

Systems-based Care Improvements to Optimize BTK Inhibitors in Chronic Lymphocytic Leukemia Vary in the Community Setting

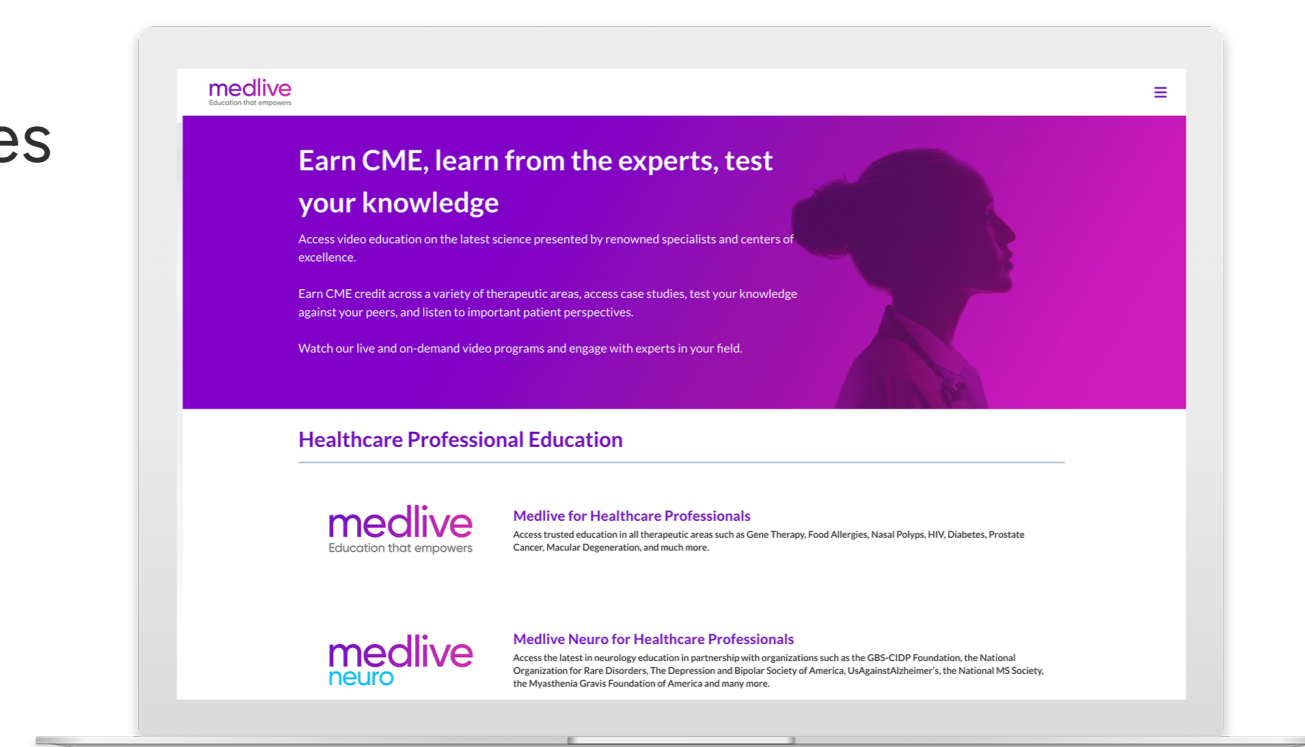
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INTRODUCTION

