



# The Power of Predictive Data: How MetroHealth Achieved 70:1 ROI

Optum Precision Marketing



# Introducing our speakers



Aimee Smith  
Marketing Director  
Clinical Services

The MetroHealth System



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Marketing Manager  
Clinical Services

The MetroHealth System



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Senior Consultant  
Consumer Analytics







Optum

## About MetroHealth and the Cleveland market

- Cuyahoga County's public hospital system, serving Northeast Ohio since 1837.
- The safety-net health system for the most at-risk members of our community. About two-thirds of MetroHealth's patients are either uninsured or covered by Medicare or Medicaid.
- 8,000-plus employees. 4 hospitals, 4 emergency departments, more than 20 health centers and 40 additional sites in Northeast Ohio.
- MetroHealth's Main Campus is home to the region's most experienced Level I Adult Trauma Center, verified since 1992, and Ohio's only adult and pediatric trauma and burn center.



# What do we mean by “predictive” consumer data?

- 
**Predicted health needs**  
 Clinically built propensity models to predict health care utilization
- 
**Payer status and consumer financials**  
 Predicted insurance types, household income, credit history
- 
**Demographics and lifestyles**  
 Household makeup, socioeconomics and employment, contact information, interests, leisure and physical activities
- 
**Health care preferences**  
 Individual treatment setting preferences (e.g., urgent care)
- 
**Health care attitudes**  
 Validated health care emotional indicators
- 
**Communication and media preferences**  
 Channel preferences, media consumption indicators

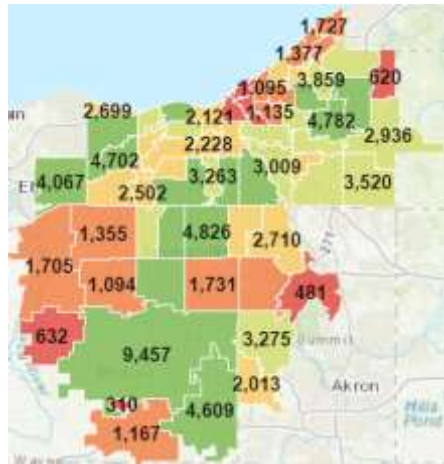
<h2>270M</h2> <p>Identified adult consumer marketing profiles</p>	<h2>800+</h2> <p>Fields of targeting information on each consumer</p>	<h2>180+</h2> <p>Clinical propensity models trained on Optum claims and clinical data</p>
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## Optum propensity modeling

