



**Pennington Biomedical
Research Center**
Louisiana State University



Be the Reason Kids Greaux Healthy

Annual Childhood Obesity Conference

The Future of Pediatric Obesity Care

From Evidence to Scalable Impact

Presented by Keynote Speaker Dedrick Moulton, MD

The Future of Pediatric Obesity Care – From Evidence to Scalable Impact

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His mother saw it on the screen before we said a word.

A 15-year-old, seen for constipation. She learned about his weight by accident — reading a chart note over a fellow's shoulder.

Based on a real clinical encounter; identifying details altered.



Disclosures

Dedrick Moulton, MD

Relevant financial relationship: Blue Cross Blue Shield Federal Employee Program

No other relevant financial relationships to disclose.

Learning Objectives

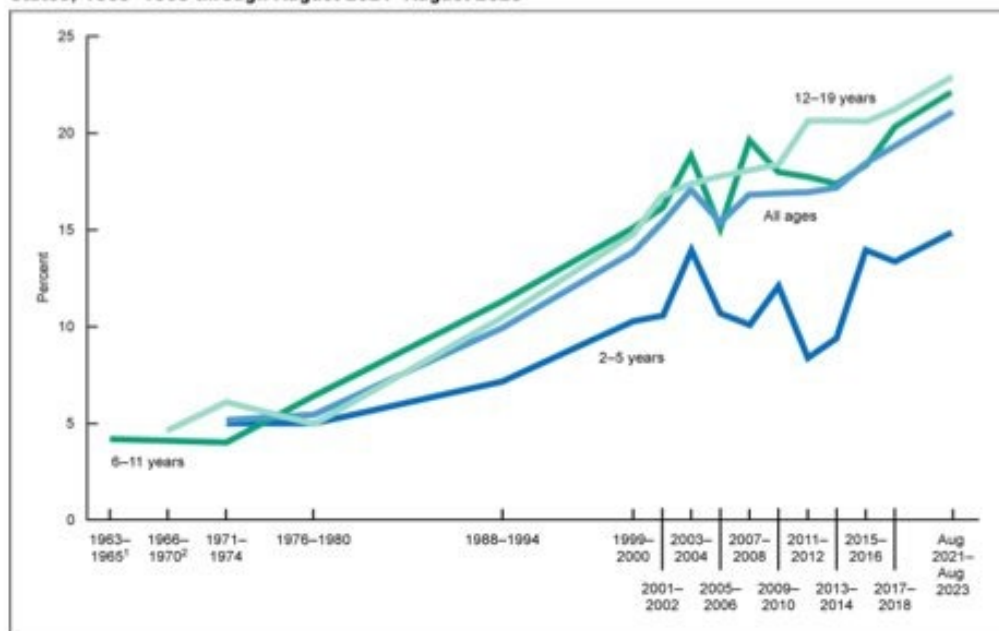
By the end of this session, participants will be able to:

- 1 Describe the evidence for embedding obesity screening into any clinical encounter, rather than confining it to designated visits.
- 2 Explain how coordinated, multispecialty care addresses obesity-related comorbidities more effectively than fragmented, single-specialty referral pathways.
- 3 Describe how geo-spatial and social-determinants-of-health data can identify the communities most affected and target intervention accordingly.
- 4 Discuss policy and reimbursement strategies that support sustainable, comprehensive pediatric obesity care.
- 5 Identify concrete roles for clinicians, researchers, policymakers, and community partners in building a coordinated pediatric obesity care model in Louisiana.

A problem that has been growing for sixty years

Obesity prevalence among children and adolescents has risen steadily since the 1960s, across every age group

Figure. Trends in obesity among children and adolescents ages 2–19 years, by age group: United States, 1963–1965 through August 2021–August 2023



¹Survey did not include ages 2–5 or 12–19.

²Survey did not include ages 2–5 or 6–11; data for adolescents is ages 12–17, not 12–19.

NOTES: Obesity is defined as body mass index (BMI) at or above the 95th percentile from the sex-specific BMI-for-age 2000 CDC Growth Charts.

SOURCE: National Center for Health Statistics, National Health Examination Surveys, 1963–1965 and 1966–1970; and National Health and Nutrition Examination Surveys, 1971–1974, 1976–1980, 1988–1994, 1999–2016, and August 2021–August 2023.

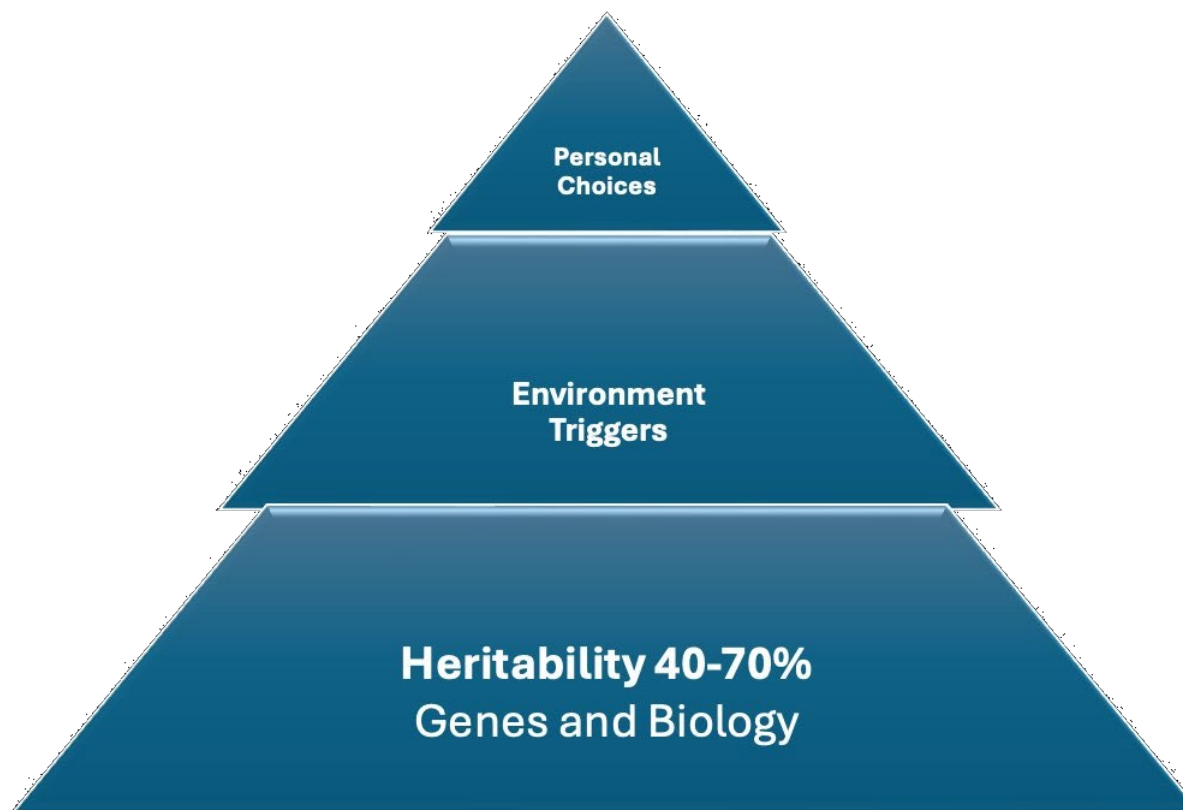
Roughly quadrupled

Obesity prevalence among 12-19 year-olds has risen from roughly 5% in the early 1970s to over 20% today.

