

"It's not uncommon to have patients in their 40s. And, we're going to have the baby boomer population around for a while, which means we're going to have to live in both worlds."

- CEO of independent heart and vascular institute

# How to Adapt Your CV Care Strategies for a New Generation

"If we don't foster the culture of wellness, we will be left behind as the new generations look for that care elsewhere."

- VP of cardiac services at private healthcare system

"The younger generations value protecting their time. They value spending time with family. The traditional schedule does not accommodate that."

-VP of heart and vascular service line at academic medical center

# I have nothing to disclose



# Expected Outcome & Educational Need/Practice Gap

#### **Expected Outcome & Educational Need / Practice Gap**

Cardiovascular programs often invest for visibility rather than long-term strength, struggle to align workforce strategies with growth, and fail to fully engage the next generation of cardiologists. Limited collaboration further fragments care and resources.

There is a need to equip leaders with strategies that strengthen programs through purposeful investment, workforce alignment, generational engagement, and partnership development.

#### **Expected Outcome**

Participants will identify practical approaches to build sustainable, collaborative, and patient-centered cardiovascular programs.



# What you'll learn today

- 1 Invest for strength rather than for the perception of being "innovative."
- Leverage the strengths of the next generation of cardiologists, rather than forcing them into the existing system.
- Align workforce and retention strategies with growth plans.

Partner to serve patients, rather than doing it all alone.



# 01

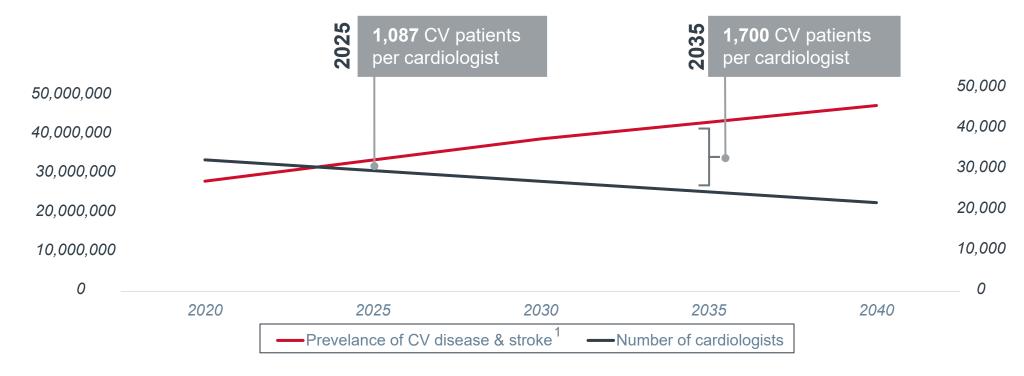
# A new generation with new needs



## CV supply and demand imbalance to intensify by 2035

#### A look at potential cardiovascular (CV) service demand and cardiologist supply

Projections from American Heart Association, American College of Cardiology, and MedAxiom



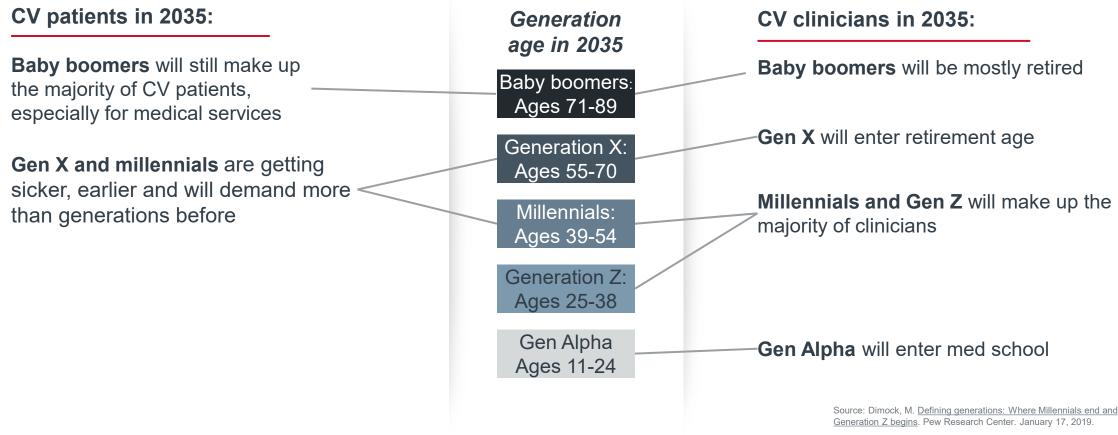
Maximum projection of total patients with coronary heart disease, heart failure, atrial fibrillation, or stroke