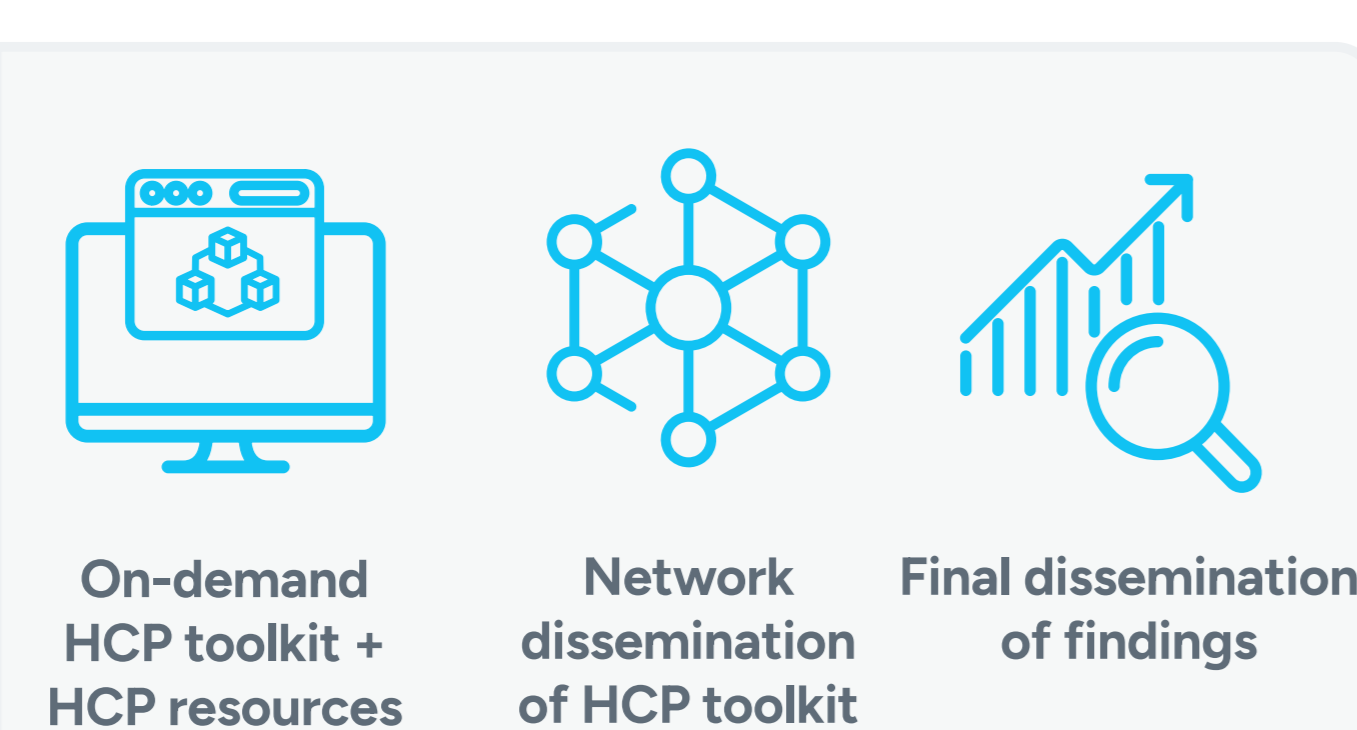
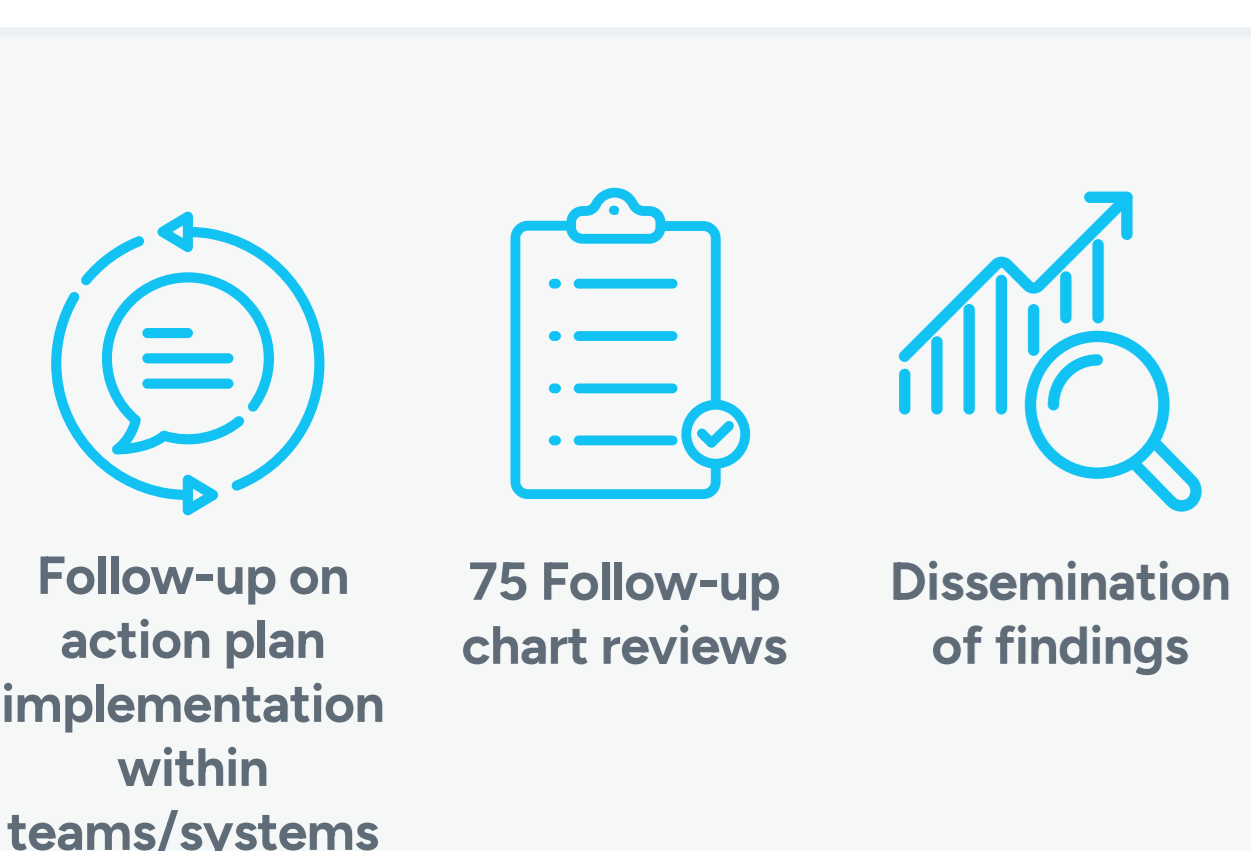
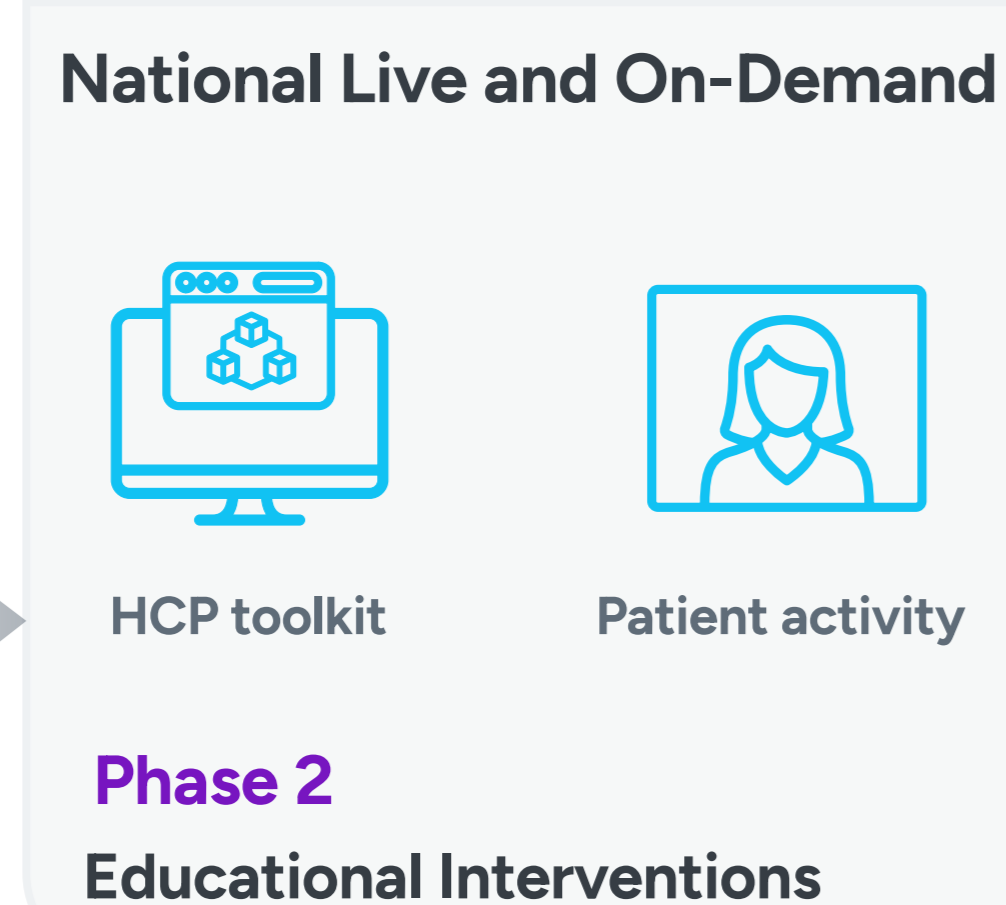
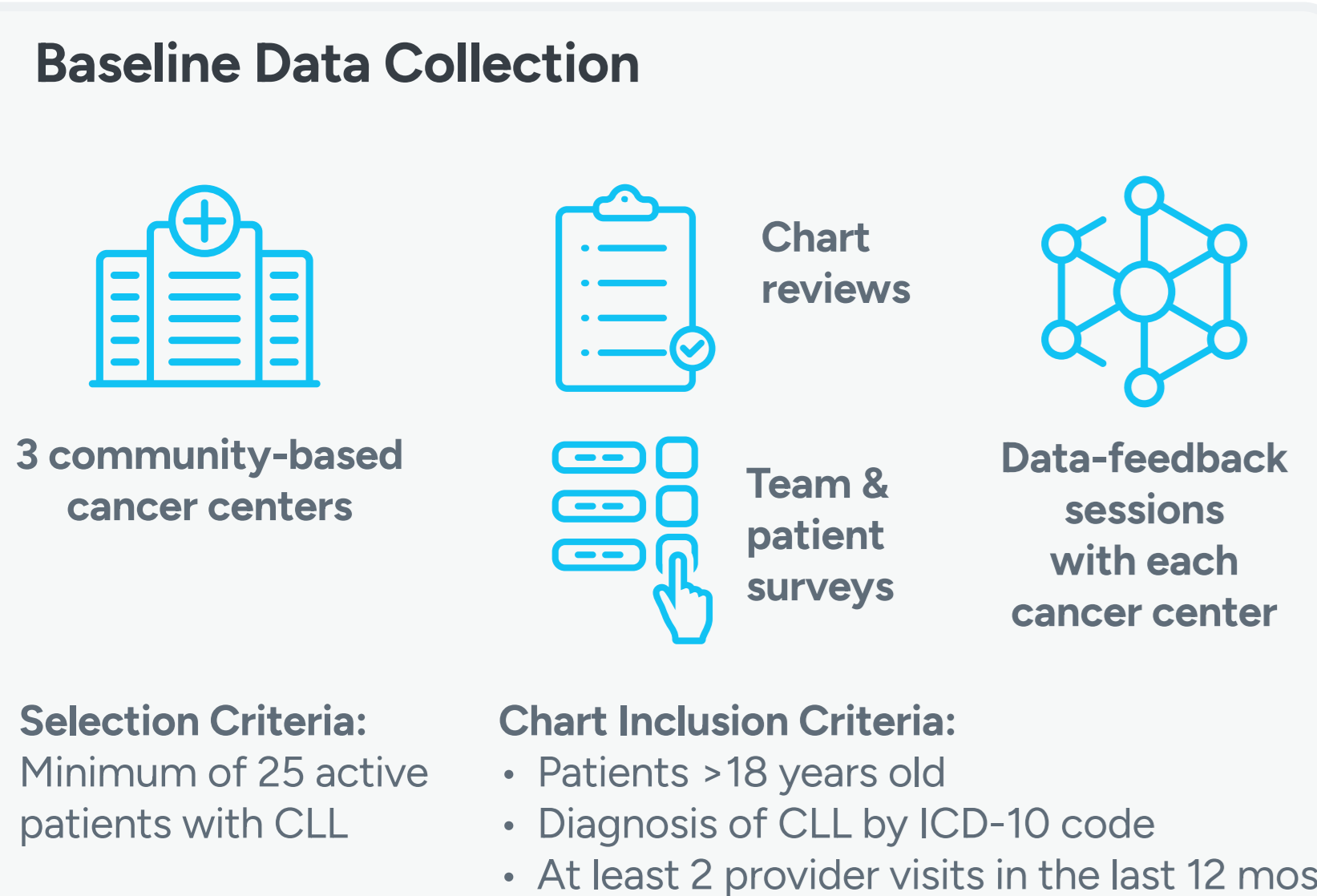
The management of chronic lymphocytic leukemia (CLL) has evolved considerably, including recent approvals of targeted therapies that significantly expand the treatment landscape and improve patient outcomes. As more drugs and combinations join the therapeutic armamentarium, it is increasingly urgent to understand the evidence for each and select the right drug for the right patient. However, too many patients do not receive proper testing to guide therapy and large numbers receive inappropriate chemotherapy even after testing. To resolve real-world barriers to the integration of guideline- and evidence-based care, a 4-phase, implementation-science, systems-based initiative was developed.