Every age group shows the same upward trajectory -- this is not a plateauing trend.

Not simply a personal choice

Obesity is a biologically driven condition, layered with environmental and behavioral factors



Genetics and biology form the base of the pyramid, not personal choice at the top -- which is exactly why blame-oriented, weight-loss-only models miss the point.

Naming what we're screening for

Every number on the next few slides refers to one of these four BMI-percentile categories

Overweight

85th–94th percentile

Obesity (Class 1)

≥95th percentile

Severe obesity (Class 2)

≥120% of 95th
(BMI ≥35)

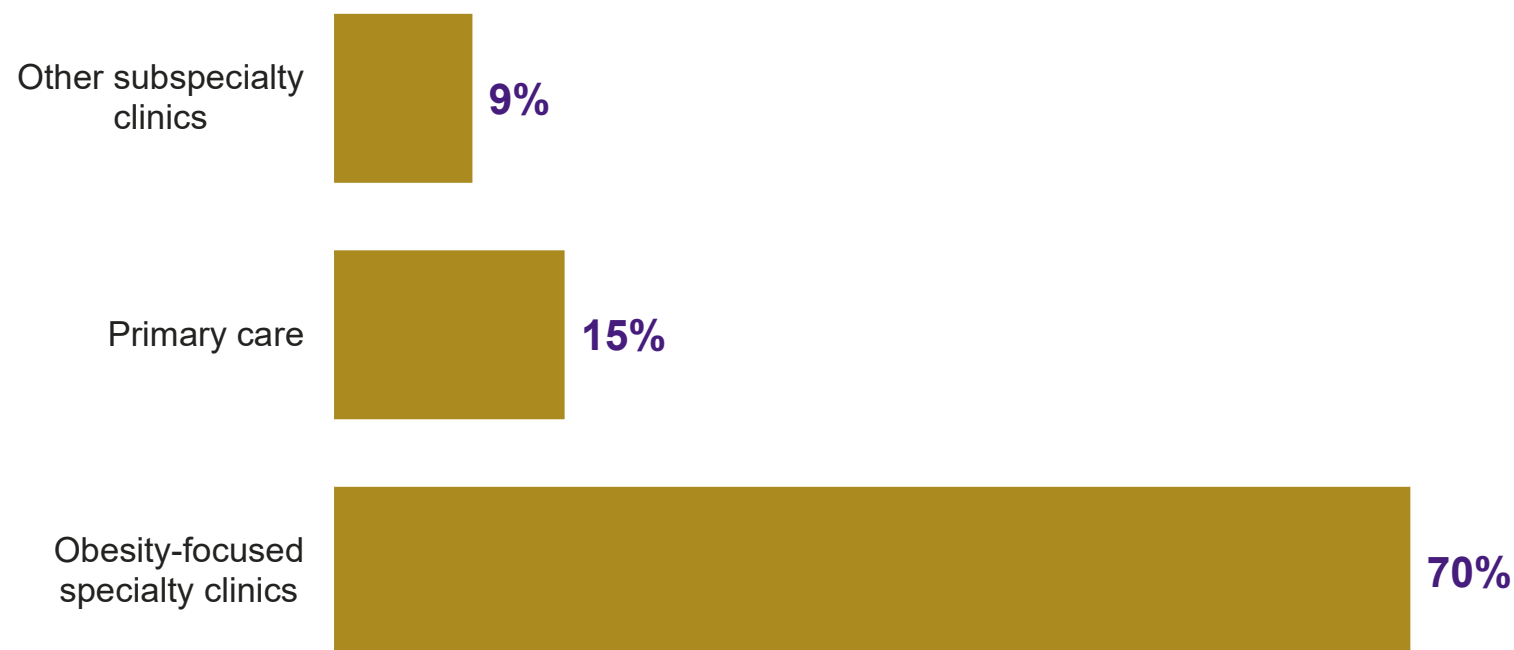
Severe obesity (Class 3)

≥140% of 95th
(BMI ≥40)

This is the American Academy of Pediatrics' percentile-based classification. It's the vocabulary the rest of this talk uses — including "class 3," which the data on the next few slides refers to directly.

The system only looks when you ask it to

Documentation of severe early-onset obesity at two US tertiary children's hospitals, by care setting



70% vs 9%

The gap isn't about any one clinician's diligence — it's about which door the child walked through.

The gap has more than one shape

Documentation and treatment vary by who the child is, not only by which door they walked through

29% vs 17%

Obesity documentation, girls vs boys

26.9% vs 19.1%

Obesity-prevention counseling, private insurance vs Medicaid

27% vs 19%

Obesity documentation, Black vs white children

Yet Black adolescents remain less likely to be referred for surgical treatment.

Setting, sex, race, and insurance type all shape whether a child gets seen — which is exactly why a universal, encounter-based trigger matters: it removes a source of bias that a provider-initiated one cannot.

Every encounter is a screening opportunity

The fix isn't a new test — it's treating any weighed encounter as a valid trigger point

