



How to Operationalize Transactional Data for Better Outcomes

Dave Brown, MBA

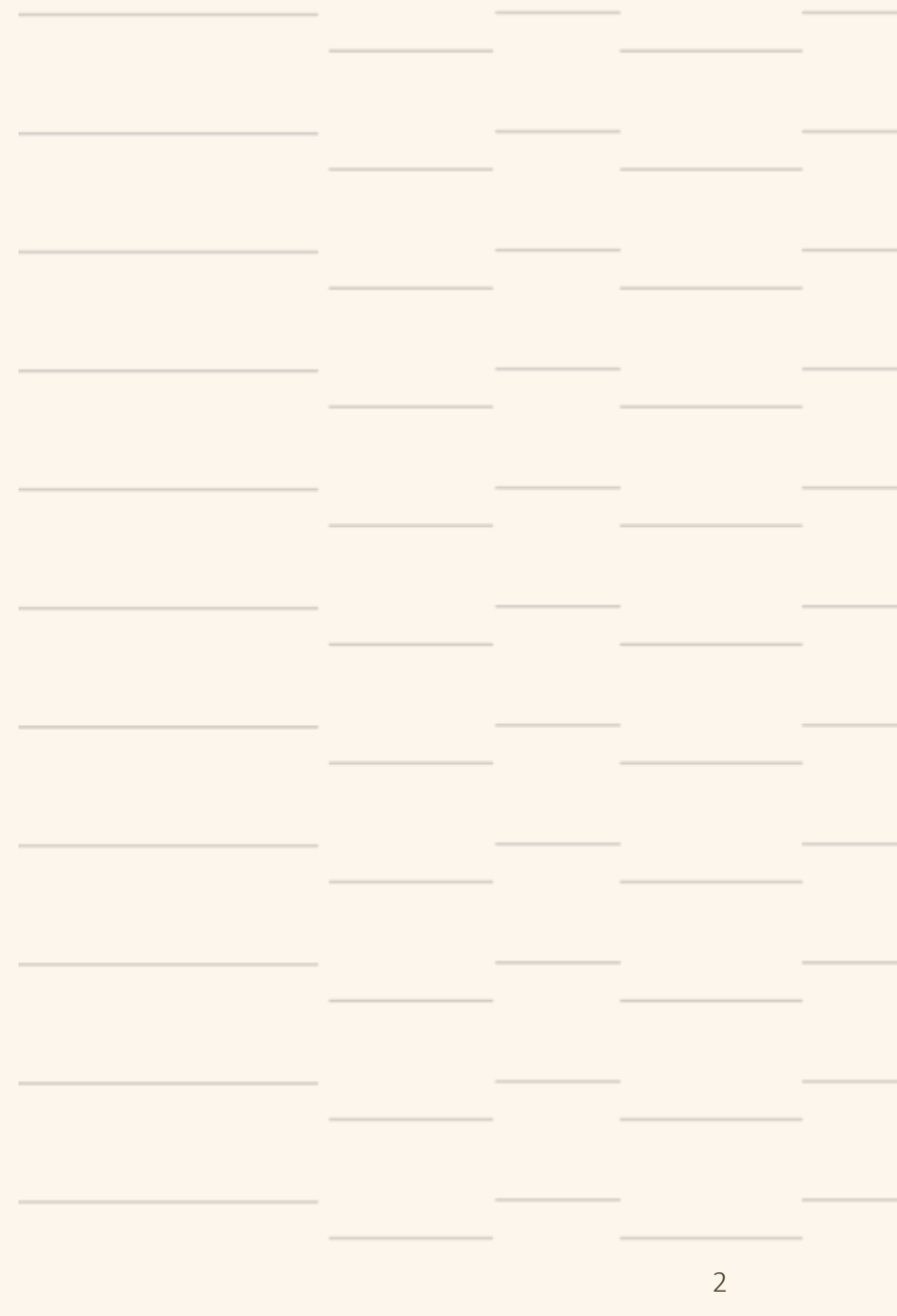
Chief Information Officer

Monarch

Leadership
Summit

Agenda

1. Introductions
2. About Monarch
3. PatientPing and Monarch
4. Use Case
5. Population Health Analytics
6. Building Data Foundations
7. Discussion



PRESENTER

Dave Brown, MBA



Chief Information Officer, Monarch

Dave Brown is Monarch’s Chief Information Officer. He has nearly three decades of progressive IT leadership and transformative adoption of technology experience across healthcare, insurance and financial services industries and has led teams in the development of use-case driven outcomes, focused application development and strategic IT deliveries.