- |   |   |   |   |  |
|---|---|---|---|--|
| <p><b>Behavioral Health</b></p> <ul style="list-style-type: none"> <li>Alcohol Addiction</li> <li>Anorexia/Bulimia</li> <li>Anxiety and Stress Disorder</li> <li>Depression</li> <li>Psychotherapy</li> <li>Tobacco Use</li> </ul> <p><b>Cancer</b></p> <ul style="list-style-type: none"> <li>Bladder Cancer</li> <li>Breast Cancer</li> <li>Colorectal Cancer</li> <li>Gynecological Cancer</li> <li>Leukemia</li> <li>Liver Cancer</li> <li>Lung Cancer</li> <li>MRI for Neoplasms</li> <li>Non-Hodgkin's Lymphoma</li> <li>Pancreatic Cancer</li> <li>Pap Smear</li> <li>Prostate Cancer</li> <li>Radiation Therapy</li> <li>Stomach Cancer</li> <li>Skin Cancer</li> <li>Urinary Tract Cancer</li> </ul> | <p><b>Bariatrics</b></p> <ul style="list-style-type: none"> <li>Bariatric Surgery</li> <li>Morbid Obesity</li> </ul> <p><b>Cardiovascular</b></p> <ul style="list-style-type: none"> <li>A-Fib</li> <li>Cardiac Catheter</li> <li>Cardiac EP</li> <li>Cardiac Surgery</li> <li>Coronary Artery Disease</li> <li>Heart Failure</li> <li>Heart Valve Disease</li> <li>Hypertension</li> <li>MRI for Circulatory Diseases</li> <li>Thoracic Surgery</li> <li>Vascular Surgery</li> </ul> <p><b>Cosmetic</b></p> <ul style="list-style-type: none"> <li>Cosmetic Surgery</li> </ul> <p><b>Endocrinology</b></p> <ul style="list-style-type: none"> <li>Diabetes</li> <li>Engaged Diabetic</li> <li>Type 2 Diabetes</li> </ul> | <p><b>Gastroenterology</b></p> <ul style="list-style-type: none"> <li>Colonoscopy</li> <li>Gallbladder Lap</li> <li>Gastroenterology</li> <li>GERD</li> <li>Intestinal Disorders</li> </ul> <p><b>General Surgery</b></p> <ul style="list-style-type: none"> <li>Hernia</li> </ul> <p><b>Infectious Disease</b></p> <ul style="list-style-type: none"> <li>HIV</li> <li>STD</li> </ul> <p><b>Musculoskeletal</b></p> <ul style="list-style-type: none"> <li>Arthritis</li> </ul> <p><b>Neurology</b></p> <ul style="list-style-type: none"> <li>Alzheimer's disease</li> <li>Brain Surgery</li> <li>Epilepsy</li> <li>Sleep Apnea</li> <li>Stroke</li> </ul> <p><b>Nephrology</b></p> <ul style="list-style-type: none"> <li>Urinary Tract Infection</li> </ul> | <p><b>Ophthalmology</b></p> <ul style="list-style-type: none"> <li>Eye Disorders</li> </ul> <p><b>Orthopedics/Spine</b></p> <ul style="list-style-type: none"> <li>Back Pain</li> <li>Foot Surgery</li> <li>General Orthopedics</li> <li>Hand Surgery</li> <li>Knee / Hip Replacement</li> <li>Knee Arthroscopy</li> <li>Outpatient physical therapy/rehab</li> <li>Spinal Decompression</li> <li>Spinal Fusion</li> </ul> <p><b>Pulmonology</b></p> <ul style="list-style-type: none"> <li>COPD</li> <li>Pneumonia</li> </ul> <p><b>Women's Services</b></p> <ul style="list-style-type: none"> <li>High Risk Pregnancy</li> <li>Hysterectomy</li> <li>Labor and Delivery</li> <li>Mammography</li> <li>Pap Smear</li> </ul> | <p><b>Payer</b></p> <ul style="list-style-type: none"> <li>Commercial Payer</li> <li>Commercial Payer Age 65+</li> <li>Medicare Advantage</li> <li>Medicaid</li> <li>Traditional Medicare</li> <li>Self Pay</li> </ul> <p><b>Overall Patient Health Status</b></p> <ul style="list-style-type: none"> <li>Risk for Severe Covid-19 Case</li> <li>High Future Patient Revenue</li> <li>Consumer Disease Burden</li> </ul> <p><b>Marketing</b></p> <ul style="list-style-type: none"> <li>Email Responder Index</li> <li>Channel Preference Models</li> <li>Consumer Likelihood to Switch Healthcare Provider</li> </ul> <p><b>Sites of Care</b></p> <ul style="list-style-type: none"> <li>Hospital ED</li> <li>Inpatient Admission through the ED</li> <li>Retail Clinic</li> <li>Telehealth</li> <li>Urgent Care</li> <li>Traditional Primary Care Utilization</li> </ul> |
|---|---|---|---|--|