13.2%

National rate of appropriate obesity diagnosis among hospitalized children

8.5%

Rate in the South census region — the lowest of any US region



Well-check



ED visit



Subspecialty



Inpatient



Urgent care

BMI $\geq$ 85th percentile → screening trigger, regardless of setting

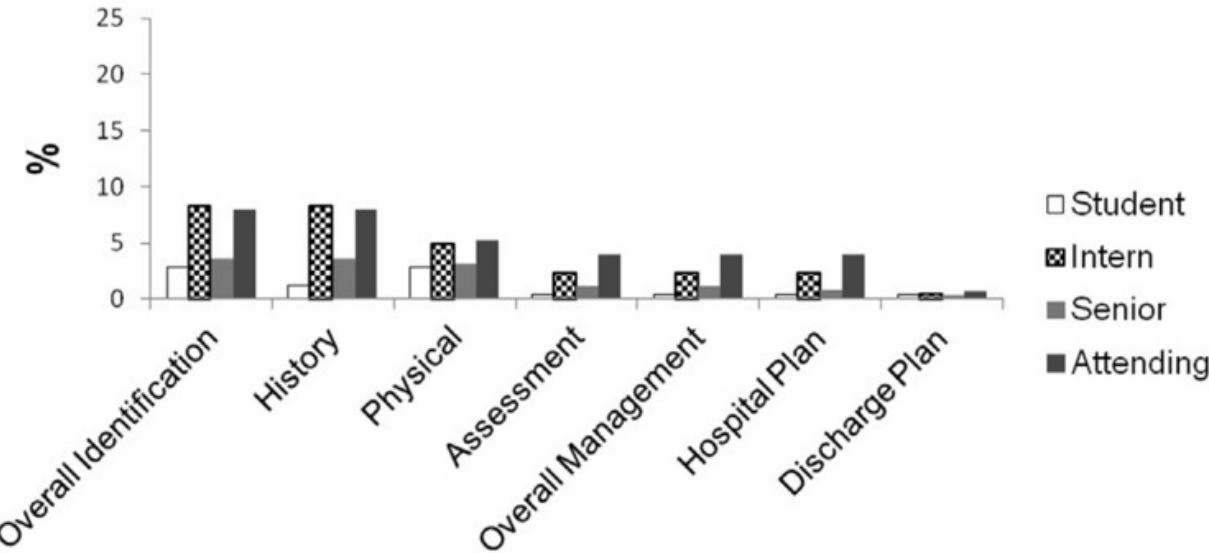
From a flagged number to an active pathway

Recognition without activation is still a missed opportunity

Documented

the gap this figure measures

Activated



<1% discharge-plan documentation — at every training level, student through attending.

Attendings identified overweight/obesity most often of any training level — yet even they addressed it in the hospital plan only about 4% of the time, and in the discharge plan almost never.

A separate 2024 hospitalist cohort found the same pattern: documentation reached 75% for class 3 obesity, yet referrals and discharge prescriptions stayed low even then.

The old pathway asks too much

Comprehensive care traditionally means four to six separate specialty visits — and the families with the greatest need are the most likely to fall away

30–40%

Typical attrition from pediatric weight-management programs — reaching 75–83% in some cohorts

Highest of any group

Minority and Medicaid-covered families have the highest dropout rates of all — despite carrying the greatest treatment need

The guideline caught up before the system did

From watchful waiting to active treatment — but real-world practice is still catching up

2007

Watchful waiting

Lifestyle counseling only — diet, activity, behavior. No defined role for medication or surgery.



2023

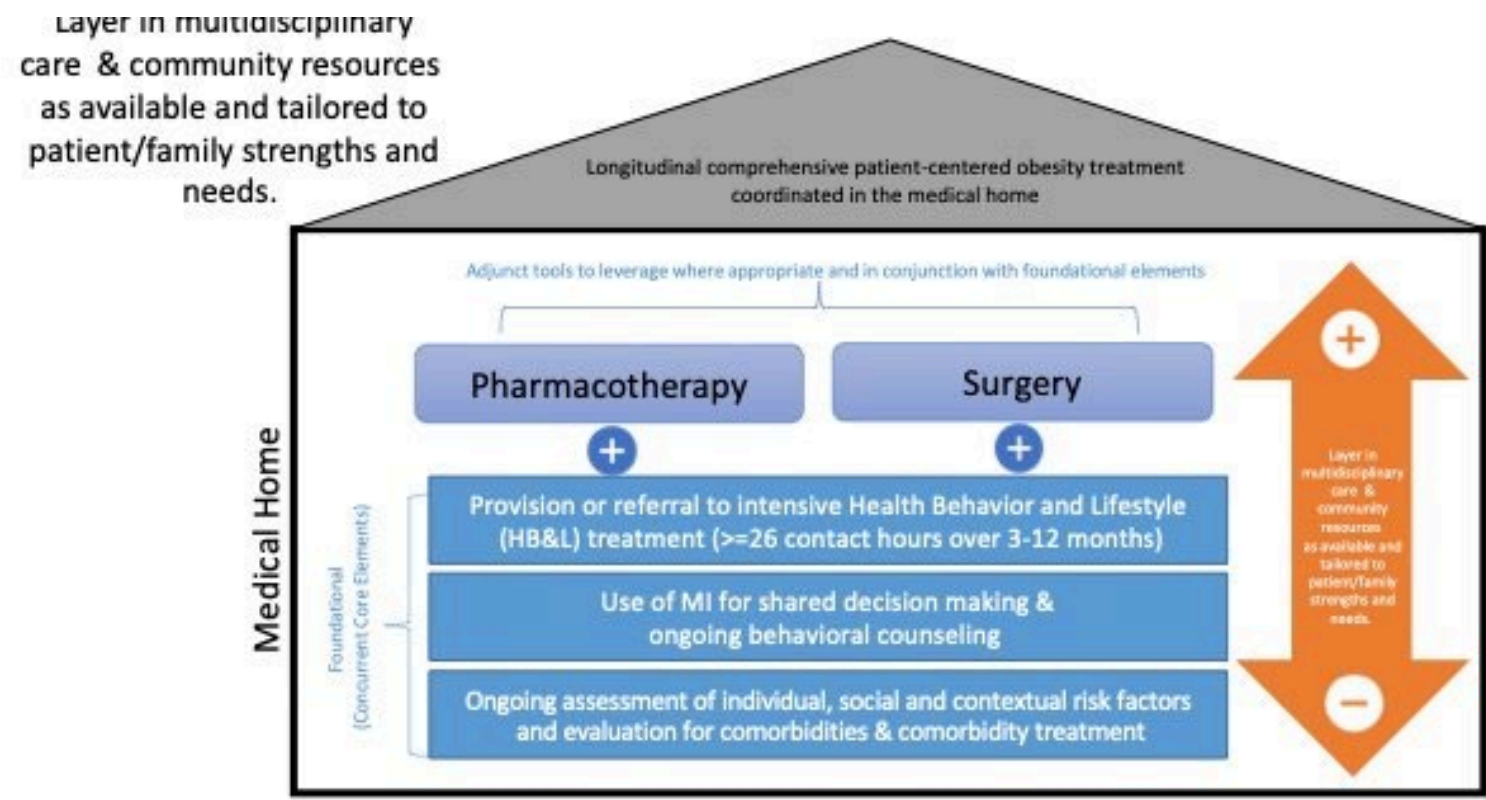
Active treatment

IHBLT plus pharmacotherapy offered at age 12+, and bariatric surgery referral at 13+ for severe obesity.

0.4% of eligible adolescents received a weight-management prescription in the years after the guideline changed — even as prescribing rose 65% relative to before.