As Chief Information Officer, Dave is responsible for implementing a dynamic and responsive IT strategy in support of Monarch’s vision to help people of all abilities thrive in their homes and communities. He provides strategic vision and leadership in the development of Monarch’s population health analytics services, enabling a data-driven approach to healthcare delivery for the betterment of the people we support.

Dave received a Bachelor of Science in Economics degree from the University of Wisconsin – Madison. He also holds a Master of Business Administration from Cardinal Stritch University in Milwaukee, Wisconsin.

He and his wife Cindy live in Matthews, North Carolina, and have three daughters.

About Monarch

Who We Are

Established in 1958, Monarch is a leading provider of behavioral health services in North Carolina, serving nearly 28,000 people annually.

Monarch has received The Gold Seal of Approval® from The Joint Commission, indicating the alignment with the highest quality standards in health care delivery.



About Monarch



Our Mission

Monarch provides hope, promotes wellness, and empowers individuals and families impacted by mental illness, substance use disorders, intellectual and developmental disabilities, and traumatic brain injury.

Our Vision

Monarch envisions a world where all people can achieve their unique potential.

About Monarch



Our Values

Integrity: We value ethical and transparent behavior. We believe in honest and open communication that fosters trust and ensures we are accountable to each other and the people we support.

Compassion: We believe in treating all people with basic human kindness, understanding that Monarch is a stronger organization when people are caring and compassionate toward each other.

Respect: We value diversity in all its forms and work to ensure the inclusion of all people. We respect the rights and value the unique contributions of each individual.

Excellence: We are committed to providing exceptional customer service and mission-driven care in a safe, healthy and respectful environment.

Courage: We believe there is strength in having the courage to try and fail and in asking for help when assistance is needed. We value the ownership of mistakes and support the change and growth that can result.

Innovation: We value learning, changing and charting the course for better behavioral health care for all. We commit to guiding operational performance through data driven leadership.

Monarch... by the numbers

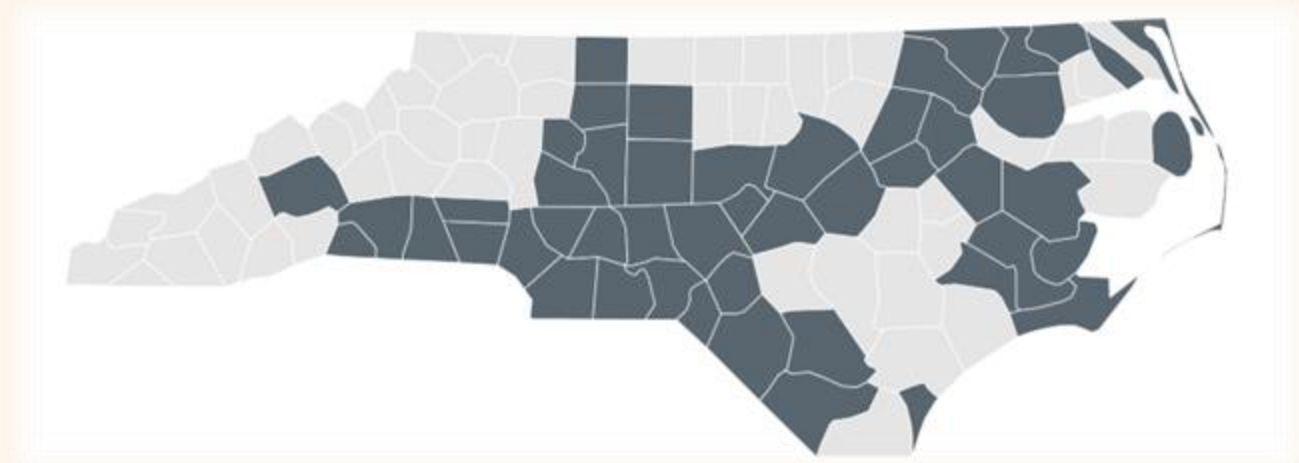
Fiscal Year 2023

- ✓ Total number of people served: **27,373**
- ✓ People who received BH services: **26,544**
- ✓ People who received LTSS services: **1,055**
- ✓ People who received Residential services: **516**

- ✓ Number of PWS encounters: **427,025**
- ✓ Number of counties served: **100**
- ✓ Monarch served folks from **957** different zip codes