METHODOLOGY

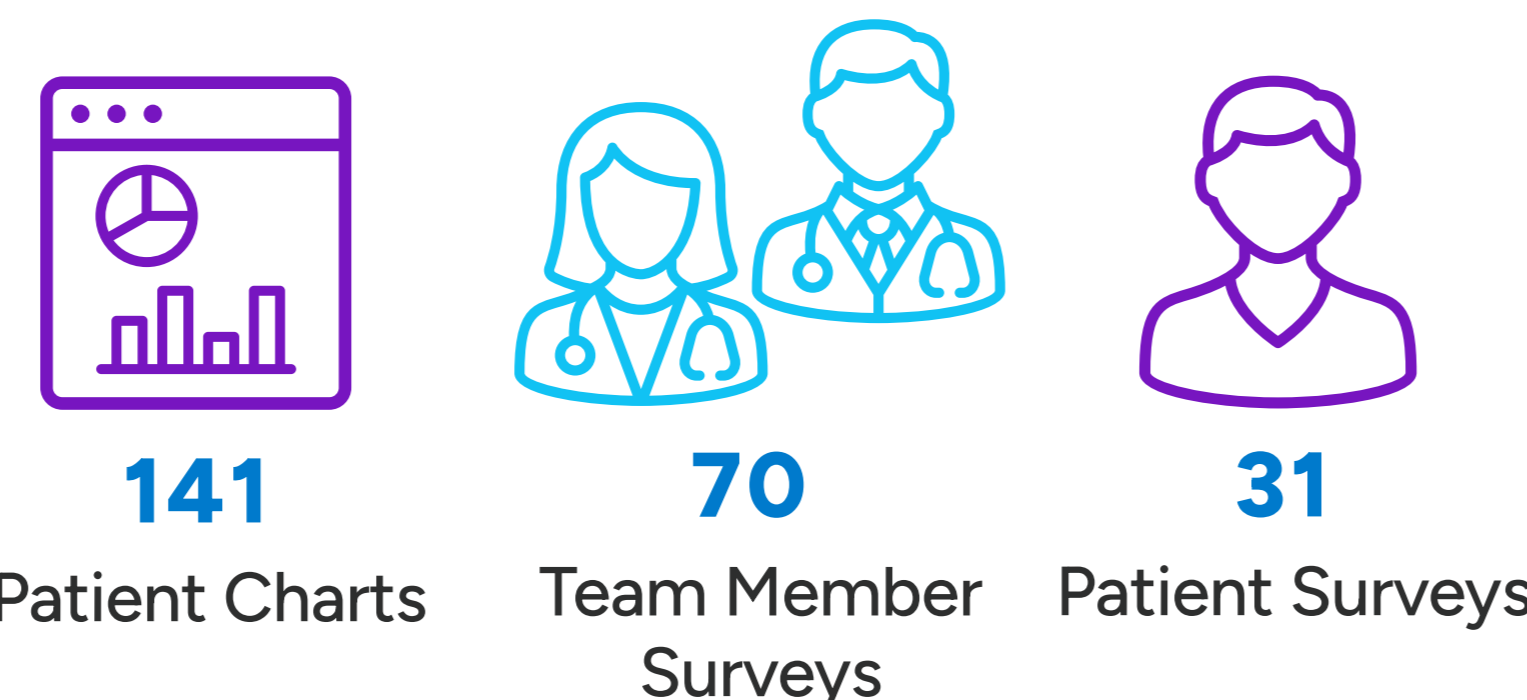


Recruitment and IRB Approval



RESULTS

Data Collection:



Patient Chart Demographics

Category	Patient	Percentage
Gender	Male	67%
Age	70-79 years	76%
Race/Ethnicity	White/non-Hispanic	99%
Insurance	Medicare	54%