# But it's more than just about data and insights

## Market Analysis Identifies Targets



## Audience and Media Tactic Development

Prospects



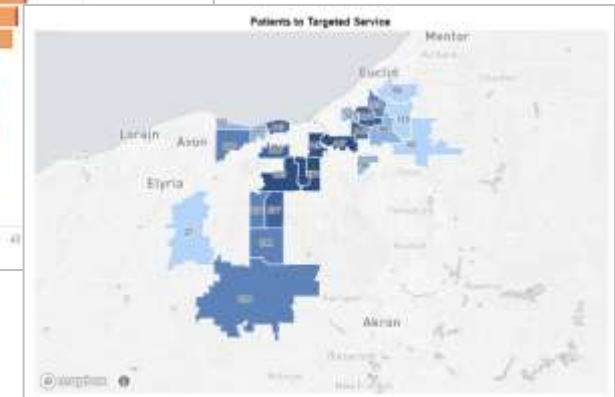
Patients



## Defining Success and Analyzing Encounter Data

Service Line	Value
Spine - PROF	161,800
Spine - IP	145,075
Pain Management - PROF	111,836
Evaluation And Management - PROF	74,938
Pain Management - OP	60,854
Radiology - OP	22,547
Unknown	21,379
Orthopedics - PROF	17,851
Urologists - OP	14,077
Orthopedics - OP	13,412
Evaluation And Management - OP	11,803
Neurosurgery - PROF	8,086
Physical Therapy/Rehabilitation - OP	4,265
Expected Reimbursement	

## Delivering ROI





# Leveraging precision marketing to grow MetroHealth's Spine Center

## Spine Center Campaign Goals

- Raise awareness of the MetroHealth Spine Center
- Drive qualified leads, converting to scheduled appointments into the Spine Center

## Business Goal

- Procedural Transformation surgical volume goal: 979 cases
- Incremental case volume: 58

## Timetable

- Paid media: October 2021 – February 2022
- Earned/Owned: May 2021 – December 2022

**Spine Center**  
Innovative Treatment for Back, Neck and Spine Injuries and Disorders  
Request Appointment or call 216-778-3700

**Spine Center**

Non-Surgical Spine Treatment Options  
Spine Surgery Education Class  
Spine Care  
Failed Back Surgery Syndrome  
Hemilaminectomy Disc Pain  
Myelopathy  
Scoliosis  
Spinal Stenosis  
Radiculopathy  
Spinal Cord Injury Rehabilitation Guide  
Spinal Cord Injury Treatment

Tailored approach to treat your back, neck, and spine disorders or injuries.

MetroHealth Spine Center's team of physicians, surgeons, and specialists are leaders in the treatment of back, neck and spine problems, disorders, and injuries, from simple injuries to the most complex cases.

- Physical medicine and rehabilitation doctors (physiatrists)
- Interventional pain management specialists
- Spine surgeons
- Nurses and therapists

**Appointments**

To schedule an appointment by phone, please call [216-778-3700](tel:216-778-3700). You can also request an appointment online.

[Request Appointment](#)

**Experts in Medical and Surgical Management of the Spine**

We are leading experts in handling acute spine trauma and provide exceptional care in the most difficult and time-sensitive cases. Our surgeons also are experts in minimally invasive techniques for correcting spine issues, even in the elderly.