Sources: Workforce in Crisis: Charting the Path Forward. ACC. June 2, 2023. Joynt Maddox, KE, et al. Forecasting the Burden of Cardiovascular Disease and Stroke in the United States Through 2050—Prevalence of Risk Factors and Disease: A Presidential Advisory From the American Heart Association. AHA Journals. June 4, 2024.



## Generational shift will impact patients and clinicians

The next 10 years will bring a changing of the guard in CV care.

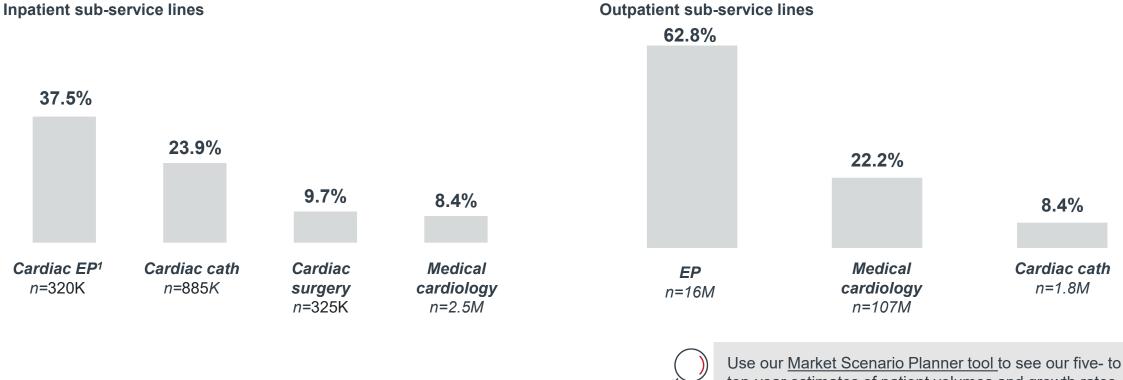




#### Inpatient and outpatient settings to see substantial CV growth

#### 10-year volume growth rates for cardiology services

National estimates from Advisory Board's Market Scenario Planner tool, 2023–2033

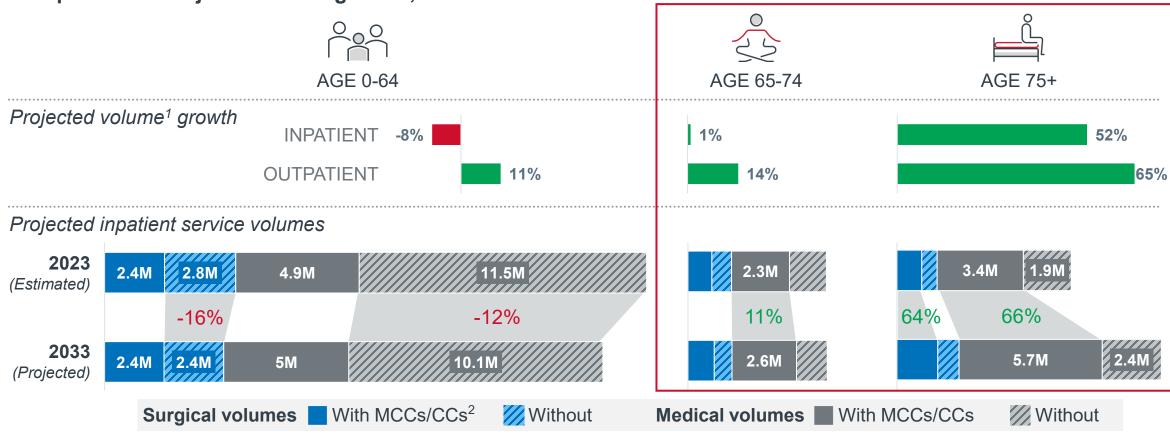




ten-year estimates of patient volumes and growth rates

### Baby boomers will fill inpatient beds with complex cases





<sup>1.</sup> Excludes lab, evaluation & management, radiology, physical therapy & rehabilitation, and miscellaneous services.