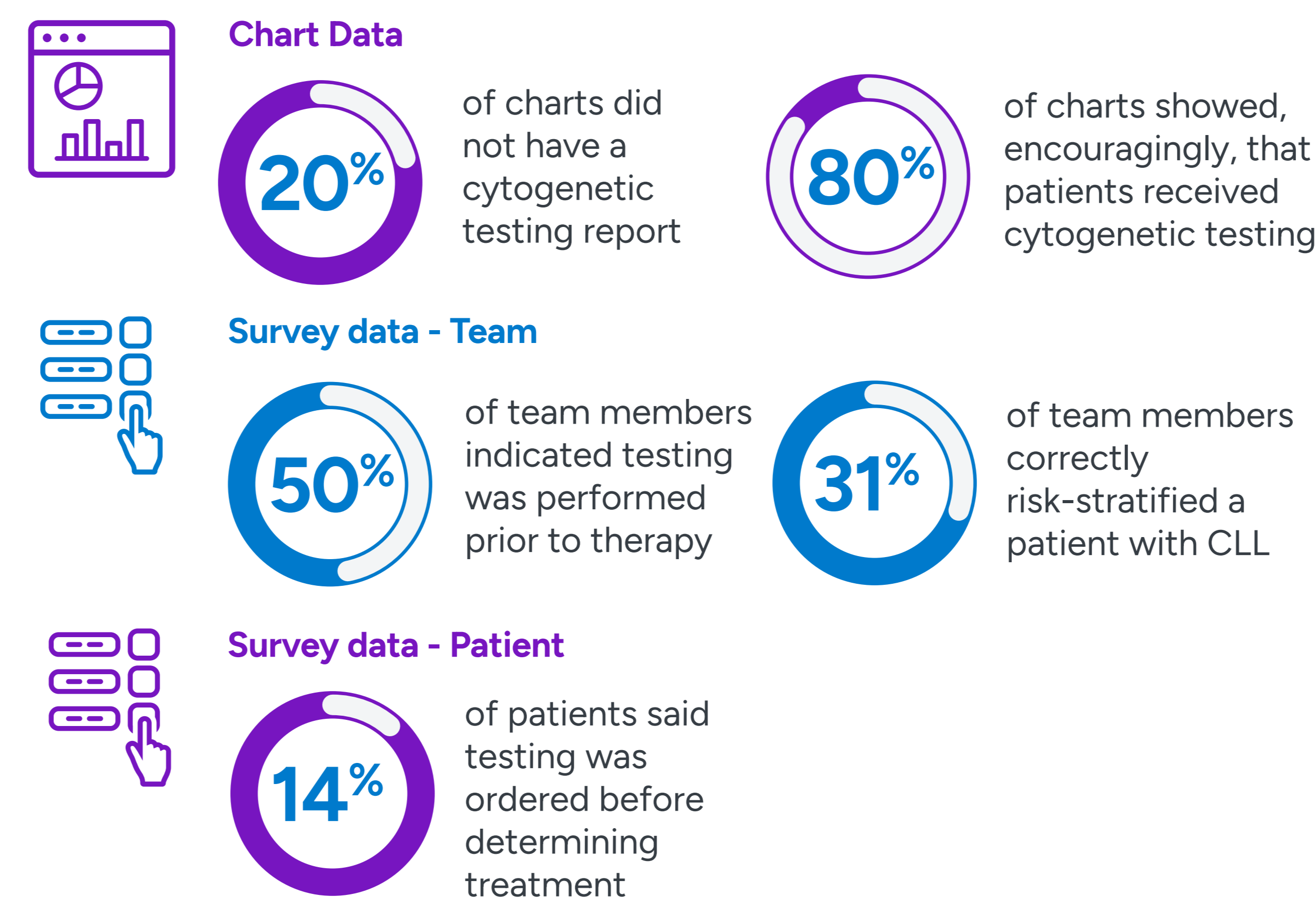
n=141

Chart Review Summary:

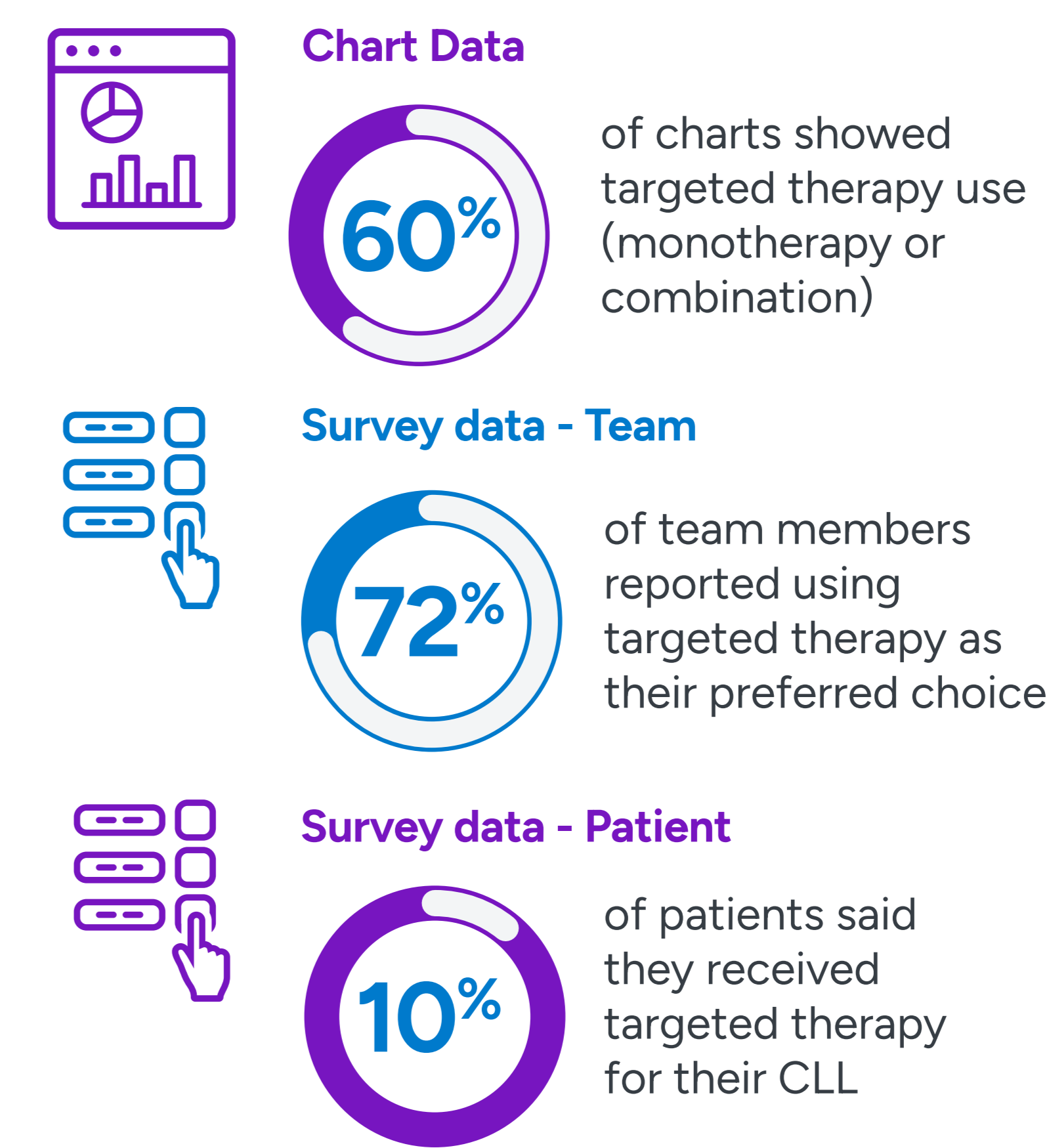
Measure	Baseline n=141	Follow-up n=75
Molecular Testing/FISH		
IGHV mutation reported	28%	61%
Not reported/ordered	13%	7%
Chromosomal Abnormalities Reported		
Abnormalities present	65%	86%
No abnormalities present	35%	35%
First-line Treatment		
Targeted therapy [BTKi vs BCL2]	46% vs 7%	52% vs 4%
Chemotherapy [BR vs FCR]	18% vs 12%	19% vs 7%
Second-line Treatment		
Targeted therapy [BTKi vs BCL2]	n=71 49% vs 10%	n=41 54% vs 20%
Chemotherapy [BR vs FCR]	10% vs 1%	5% vs 0%
Third-line Treatment		
Targeted therapy [BTKi vs BCL2]	n=30 53% vs 10%	n=17 47% vs 29%
Fourth-line Treatment		
Targeted therapy [BTKi vs BCL2]	n=13 39% vs 31%	n=12 58% vs 25%
Fifth-line Treatment		
Targeted therapy [BTKi vs BCL2]	n=11 18% vs 45%	n=6 50% vs 33%
Evidence of:		
Shared decision-making	85%	100%
Assessment of side effects	57%	83%
Counseling on cardio toxicities	50%	71%
Consultation with cardiology	34%	49%
Patient education and counseling		
Patient-education materials	50%	61%
Face-to-face counseling	34%	96%

