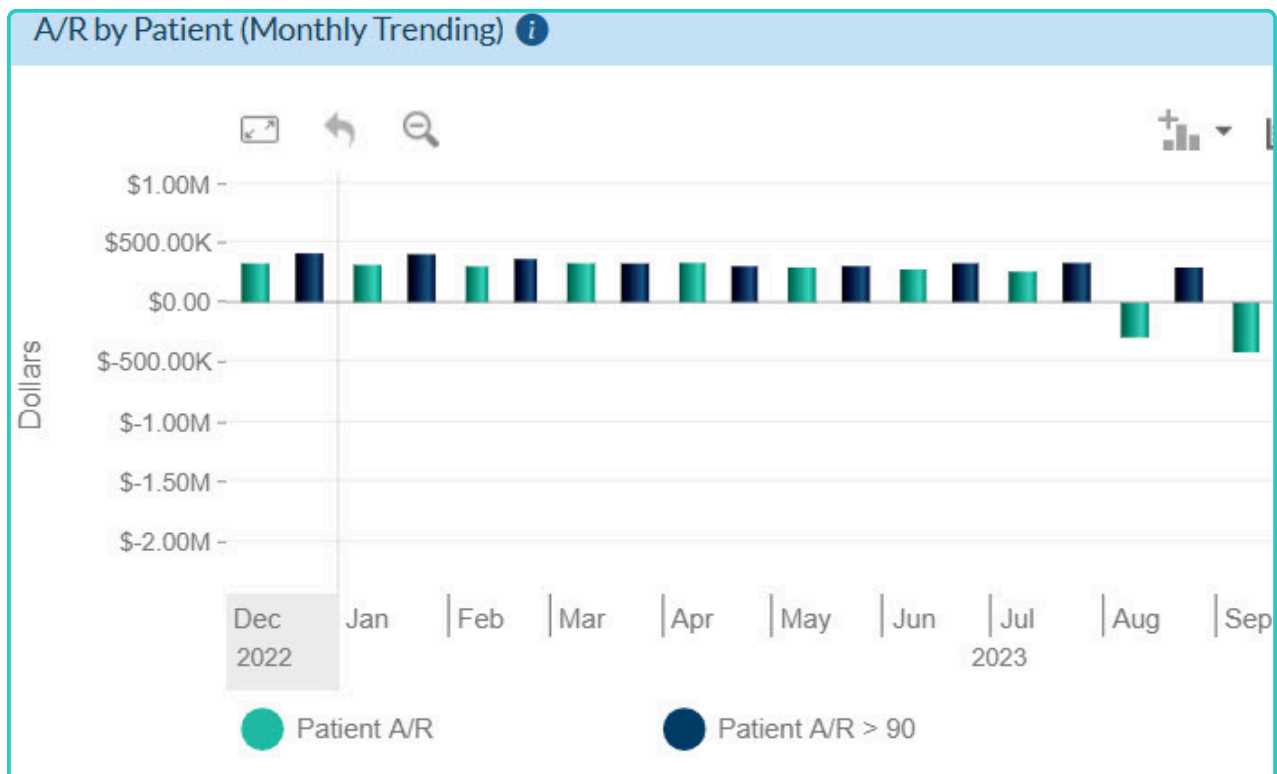


# Problem Area 5: Prioritization and Collection Efficiency

Manual collection workflows fail to distinguish between high- and low-value accounts, leading to wasted effort and poor ROI. AI prioritization transforms this by assigning “collectability scores” that classify worklists:

- High balance + moderate probability: human engagement
- Low balance + high probability: automated outreach
- Low probability: routed to assistance or early outsourcing

WhiteSpace Health’s AI prioritization has demonstrated 20–35% labor efficiency gains and 15–25% improvement in aged A/R recovery through dynamic strategy adjustment and channel optimization.



# The ROI of AI-Driven Collections

Data-driven automation is delivering measurable results across the revenue cycle:

Metric	Traditional RCM	AI-Enhanced RCM	Improvement
A/R > 90 days	28–35%	15–20%	↓ 35–45%
Net Collection Rate	89–91%	94–96%	+4–6 pts
Cost-to-Collect	\$4.10 per \$100	\$2.70 per \$100	↓ 30%
Bad Debt Expense	5–7% of revenue	3–4%	↓ 35%
Patient Billing Satisfaction	55%	80%+	+25 pts

(Sources: Crowe LLP, HFMA/McKinsey 2024, WhiteSpace Health Analytics)

The implication is clear: modern AI can restore financial control while improving transparency and patient trust. Hospitals using AI-enabled pre-service payment policies, such as requiring cards on file, report 20% higher collection rates (PayZen, 2025).