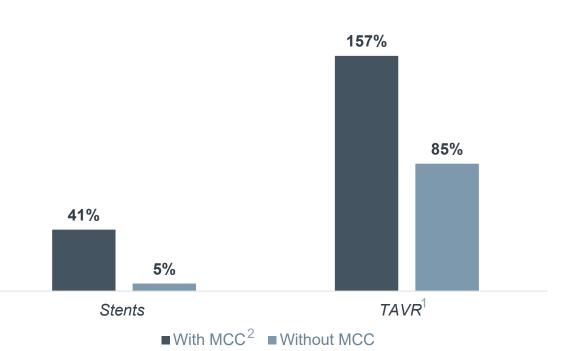
<sup>2.</sup> Major complications or comorbidities (MCC) or complications and comorbidities (CC).

# Case mix shifts will be a hit to service line margins

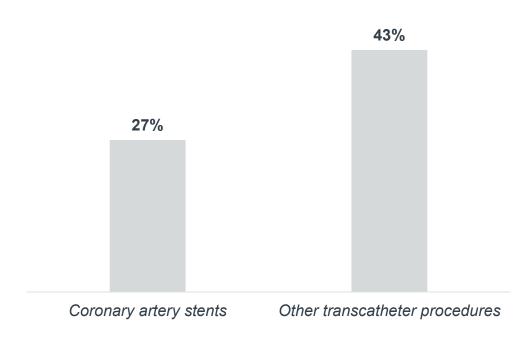
#### 10-year volume growth rates for inpatient MS-DRGs and outpatient groupings

National estimates from Advisory Board's Market Scenario Planner tool, 2023-2033

#### Inpatient stent and TAVR growth



#### Outpatient stent and transcatheter procedure growth



<sup>2.</sup> MCC: Major complications and comorbidities.



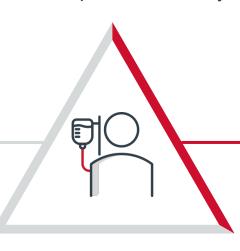
<sup>1.</sup> TAVR: Transcatheter aortic valve replacement.

### And demand more from their CV providers

**Patients** of tomorrow will have different preferences than the patients of today

#### Baby boomer preferences

- Value face-to-face care
- Quality over price
- Unlikely to break a referral
- Avoid travel at all costs



#### Gen X and millennial preferences

- Value convenience and efficiency
- Demand price transparency
- Shop for care
- Willing to travel for quality
- Prefer virtual visits



# Gen X and millennials are getting sicker, earlier

#### Health declining among younger generations

8.2%

Increase in prevalence of obesity among young adults ages 20-44 (2009 to 2020)

9x

Relative increase in death from heart failure in patients <45 years old (2012 to 2021)

14%

Increase in stroke rate in patients ages 18-44 (2011 to 2022)

#### Varying risk factors complicate CV care

#### Generation X: Ages 55-70

More likely experience CV complications from:

- Smoking
- Unmanaged cholesterol

#### Millennials: Ages 39-54

More likely to experience CV complications from:

- Obesity
- Lack of socioeconomic support

Sources: Martinson, ML, et al. <u>Generational Shifts in Young Adult Cardiovascular Health? Millennials and Generation X in the United States and England</u>. J Gerontol B Psychol Sci Soc Sci. February 2022: Sayed A, et al. <u>Reversals in the Decline of Heart Failure Mortality in the US, 1999 to 2021</u>. *JAMA Cardiology*. April 24, 2024; Aggarwal R, et al. <u>Cardiovascular Risk Factor Prevalence, Treatment, and Control in US Adults Aged 20 to 44 Years, 2009 to March 2020</u>. *JAMA*. March 5, 2023; Zhao J, et al. <u>Global trends in Incidence, death, burden, and risk factors of early-onset cancer from 1990 to 2019</u>. *BMJ Oncology*. September 5, 2023; Imoisili OE, et al. Prevalence of Stroke, Behavioral Risk Factor Surveillance System, United States, 2011-2022. CDC. May 23, 2024.



# When demands aren't met, patients look to alternatives

Care avoidance is likely to grow as trust deteriorates among the younger generation

Those who think the healthcare system is failing are...