Persistent Challenges in the Community Setting:

Molecular Testing



Utilization of Targeted Therapy



“[For patient education]... the nurses do a typical teach. We call it a 'chemo-teach' but it's for whatever treatment that they're receiving.”

Impact: Community-based Action Plans:

Action Plan	Center 1 [PA]			Center 2 [ID]			Center 3 [NC]		
	3mo	6mo	9mo	3mo	6mo	9mo	3mo	6mo	9mo
Establish cytogenetic testing guidelines within center to determine high-risk disease	100%	100%	100%	0%	83%	100%	N/A		
Provide education on CLL for nurses and advanced practice providers within center; as well as education and resources for patients based on treatment phase	0%	100%	100%	0%	100%	100%	0%	100%	100%
Apply evidence-based guidelines across the continuum of CLL [from cytogenetic testing to treatment]	0%	100%	100%	0%	100%	100%	30%	100%	100%
Review clinical guidelines for appropriate treatment of patients with CLL toward reduction of chemoimmunotherapy usage	0%	100%	100%	0%	100%	100%	50%	75%	90%
Document patient discussions on smoking/tobacco cessation and provide educational materials	N/A			N/A			50%	50%	100%

“A patient had disease progression and began new treatment with acalabrutinib in July 2023.”

“RNs will now teach for infusion education and document the encounter. Specialty pharmacy will educate on oral oncolytics.”

“At the Oncology Leadership Meeting in March 2024, our hospital system decided to participate in a hospital-wide smoking cessation QI project for the whole hospital system, not just for oncology. As of July 2024, we will begin implementing a new documentation process for smoking cessation that providers and MOAs will utilize.”

“Centralized hematopathology lab re-engaged post site-webinar and adopted reflex testing as standard, impacting 4 additional centers.”

CONCLUSION

This systems-based initiative resulted in meaningful advancements in practice, set new standards for testing and patient-centered care, and provided educational resources for community-based teams. Action-plan domains provide solution-oriented guidance for other community-based practitioners and teams for ease of implementing best practices in the wider hematology/oncology community. The educational initiative and overall impact continue to be evaluated through the course of all 4 phases.