What the 2023 guideline actually asks for

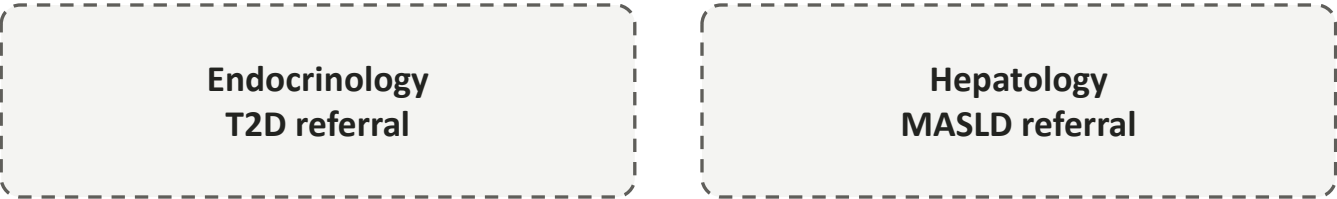
Foundational, coordinated care in the medical home -- pharmacotherapy and surgery are adjunct tools, not separate tracks



Two conditions, one root cause

Type 2 diabetes and fatty liver disease aren't separate diagnoses needing separate specialists

The old pathway



2 separate visits — 2 chances to miss one

The coordinated pathway



36.6% of children with type 2 diabetes also have fatty liver disease — and each condition accelerates the other.

Coordination replaces navigation

One coordinated pathway brings the specialties to the case — instead of asking the family to assemble their own

90%

of children in an integrated obesity clinic had at least one weight-related comorbidity

70%

had two or more comorbidities — yet needed no additional subspecialist visits

>90%

participant retention over 15 months — significantly better than expected for similar programs

One diagnosis, many systems

A single child with obesity may need input from several specialties at once — which is exactly what makes coordination hard, and worth it

Endocrinology

Type 2 diabetes, insulin resistance

Gastroenterology / Hepatology

Fatty liver disease (MASLD)

Cardiology

Hypertension, dyslipidemia

Psychology / Behavioral Health

Depression, anxiety, disordered eating

Pulmonology / Sleep Medicine

Obstructive sleep apnea

Orthopedics

Blount disease, slipped capital femoral epiphysis

Nutrition and primary care remain the coordinating hub across all of them.

Removing the barrier removes the gap

The families most likely to fall through separate-visit models are the families the barriers name directly

Why separate visits fail

- Limited transportation access
- Missed work or school — per trip
- Distance from clinic
- Insurance and coverage type

What one coordinated visit removes

- One trip, not four to six
- One day away from work or school
- One point of contact, one location
- One authorization, one visit

Geography belongs in the chart

Geo-mapped social-determinants data gets pulled into the care plan at the point of care — not left in a research database

25.8% vs 10%

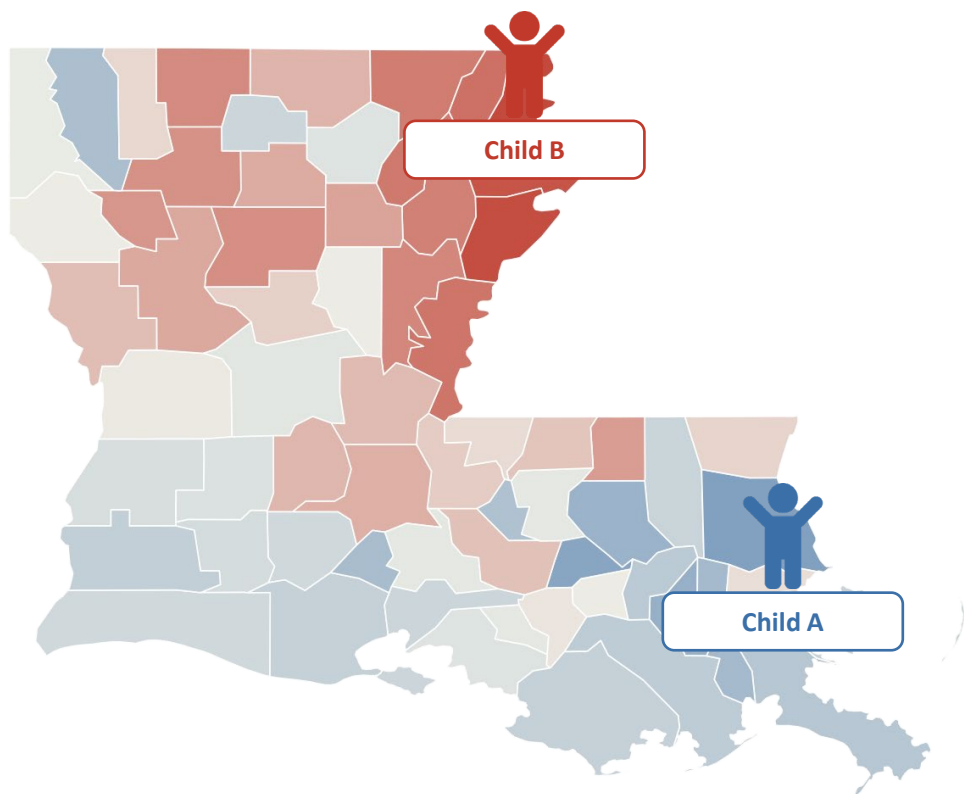
Childhood obesity prevalence, lowest vs. highest Child Opportunity Index neighborhoods

Preventive-care attendance follows the same gradient — 62.2% vs 75.5% up to date on well visits.

The same intake data that flags a child's BMI already contains their address. Pulling neighborhood context into the care plan at that moment — not after a referral, not in a research file — is what turns a percentile into a personalized plan.

Same BMI, different plan

Two children flagged at an identical percentile receive different care plans, because their neighborhoods don't offer the same starting point



Child A — 92nd percentile

Lives near accessible groceries and walkable green space.

Plan: nutrition counseling anchored to accessible groceries, a walking-based activity goal.