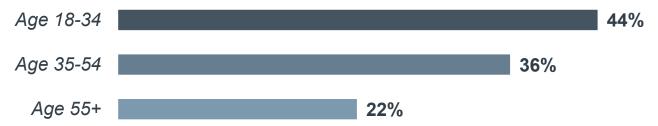
1.5x

2x

More likely to follow advice from **friends** and family that contradicts their doctor

More likely to follow **social media** advice that contradicts their doctor

Percentage who believe the average person can know as much as their doctor Edelman Trust Barometer Special Report, 2023





"People are more engaged with health information and comparing findings across sources, and they want care that treats them like an equal partner."

2023 Edelman Trust Barometer

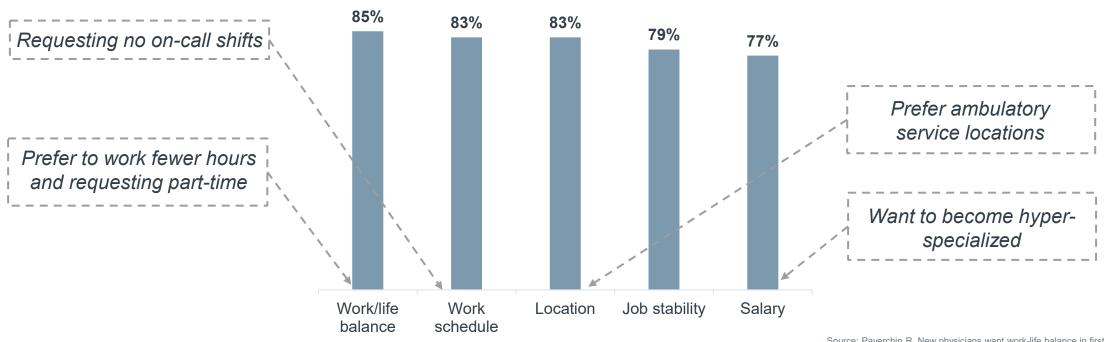


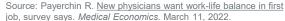
Sources: 2023 Edelman Trust Barometer. Special Report: Trust and Health. Accessed May 23, 2024.

# Gen Z and millennials will also change the workforce

#### Top priorities for new physicians choosing their first job

Medical Economics, 2022







# New generation of clinicians bring fresh skill sets





Relationship-oriented capabilities to understand what motivates patients



Leadership and influencing capabilities to be an effective team leader/team player



Better knowledge base on preventive medicine

LEVERAGE TECH-ENABLED CARE



Continuously learning data-related skills



The ability to accurately interpret genetic information generated by artificial intelligence (AI)



Understanding the business and economics of medicine

Source: Radin J, et al. Rethinking the physician of the future: Embracing new technologies, empathy, and new models of care. Deloitte. Accessed January 17, 2025.



# Top challenges for CV leaders through the next decade

- Increase productivity without overburdening a dwindling supply of cardiologists.
- Tailor growth plans to meet new patient and clinician demands.
- Develop approaches to reduce the financial burden associated with high-demand, low-margin services.



# 02

Adapt for the next generation



### How CV leaders can adapt for the future generation

To manage the SUPPLY and DEMAND IMBALANCE leaders need to…

Invest in the future of clinical support technology

Elevate cardiologists from "doer" to "director"

Align growth plans with workforce realities

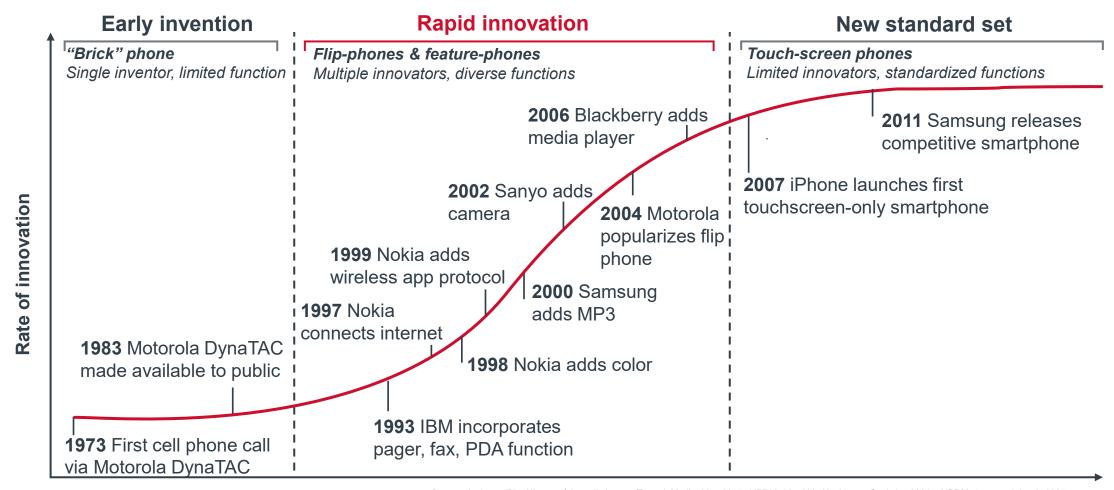
What is our role in critical CV prevention and medical management?