# Understanding the spine patient journey



Market analysis,  
audience segmentation,  
target list generation



Digital media tactics  
Ex. Native Prog.  
Video, Social, Email

Patient conversion

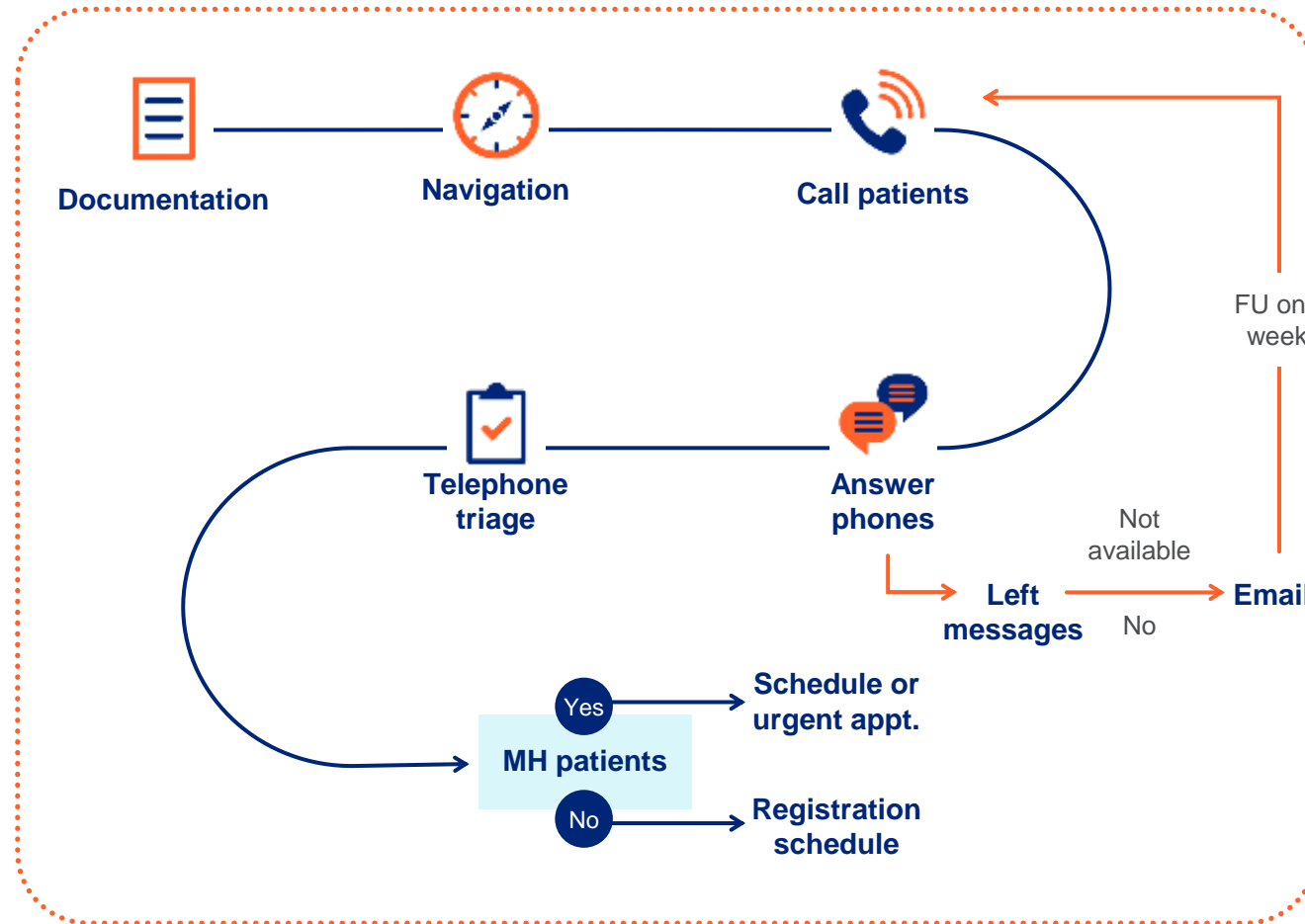


Reporting on reimbursement  
from patient encounter and  
campaign ROI

Online requests

in 8 hours  
2/day

Coordinator



- FU visits
- Data Analysis
  - Conversion
  - Completion
  - MH new patients
  - Medical spine NP/FU
  - Surgical spine NP/FU
  - Surgery cases
- Report/Presentation

# Applying predictive and strategic filters to target the right audiences



## Using predictive modeling to identify target patients

**Product Feature:** Predictive models using AI and machine learning to identify highest propensity for clinical need, payer type, etc.