Child B — 92nd percentile

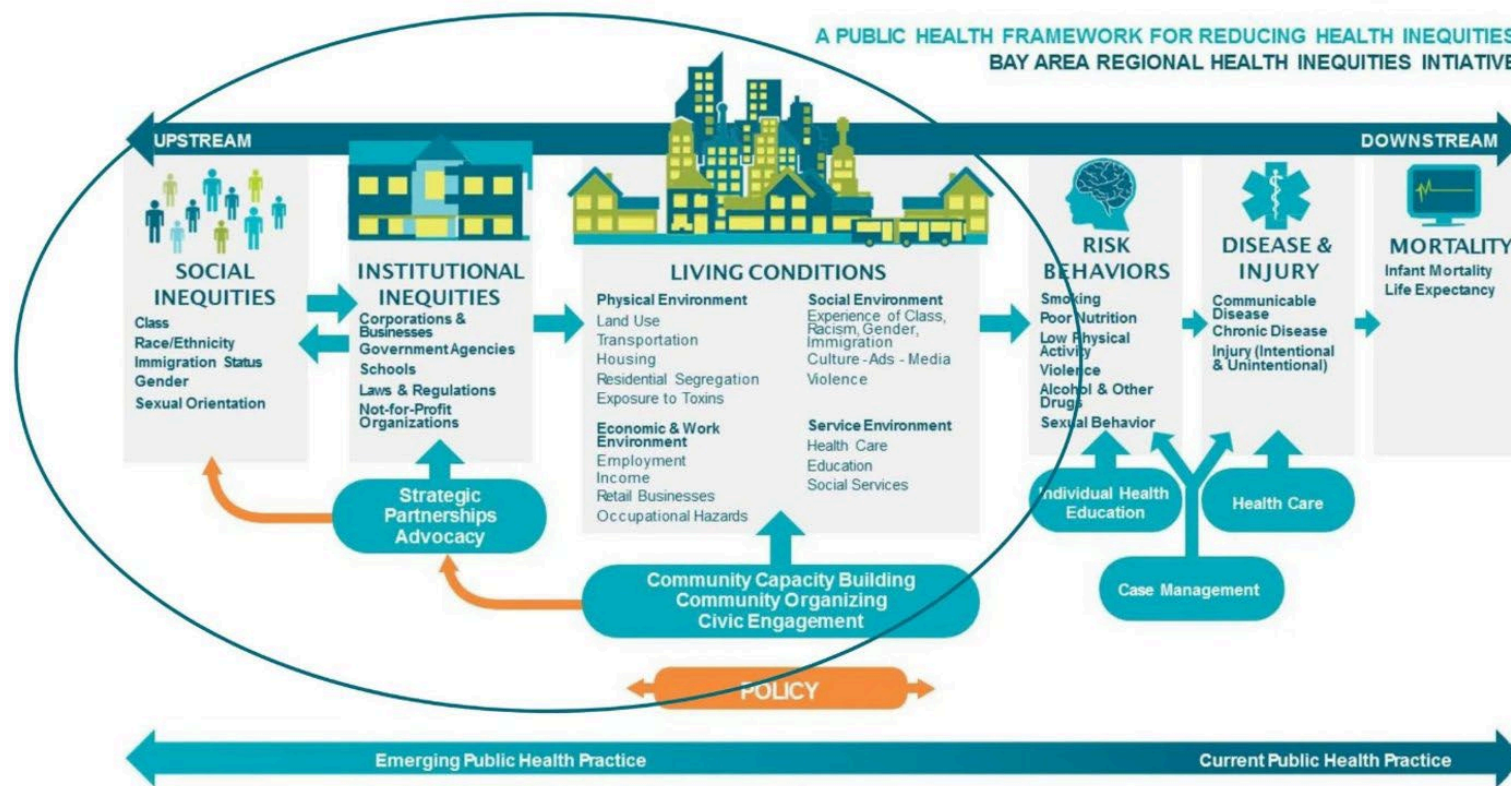
Lives in a food desert with unreliable transportation to clinic.

Plan: same nutrition targets reworked around what's actually accessible, telehealth follow-up, transportation built into scheduling.

Illustrative only — colors represent higher (blue) vs. lower (red) neighborhood opportunity, not actual parish data.

Why upstream matters

Disease and mortality are the downstream endpoints of inequities that start much earlier in the chain



One child's data becomes everyone's map

Every coordinated encounter feeds a shared data layer — the system starts learning from each case, not just treating it



Each input alone describes one child. Layered together across every coordinated encounter in the state, they describe a pattern.

If you were talking, you weren't eating.

One of eight children in inner-city Birmingham. Speed and silence at the table weren't manners — they were strategy.

Long before “food insecurity” had a name in my vocabulary, I lived its psychology — eating for certainty, not composition. “You are what you eat” became something closer to: you are what, and how much, you eat.

Have low-resourced communities caught up to that shift the way food-secure households have? Or are we still asking them to eat like it's just about getting enough?

Not a worse choice, a harder equation

Food-insecure parents aren't choosing worse nutrition — they're solving a harder problem

When the budget allows for choice

Optimizing for nutritional quality. Guided by medical and nutrition advice. Plans meals around what's best.

— *Price is the single most influential factor in food purchasing for food-insecure families*

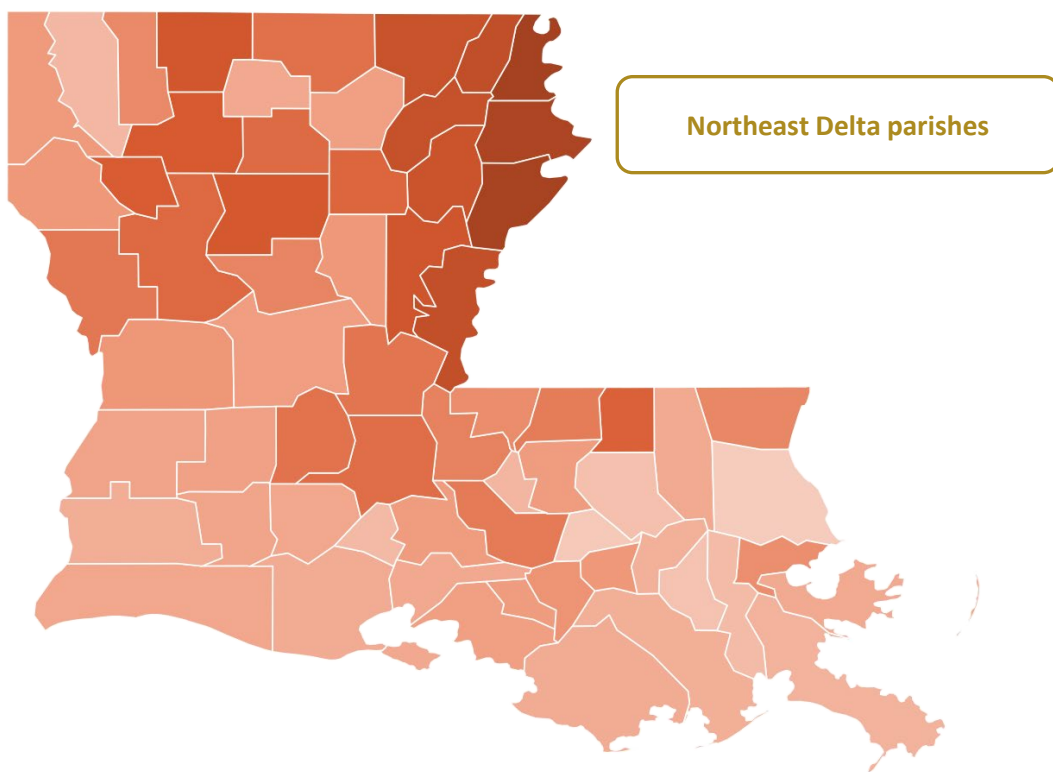
When the budget has to guarantee enough

Optimizing for caloric certainty. Guided by price and the benefit cycle. Plans meals around what stretches furthest — and around making sure the child never feels hungry.