# Invest in the future of clinical support technology



## We are in the flip-phone era of clinician support tools





# Clinical support technology will only improve

Evolution of technology in CV is powerful yet unpredictable

DATA SPOTLIGHT

35.7%

Estimated CAGR<sup>3</sup> for the AI market from 2024-2030

- Generative AI for drug
   discovery and education

  Fractional flow reserve CT
- (FFR-CT)Generative AI to streamline CV

administrative tasks

- RPM¹ to manage critical cardiac conditions
- Machine learning to improve CV risk prediction across various ancestries
  - Automatic identification of incidental CAC<sup>2</sup> by AI

Unknown

Predict outcomes and make clinical recommendations

Collect clinical data and improve decision making

Source: New Cardiac Rehabilitation Survey Reveals 93% of Healthcare Providers Currently Utilize Remote Patient Monitoring Technology. DAIC. November 9, 2023; Fornell D. Cardiology now has more than 100 FDA cleared Al algorithms; experts say that is just the beginning. Cardiovascular Business, December 14, 2023. Mukherjee D. Artificial Intelligence Advances in Cardiology—Part 1: Key Points. ACC. June 12, 2024; Mukherjee, D. Artificial Intelligence Advances in Cardiology—Part 2: Key Points. ACC. June 12, 2024; Artificial Intelligence (Al) Markets. Markets and Markets. May 2024.



<sup>1.</sup> RPM: Remote patient monitoring

<sup>2.</sup> CAC: Coronary artery calcium

<sup>3.</sup> CAGR: Compounded annual growth rate

# Tech will be key to meeting future generation demands

	Population	Key challenge	Example of tech solutions
Patients	Baby boomers	Bring a higher volume for complex, inpatient care	Prisma Health used smart beds to improve quality for hospital patients and reduce burden on workforce.
	Gen X and millennials	Demand convenient access to services, data, technology, and pricing	Mayo Clinic mails remote cardiac monitoring devices to patients, enabling them to receive high-quality healthcare without the need to travel.
Clinicians	Millennials and Gen Z	Value work/life balance and are more tech-savvy	CardioOne invested in Al medical scribe technology to limit clinician time spent charting.



Source: William L. <u>Prisma Health invests \$41 million in state-of-the-art smart beds across its health system</u>. ABC25. July 3, 2024; <u>CardioOne Partners With DeepScribe to Bring Cardiology-specific Ambient AI to Practices</u>. PR Newswire. October 15, 2024; Bahnsen C. <u>Mayo Clinic's Cardiac Monitoring Service sets stage for future of remote patient care around the globe</u>. Mayo Clinic Laboratories. Accessed January 14, 2025.

# Invest in people and processes to navigate innovation

3 key steps to prepare your organization to embrace a technological future

1

#### **Cultivate techsavvy leaders**

- Appoint tech-savvy clinicians to leadership positions
- Create mentorship programs to enhance proficiency in technology

2

#### Raise the bar for tech selection

- Establish a health system committee to evaluate new technologies, ensuring they provide value, improve outcomes, and are cost effective
- Ensure CV service line team has a seat at the table for organization-level tech purchases
- Head to advisory.com to read <u>"5 different</u> ways to test healthcare technology"

3

#### Partner to develop the new standard

Engage in joint R&D projects with medtech companies to codevelop innovative cardiovascular technologies

Mount Sinai BioDesign leverages MedTech partnership to align innovation with health system goals.