## Layering in demographic and health behavior modifiers

**Product Feature:** Filters on patient age and health attitudes, targeting older consumers that proactively manage health



## Optimizing by excluding past encounters

**Product Feature:** Integration with client EMR enables encounter-based exclusions, reducing redundancy



**Clinical Need:** Targeting Spinal Decompression or Spinal Fusion patients



**Payer Type:** Targeting Commercial Payer, Traditional Medicare, or Medicare Advantage

- **Age:** Patients over age 45 were targeted for spine campaign
- **Health Behaviors:** Patients more likely to proactively manage health were targeted for campaign

**Spine Encounters:** Excluding patients with Spine IP, Spine OP, and Spine PROF encounters at the system within past 24 months



# Applying new insights to drive messaging and call-to-action

## Don't Let Lumbar Spinal Stenosis Become a Chore This Winter



It's winter in Cleveland, and you know what that means — snow, snow and more snow. Cleaning off your car and shoveling out your driveway is already a chore, but when you're suffering from lower back issues, these tasks can feel next to impossible.

While the occasional twinge or stiffness in the back is considered a normal part of getting older, it's important to be on the lookout for symptoms of a bigger problem, such as lumbar spinal stenosis. Signs include:

- Numbness, tingling, cramping, or weakness in the legs
- Burning pain going into the buttocks and down into the legs
- Loss of sensation in the feet
- "Foot drop," or a weakness in the foot that causes it to slap down when walking
- Loss of sexual ability
- Feeling relief when bending over

If you've noticed any of these symptoms, don't put off care. Specialists at the MetroHealth Spine Center are here to help.

### Why Choose MetroHealth?

At the [MetroHealth Spine Center](#), our multidisciplinary team of physicians, surgeons, pain management specialists and physical therapists tailor care to each patient's needs. As leading experts in spine issues, from simple injuries to complex cases, we will quickly get you to the right care at the right location.

Let's get you back up and shoveling. [Click here](#) to request an appointment at one of MetroHealth's Spine Center [locations](#) across Northeast Ohio, or call 216-778-3700.

## Keep Walking Tall This Winter with Help from the MetroHealth Spine Center



A brisk walk outside in the winter is good for the body and mind. But if you're having pain or difficulty walking upright due to a spinal deformity, you might be cutting that stroll short.

While there are a few conditions that fall under the term spinal deformity, they all involve a misalignment of the natural curves of the spine. These issues can also happen for a variety of reasons, including birth defects, aging and injury.

Symptoms are not one-size-fits-all, but may include:

- Neck or back discomfort
- Poor posture
- Feeling off balance or having difficulty walking or standing
- A hump or curve in the upper back
- Problems moving certain ways
- Fatigue in the back or legs

When spinal deformities and instability begin affecting your ability to perform daily tasks, it may be time to seek treatment from a spine specialist.

### Why Choose MetroHealth?

[MetroHealth Spine Center](#) is care you can trust. Our multidisciplinary team of physicians, surgeons, pain management specialists and physical therapists tailor care to each patient's needs. As leading experts in spine issues, from simple injuries to complex cases, we will quickly get you to the right care at the right location.

The MetroHealth Spine Center gives you options to treat a spinal deformity. [Click here](#) to request an appointment at one of MetroHealth's Spine Center [locations](#) across

## Keep Your Spine in Line This Spring



You have plenty to look forward to this spring— getting warmer outside, spring cleaning and activities with your family, going for a hike in the fresh, spring air. But if you're suffering from cervical spinal stenosis, or a narrowing of the spinal canal around the neck portion of your spine, it can be difficult to enjoy any of it.

Cervical spinal stenosis isn't always easy to diagnose, but it can be treated. If you're experiencing any of the following symptoms, it's important to seek help from a spine specialist before symptoms worsen.

- Pain, stiffness, numbness, weakness, or tingling in the neck, arms, hands or legs
- Frequently dropping things
- Balance and coordination issues
- Feeling relief when bending over

### Why Choose MetroHealth?

At the [MetroHealth Spine Center](#), our multidisciplinary team of physicians, surgeons, pain management specialists and physical therapists tailor care to each patient's needs. As leading experts in spine issues, from simple injuries to complex cases, we will quickly get you to the right care at the right location.