— *Food-insecure parents show significantly more pressuring feeding behavior, encouraging a child to finish what's available*

Where the map turns red

Layering health outcomes against neighborhood-opportunity data surfaces hotspots — specific Louisiana communities where limited resources produce outsized negative outcomes



When you lay resource access against outcome severity, the map doesn't light up randomly — it lights up where the evidence already told us to look.

A real hotspot layer would combine clinical, biomarker, and neighborhood-opportunity data — the same approach validated for predicting both obesity risk and preventive-care attendance.

Illustrative only — not actual published parish-level data.

The data doesn't just describe the problem — it targets the response

Hotspot data directs where new screening sites, mobile clinics, and food-access investment actually get placed

Guessing

- Resources spread evenly across the state
- Screening sites placed by convenience, not need
- Investment follows population size, not burden

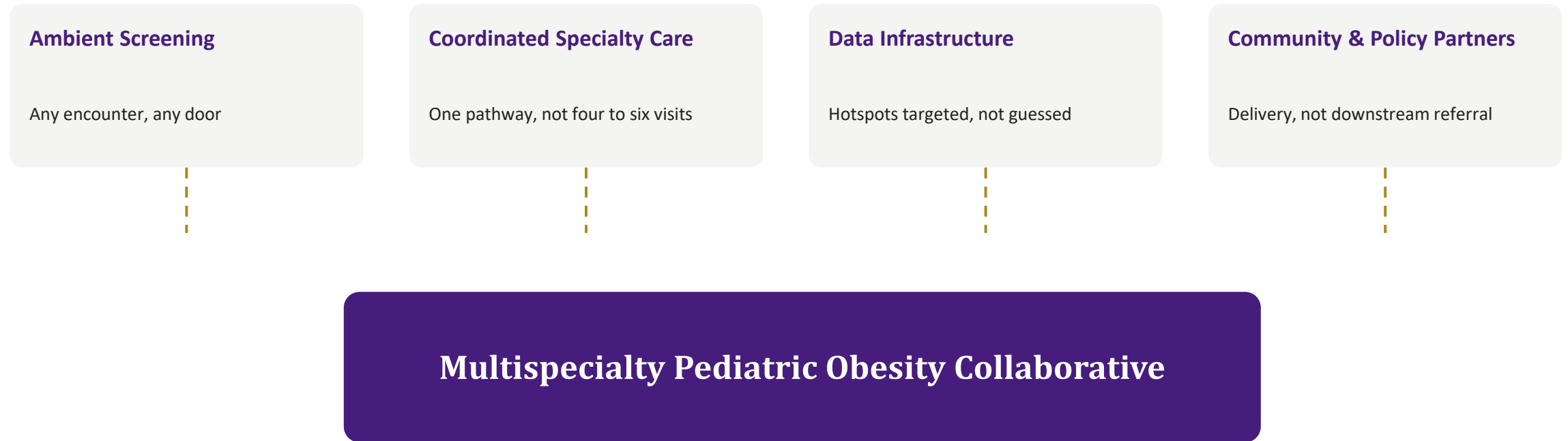
Targeting

- Resources concentrated where the map is darkest
- Mobile clinics and screening sites placed at hotspots
- Investment follows documented burden, not guesswork

Counseling utilization for pediatric obesity varies significantly by rurality and insurance type — the same gap a targeted, hotspot-driven model is built to close.

Build the model, not another referral line

The architecture from Acts I through III, assembled into one standing collaborative — not four separate ideas



This is the concrete ask: not a new idea, but the standing infrastructure that makes everything in the last three sections permanent instead of a pilot.

A Louisiana Pediatric Obesity Collaborative

Proposed -- a research and improvement collaborative among Louisiana's pediatric health systems and research institutions

**Manning Family
Children's**

Pediatric care

Ochsner Children's

Pediatric care

**Our Lady of the Lake
Children's**

Pediatric care

LSU Health Shreveport

Academic medical center

**Pennington
Biomedical Research
Center**

Research

Modeled on the Michigan Child Health Equity Collaborative (Mi-CHEC) -- a research and quality-improvement collaborative among Michigan's three largest pediatric health systems.

Considerations for Implementation

Leadership commitment, and four practical barriers to plan for

Leadership commitment

How is this linked to the hospital's strategic plan? Can it connect to an already-sustainable hospital effort? What are the political winds -- national, state, local, and hospital?

Data Fragmentation Barriers

Fragmented data across BMI, school, and community systems hindered effective obesity implementation.

Financial Challenges

Short-term payment models conflicted with the long-term population-health gains needed for project success.

Community Engagement Needs & Policy

Sustained trust-building and culturally responsive engagement were resource-intensive but essential.

Workforce Readiness

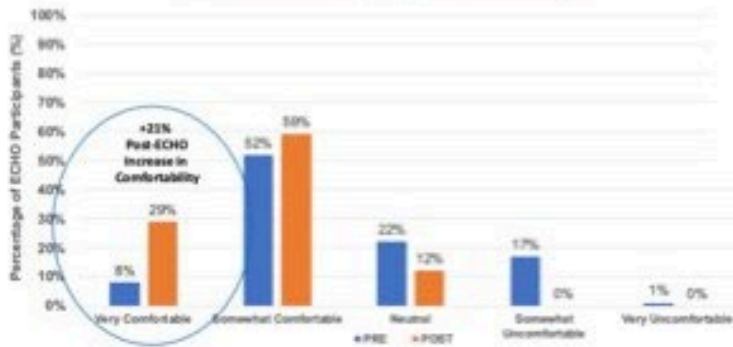
Training clinicians in stigma-free, family-centered approaches was critical for effective implementation.

Training the workforce: Project ECHO

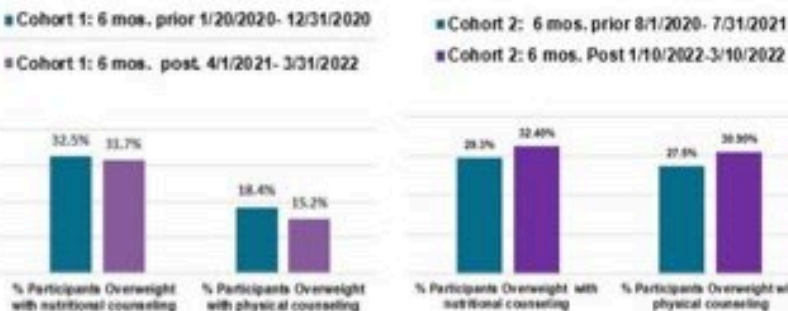
Tele-mentoring measurably increases provider comfort managing pediatric obesity



Figure 1a: How comfortable are you managing a child with overweight or obesity?