Advanced

Basic





# Elevate cardiologists from "doer" to "director"



# Cardiologist burnout signals need for system reform

Cardiologists of today struggle to get the job done

28%

Overall prevalence of mental health conditions among cardiologists

26%

Increase in average wait time for a heart checkup from 2017 to 2022 (26.6 days)

69%

Of interventional cardiologists were affected by burnout in 2022

228,524

Excess CVD deaths between 2020 and 2022 (9% beyond COVID-adjusted prediction)

And the future holds even greater challenge

**▲** 46.8%

Projected growth in pacemaker implants across the next 10 years

**▲** 85.2%

**Projected growth in TAVR<sup>1</sup> procedures** (w/o MCC<sup>2</sup>) across the next 10 years

**▼** 60%

**Shortage of physicians** in nonmetro areas by 2037

<sup>2.</sup> MCC: Major complications or comorbidities



<sup>1.</sup> TAVR: Transcatheter aortic valve replacement

### Elevate cardiologists from "doer" to "director"

More cardiologists must spend time **overseeing care teams and technology**, rather than providing direct care.

#### **CARDIOLOGIST TODAY** Provider of direct

## patient care



Conduct patient visits



Perform diagnostic tests



Maintain medical records



Provide ongoing follow-up care



Manage CV care team



Utilize AI in decision-making



Leader of heart team

Use RPM to monitor patients in real time



**CARDIOLOGIST** OF THE FUTRE

Collaborate with other SL<sup>1</sup> leaders



## How Boulder Community Health elevated cardiologists

#### Strategy

#### Adopted team-based approach

- Formed sub-specialty pods, which include 1-2 physicians,
   1-2 APPs,<sup>1</sup> 3-4 medical assistants, and 1 registered nurse
- Pod physically gathers together and makes decisions as a team

#### Results

28%

Increase in **new patient visits** between 2022 and 2023

15%

Increase in echo testing

#### Focused cardiologists on new patients

- New patient encounters scheduled with cardiologists
- Established patients shifted to APPs, who consult with physicians as needed
- Some flexibility based on physician preference
- Enabled physicians to focus on care plans and bring in new patients
- **Met community's expectation** of visiting with an MD first
- Satisfied cardiologists by allowing option to continue relationship with select patients as they wished – these "easier" patients offered a "break in the day"

1. APPs: Advanced practice providers.

Source: 3 ways Boulder Community Health became a provider of choice for CV care. Advisory Board. 2024.



# Align growth plans with workforce realities



# CV leaders risk outgrowing their clinician supply

Most CV leaders rank growth as their top priority...

...and may fail to account for the workforce reality





Workforce

Limiting factor

"My job is to grow, grow, and grow."

CV service line director



Result: Program fragility

#### Example: North Carolina academic medical center outgrows clinician supply with TAVR expansion

- Backlog of patient demand and favorable margin prompted expansion of structural heart program
- Plan failed to account for standard attrition and backfill limitation
- Loss of one cardiologist plus shortage of anesthesiologists limited ability to meet target volumes

Source: Advisory Board interviews.



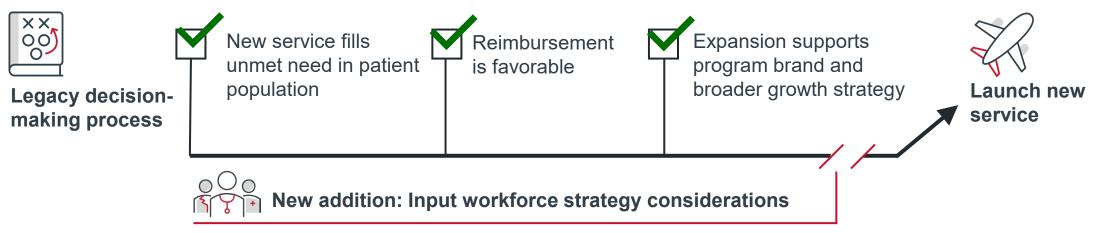
# Workforce realities require a new growth mindset

Conventional "growth mindset"	Reality-aware "growth mindset"
Grow to get bigger	Grow to get stronger
Chase conventional profit pools	Cultivate comparative advantage
Preserve all strategic avenues	Practice principled pruning
Assume sufficient workforce	Harmonize growth with workforce



# Growth and workforce strategies must work in harmony

#### **Process for evaluating growth opportunities**



- 1. Does this growth opportunity align with current clinician supply trends?
- 2. Does this fit with our broader workforce strategy?
- 3. Can we hire the specialists for the service area of interest?
- 4. Can our recruiters compete with competitors growing in the same way?
- 5. How will current staff be impacted by the addition?
- 6. How much additional administrative work will be added?