Keep your spine in line this spring. [Click here](#) to request an appointment at one of MetroHealth's Spine Center [locations](#) across Northeast Ohio, or call 216-778-3700.

## Request a Spine Center Appointment Today

First Name\*

Last Name\*

Email\*

Phone\*

Address

City

State

Zip Code\*

Reason for Visit

Please verify your request\*

I'm not a robot 

Submit

# Applying new insights to drive messaging and call-to-action

**MetroHealth** Sponsored

Does your back hurt when you bend over? Does your arm often tingle? Is your neck in pain when you turn it a certain way? This could be a sign of back or spine issues. Make an appointment today to see one of our specialists.



**MetroHealth** [METROHEALTH.ORG/SPINE](https://metrohealth.org/spine)  
**Get Back Into Life** Make an appointment now. Contact us

Like Comment Share

**MetroHealth** Sponsored

Does your back pain get worse the more you move? Do you have difficulty standing straight? These could be signs of back or spine issues. A MetroHealth Spine Center specialist can help you get back into life. Schedule an appointment today.



**MetroHealth** [METROHEALTH.ORG/SPINE](https://metrohealth.org/spine)  
**Get Back Into Life** Make an appointment. Contact us

Like Comment Share

**MetroHealth** Sponsored

Does your back hurt when you bend over? Does your arm often tingle? Is your neck in pain when you turn it a certain way? This could be a sign of back or spine issues. Make an appointment today to see a MetroHealth Spine Center specialist.



**MetroHealth** [METROHEALTH.ORG/SPINE](https://metrohealth.org/spine)  
**Get Back Into Life** Make an appointment. Contact us

Like Comment Share

**MetroHealth** Sponsored

Do you have weakness or numbness in your back, thighs or legs when you stand? Do you feel better when you bend forward? These could be signs of back issues. A MetroHealth Spine Center specialist can help you get back into life. Schedule an appointment today.



**MetroHealth** [METROHEALTH.ORG/SPINE](https://metrohealth.org/spine)  
**Get Back Into Life** Make an appointment. Contact us

Like Comment Share

# Spine campaign results

## Consumer Data Platform list encounters 08/01/2021–02/09/2023

Unique expected reimbursement to targeted service\*

**\$8,850,150**

Unique patients acquired to targeted service\*

**7,364**

Total patient acquisition rate to targeted service across all lists

**3.7%**

### Methodology

Report summarizes activity from patients found on marketing campaign lists during the attribution period (18 months after campaign start date). Lists of patients and prospects were generated using Optum CDP and leveraged in email, direct mail, and digital advertising. Control groups were used to validate the impact of marketing in patient acquisition when applicable.

### Target encounters matched to Optum CDP lists

Campaign segment and channel	Campaign start date	Audience size	Control size	Expected reimbursement	Encounters	Patients	Acquisition rate	Patients (control group)	Acquisition (control group)
Spine (Email)	Aug. 2021	32,425	N/A	\$2,755,340	10,266	2,260	<b>6.97%</b>	N/A	N/A
Spine (Digital Ads)	Oct. 2021	107,161	11,906	\$1,904,889	6,811	1,436	<b>1.34%</b>	47	0.39%
Spine (Email)	Feb. 2022	120,759	N/A	\$7,626,521	25,857	6,212	<b>5.14%</b>	N/A	N/A

# Spine campaign results CONTINUED

## Web appointment form fills from 7/1/2022–2/09/2023

Expected reimbursement  
to any service

**\$1,568,088**

New patients to any  
service

**27**

Patient acquisition rate to  
any service

**93%**

Patient acquisition rate to  
targeted service

**21%**

### Methodology

Report summarizes activity from patients that completed **website form-fills** during 2022 and came in for services at MetroHealth.