PROJECT ECHO OBESITY: change in counseling by cohort for Caresource patients

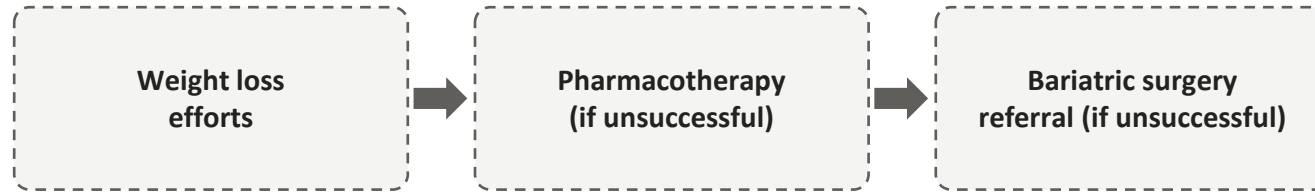


Eneli IU, Tindall A, et al Pediatrics. 2025 Apr 1;155(Suppl 1):e2024069159D.
Eneli IU, et al. Clin Pediatr (Phila). 2018 Aug;57(9):1069-1079.
Funded Ohio Insurance Market

The default pathway was never validated

Most programs are structured by default, not by evidence — and pediatric biology argues for earlier action, not later

The default pipeline



Comorbidity screening triggered late, and only in some programs.

Why: reimbursement built this pipeline, not evidence

Obesity coded alone: rarely reimbursed. A comorbidity coded as primary: **reimbursable.** Surgery: the one pathway with clearly defined billing codes from the start.

Comorbidity screening + weight management in parallel, from visit one → coordinated multispecialty care → surgery as one tool among several

61%

of pediatric obesity programs are run within a single specialty division

Until GLP-1s, obesity management itself was rarely a billable endpoint — a program needed a diagnosed comorbidity, or a surgical candidate, to get paid. The pipeline is a byproduct of that.

Why this isn't a cost center

Coordination redeploys existing specialist capacity; catching disease earlier avoids the far more expensive cost of treating it once established

Redeployment, not addition

90% of children in an integrated clinic had a comorbidity;
70% had two or more — yet required **zero** additional subspecialist visits.

Same specialists. Less redundant intake. More of the patients they're actually needed for.

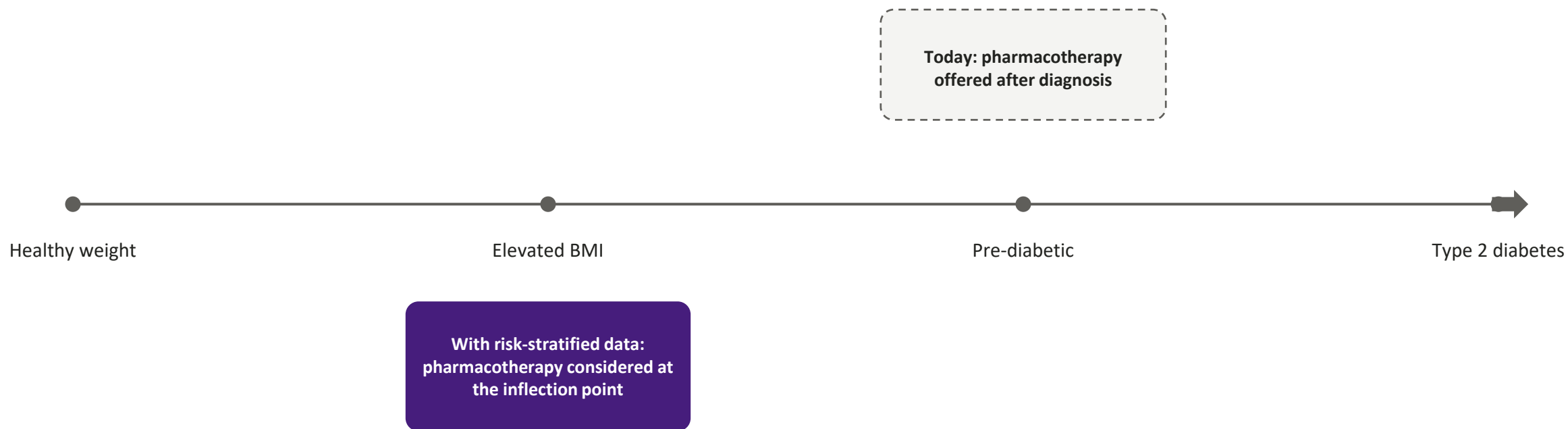
Delay, not just treatment

43 vs. 26 months. Children on metformin with weight stabilization took significantly longer to progress from prediabetes to type 2 diabetes than those who weren't.

Pediatric-specific evidence supports delay more strongly than outright prevention — but years of delayed disease progression is still a significant clinical and financial win.

What the infrastructure makes possible

The same data layer that finds hotspots also enables risk-stratified, precision care — timed to prevent progression, not just manage it



Precision, biomarker-informed risk stratification is what lets a system act at the inflection point — rather than waiting for a diagnosis that confirms disease has already progressed.

You can't prescribe your way out of a food desert

Clinical care hits a ceiling without food access — but food-access interventions embedded in clinical care are no longer theoretical

88%

of produce-voucher benefits redeemed in a pediatric pilot program embedded directly in primary care

Significant improvement

in liver enzyme levels among voucher-group participants — the same comorbidity pathway (MASLD) this deck has already made the case for coordinating around

Effects on food security and engagement are consistently positive across studies; effects on weight itself remain mixed — which is consistent with this deck's argument that weight is not the only, or even the best, measure of success.

Community partners, not downstream recipients

Community partners do two distinct jobs in this model — not one generic role

Job 1 — Extend ambient screening beyond clinical walls

Schools

Screening touchpoints, meal programs

Community Health Fairs & WIC Visits

Additional doors where a flagged BMI can trigger the same pathway as a clinical visit

Job 2 — Deliver on what the data identifies

Food-Access Partners

Produce prescription delivery into the hotspots the data layer flags

Community Health Workers & Trusted Messengers

Navigation for families wary of the medical system; faith and civic reach into hard-to-access neighborhoods

Policy as sustainability, not just funding

Reimbursement is the single biggest threat to permanence — and it's solvable, because one state has already done it

The gap

Only a handful of states provide Medicaid coverage for all components of comprehensive pediatric obesity treatment.

Proven coordinated-care models stay fragile pilots instead of becoming standing infrastructure — not because they don't work, but because they aren't paid for.

The precedent

Missouri, 2021: first state Medicaid State Plan Amendment covering pediatric lifestyle services, including up to 72 hours of behavioral therapy.