# Urban hospital system puts differentiation before growth

One cardiac program's unique growth strategy will help them sustain a shrinking workforce

Their strategy

**O1** Avoid competing for specialists and patients

02 Invest in market gaps aligned with clinician preferences

Foster **partnerships** for referrals and resource sharing

Resulting growth plan

Forgo investment in mitral valve program

Partner with two neighboring health system providing the surgery

Transfer investment to neglected ambulatory market

Exchange mitral clip referrals for use of extra MRI space

Add two ambulatory surgery centers (ASCs)

Build path to get patients back after surgery

Shift 90% of vascular surgeons' time from cath lab to ASC

Source: Advisory Board interviews.



#### Commercial tactics: The next generation of CV customers

1

#### **CV** patients

- Bolster direct-to-patient digital, application-based communication
- Elevate wellness branding and marketing
- Develop complimentary digital tools for treatments and devices

2

#### **CV** clinicians

- Broaden engagement and training to include more clinician roles
- Offer digital-first option for cardiologist engagements
- Highlight clinician-facing companion tools that improve decision-making and enable RPM
- Understand the impact of technology that supports decisionmaking on product purchasing decisions

3

#### Life science-provider partnership

- Emphasize efficiency metrics like throughput and contribution margin in value story
- Provide guidance through product launch to maximize profit margin for provider
- Expect changes in purchasing decisions – including the length of the process and roles involved
- If you have a premium-priced product, emphasize your partnership and consulting value



# 03

CV prevention: What's our role?



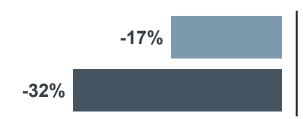
"I can open an interventional cardiologist position, and I will have 20 applicants, but I can't find general cardiologists."

- Senior physician recruiter



### Leaders play hot potato with important CV prevention

#### Percentage reduction in CVD and stroke events by 2050 if prevention efforts begin today



**Achieve Healthy People 2030 targets**: 10% reduction of CV risk factors and 20% improvement in proportion of people with CV risk factors under control

**Aggressive prevention:** Achieve Healthy People 2030 targets, reduce prevalence of obesity by half, and double risk factor control

"That's not really the job of a cardiologist – it's more primary care. Of course, they don't have the staff either."

CV service line director



"Employers and insurers have the motive to prevent CVD, just not the experience."

VP of heart institute

Source: Joynt Maddox KE, et al. Forecasting the Burden of Cardiovascular Disease and Stroke in the United States Through 2050—Prevalence of Risk Factors and Disease: A Presidential Advisory From the American Heart Association. Circulation. June 4, 2024.



# How can we partner for prevention?



# Key takeaways

Invest for strength rather than for the perception of being "innovative."

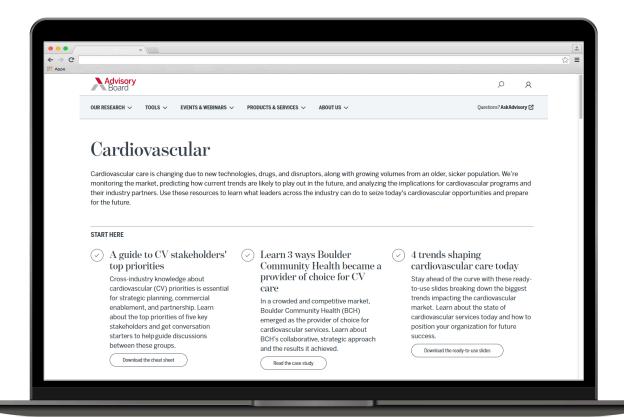
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#### Access our full suite of CV research here



#### Our research library includes resources on:

1. Top market insights

- 2. Stakeholder priorities cheat sheet
- 3. Case studies and tactical guidance
- 4. Life science and Medtech partnership guides

Cardiovascular resource library