### All encounters matched to website form fills

Campaign	Completed form fills	Service type	Expected reimbursement	Encounters	Patients	Patient acquisition rate	New patients*
2022 Spine website form fills	443	Targeted encounter	\$168,884	767	91	21%	6
		Other services	\$1,399,204	5651	323	73%	27

**New Patients:** New to System (no encounter at any MetroHealth facility within the past 3 years)

# Lessons learned and future plans

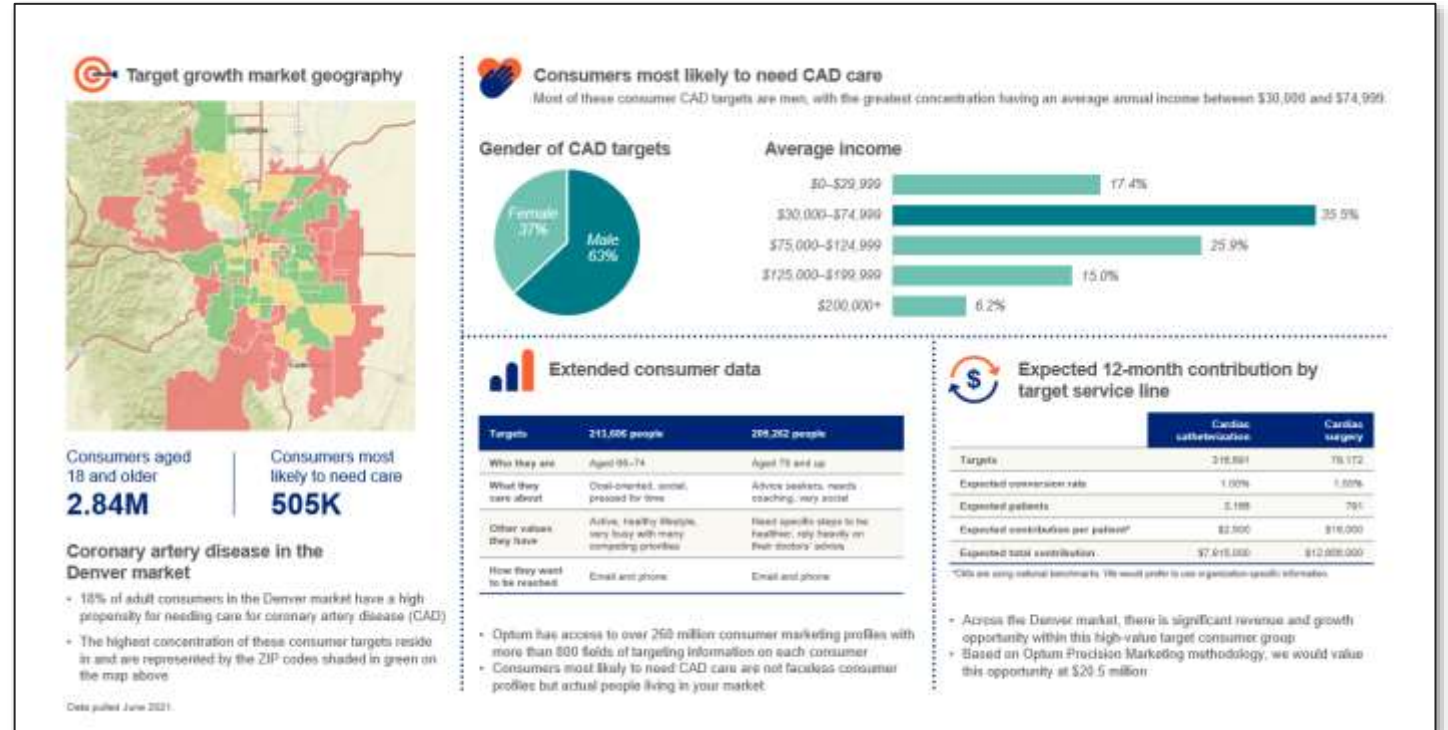


# Questions

# Complimentary market analysis

Get a free custom snapshot of the consumers and potential patients in your market.

[Optum.com/FreeMarketReport](https://Optum.com/FreeMarketReport)



# Thank you



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