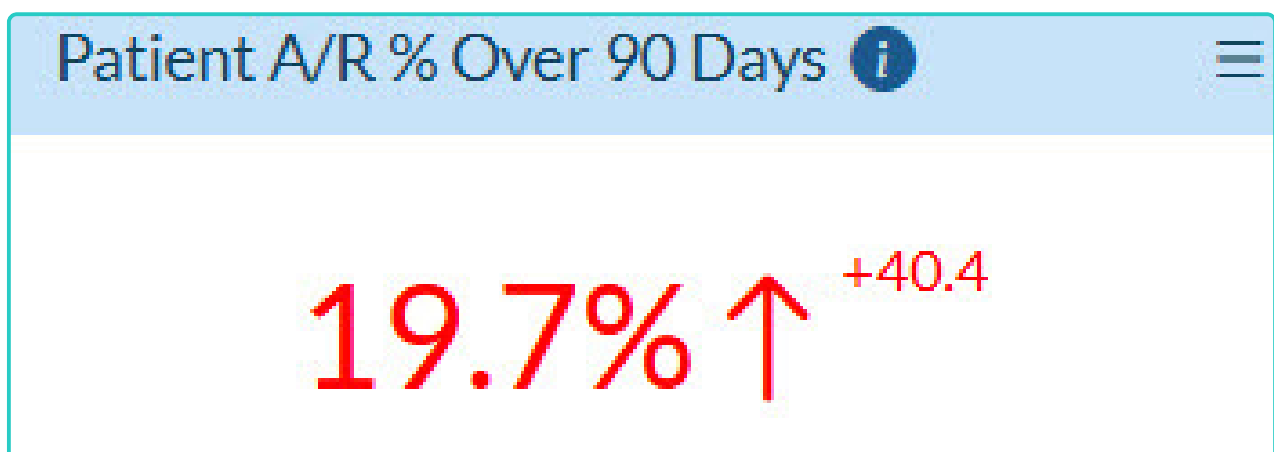
# Technology and the Patient Payment Experience

Patients increasingly expect healthcare billing to mirror retail-level convenience. Yet, healthcare remains mired in manual, paper-driven systems. 2025 surveys by ZS, Deloitte, and CommerceHealthcare show that digital transformation is central to improving engagement and trust.

## Trends shaping the patient financial journey:

- 41% of patients now receive upfront price estimates (CommerceHealthcare, 2025)
- 90% of health systems expect expanded AI adoption for revenue optimization (ZS, 2025)
- 65% still cap payment plans at 24 months, limiting flexibility (PayZen, 2025)

To compete, providers must adopt intelligent billing ecosystems that combine transparency, automation, and empathy, hallmarks of financial experience innovation.



# From Cost Center to Strategic Growth Engine

The traditional view of the revenue cycle as a back-office cost center is obsolete. In the patient-payer era, financial performance depends on seamless data integration and proactive engagement strategies.

WhiteSpace Health's AI platform unifies payer, patient, and provider data to deliver:

- Unified dashboards integrating KPIs across payers, staff, and financial classes
- Predictive segmentation for patient-level risk scoring
- Automated pre-service estimates to enhance transparency
- Smart outreach cadences to maximize collection yield

The result: a paradigm shift from reactive billing to predictive cash conversion, a transformation essential for healthcare sustainability.

**Top 10 Contributors**

Provider	Financial Class	Payer Name
----------	-----------------	------------

**Performing Well**

- **Joseph Brown's** Copayment collection rate is currently at **8.78%** (Nov'23). Decreased by 0.24%, compared to previous Reporting Period (Oct'23). The KPI Threshold is set at [1% -3%], Current Copayment collection rate is Higher than the KPI Threshold.
- **Charles Jeremy's** Copayment collection rate is currently at **8.15%** (Nov'23). Decreased by 6.84%, compared to previous Reporting Period (Oct'23). The KPI Threshold is set at [1% -3%], Current Copayment collection rate is Higher than the KPI Threshold.
- **Charles Williams's** Copayment collection rate is currently at **7.16%** (Nov'23). Increased by 0.43%, compared to previous Reporting Period (Oct'23). The KPI Threshold is set at [1% -3%], Current Copayment

# Executive Takeaways

1. Patient responsibility is now the largest and most volatile segment of healthcare revenue.
2. Traditional billing workflows are no longer scalable for high-volume, low-value transactions.
3. AI and analytics offer a proven path to lower cost-to-collect and bad debt.
4. A predictive model (Predict-Prevent-Recover) aligns technology, policy, and process for end-to-end impact.
5. Embracing consumer-grade financial engagement strengthens both liquidity and patient satisfaction.



# About WhiteSpace Health

WhiteSpace Health delivers cutting-edge healthcare analytics and AI solutions that transform how organizations manage revenue cycles. Our platform integrates predictive modeling, KPI Smart Cards, and automation to optimize payer and patient collections across every touchpoint. From detecting at-risk balances to forecasting recovery potential, WhiteSpace Health empowers CFOs and RCM leaders with intelligent revenue acceleration.

To learn more about transforming your patient collections into cash flow certainty, visit [WhiteSpaceHealth.com](https://www.whitespacehealth.com).



**WhiteSpace**<sup>®</sup>  
HEALTH

# References

- Crowe LLP, Hospital Collection Rates for Self-Pay Patient Accounts (2023)
- HFMA & McKinsey, Cost-to-Collect Benchmarks (2024)
- Kaiser Family Foundation, Employer Health Benefits Survey (2024)
- Ippolito et al., JAMA Health Forum (2025)
- MGMA, Front-End Revenue Cycle Benchmark Report (2023)
- Experian Health, Patient Payment Insights Whitepaper (2023)
- PayZen, Affordability Report 2025
- Deloitte, Global Health Care Outlook 2025
- CommerceHealthcare, Healthcare Finance Trends 2025
- ZS Associates, Future of Health Survey 2025