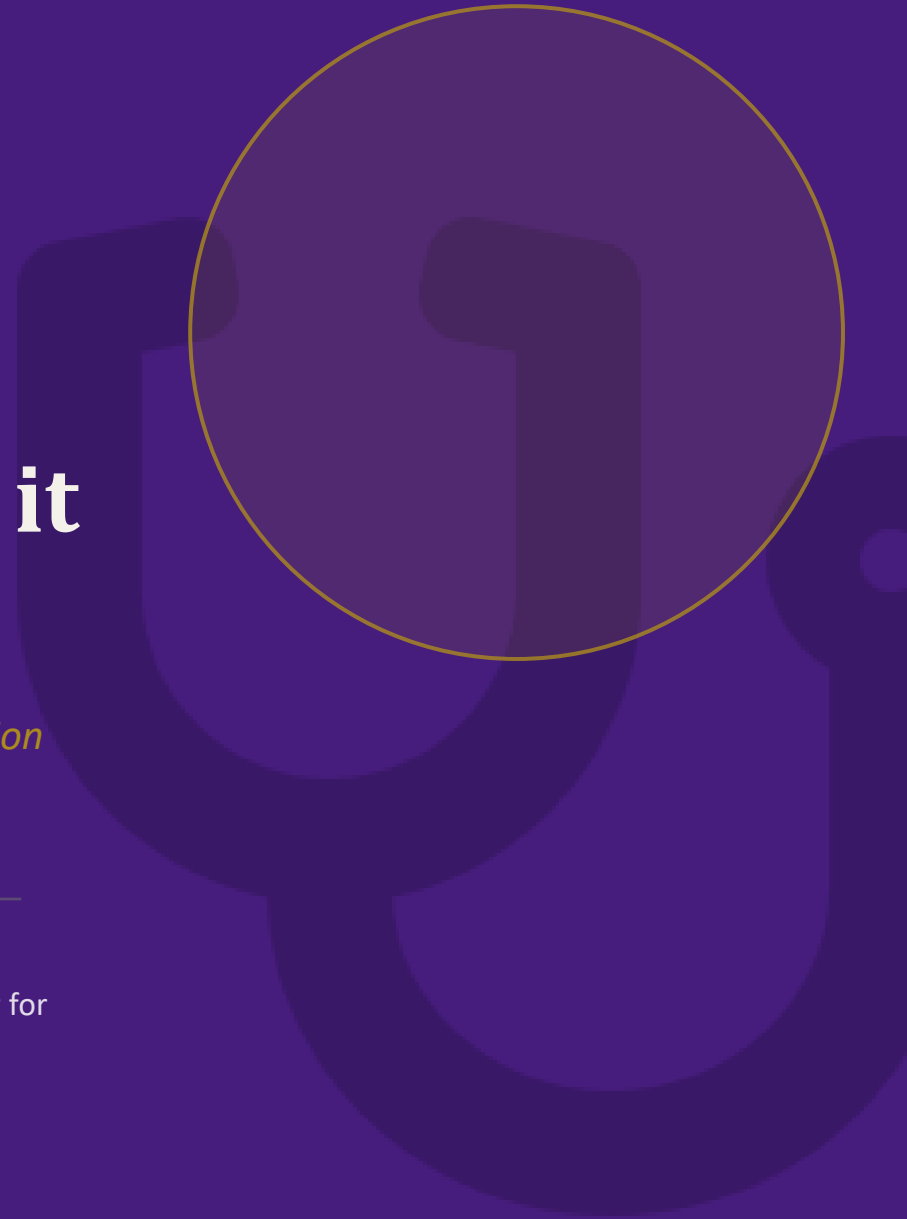
This has already been done once. Louisiana doesn't need to invent the mechanism — it needs to adopt it.

This time, she doesn't have to read it off a screen.

Same visit. Same 15-year-old. Same finding — but this time it triggers same-day activation into the coordinated pathway, and we're the ones who tell the family, not the chart.

An SDOH-informed care plan built around where he actually lives — his neighborhood flagged in the data layer for targeted investment — one coordinated visit, not a referral he has to navigate alone.

Based on a real clinical encounter; identifying details altered.



Why this travels beyond Louisiana

The architecture doesn't depend on anything unique to this state — it depends on encounters, records, and the will to coordinate

Ambient Screening

Any encounter, any door

Coordinated Specialty Care

One pathway, not four to six visits

Data Infrastructure

Hotspots targeted, not guessed

Community & Policy Partners

Delivery, not downstream referral

Multispecialty Pediatric Obesity Collaborative

What it requires: primary care encounters, an EHR, and a willingness to link data across sectors. **Not Louisiana.**

What this asks of each of you

Forty minutes of evidence, converted into three specific, near-term actions

Clinicians & Educators

- Adopt the ambient-screening trigger now — any encounter, any door
- Refer into the coordinated pathway as it comes online

Researchers & Policymakers

- Build the data infrastructure that targets hotspots, not guesswork
- Pursue the Missouri-style Medicaid reimbursement pathway

Community Partners

- Extend screening beyond clinical walls — schools, health fairs, WIC visits
- Deliver on what the data identifies — food access, trusted-messenger navigation

Two rooms. One question.

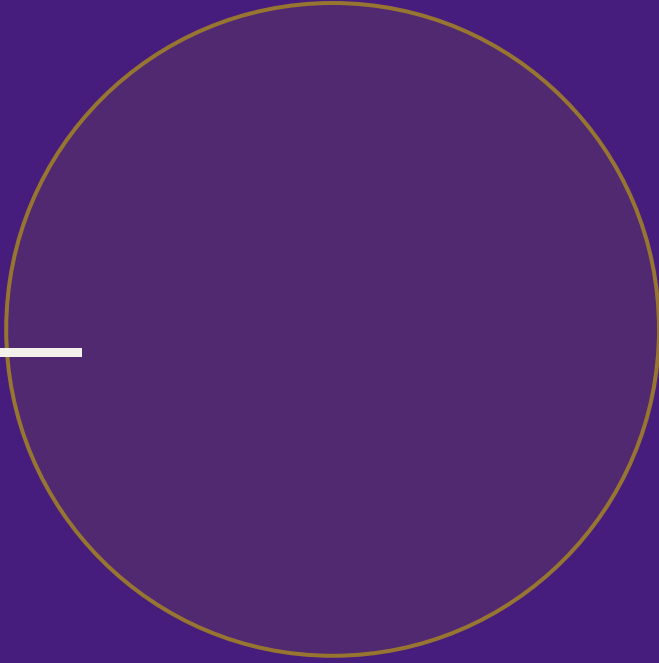
A chart note a mother found by accident. A dinner table where speed meant certainty. Different rooms, decades apart — asking the same thing.



Does the system notice — or does the family have to find out alone?

Kids Grow Healthy when the system answers that question before they ever have to ask it.

**Obesity care doesn't need a special visit.
It needs a system that notices every time —
wherever a child walks through the door.**



KIDS GROW HEALTHY

The Future of Pediatric Obesity Care — From Evidence to Scalable Impact | Dedrick Moulton, MD

Thank You



Q&A

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Thank you for investing in our children's future!