- ✓ Children served, age 17 and under: **3,745**

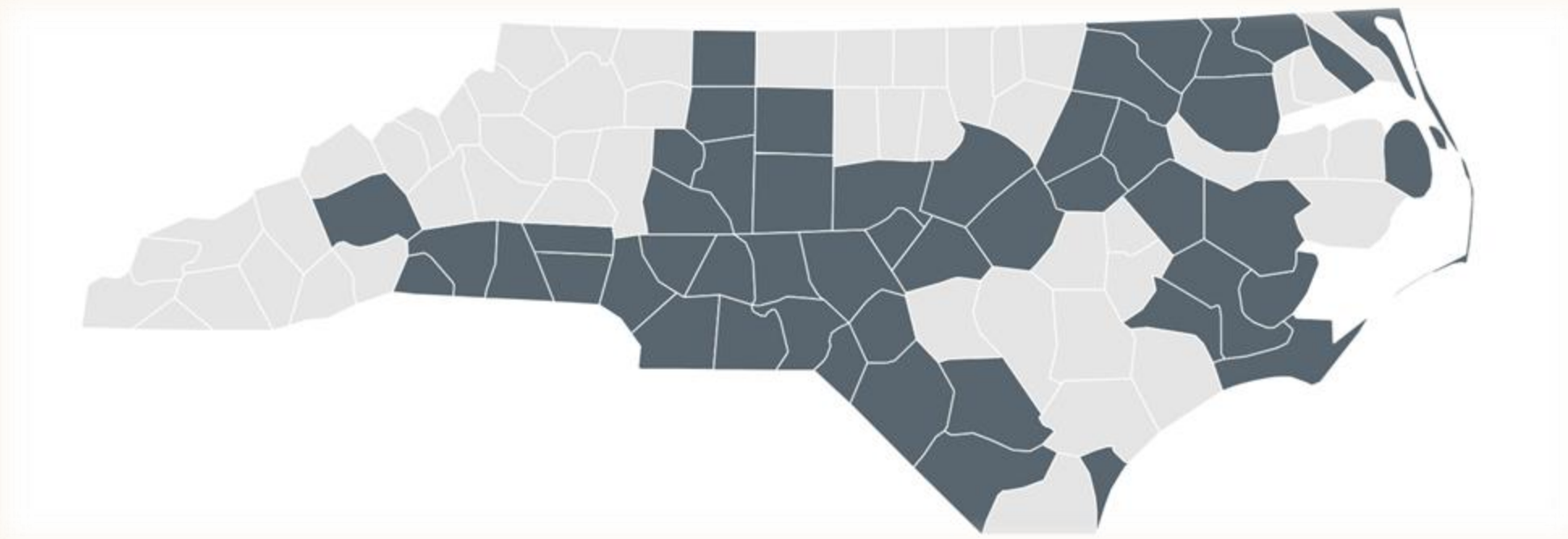
Geography Presence



- Revenue Last Fiscal Year = \$88M
- Current Fiscal Year Budget = \$98M

Monarch... where we are

- ✓ Monarch provides innovative, life-changing services at more than 186 locations in 49 North Carolina counties.
- ✓ We serve people from all 100 North Carolina counties.



Business Operations at a Glance

Electronic Health Record (EHR) Statistics

- ✓ Total number users: **1,455**
 - ✓ Therapists: **52**
 - ✓ Providers: **38**
 - ✓ Nurses: **87**
 - ✓ LTSS staff: **836**
- ✓ Total Services: **1,856,725**
- ✓ Total Prescriptions: **186,494**
- ✓ Total Claims Processed: **548,029**
- ✓ Claims processed electronically: **93.75%**
- ✓ Total Payers: **109**
 - ✓ Medicaid (13) **56.86%**
 - ✓ State - Managed Care Organization (6) **27.65%**
 - ✓ Medicare (20) **6.52%**
 - ✓ Commercial Carriers (69) **5.16%**
 - ✓ Self-pay **3.81%**



“Behind each data point is someone’s mother, father, sister, brother, wife, husband, partner, daughter, son, friend”



Monarch and PatientPing

- ✓ Certified Community Behavioral Health Clinic (CCBHC)
- ✓ SAMHSA grant award September 27, 2018 – sole N.C. agency granted
- ✓ Expand both the depth and breadth of mental health services in Stanly County through the CCBHC model
- ✓ Stronger, more comprehensive addiction and mental health services
- ✓ Intentional connection between behavioral and physical healthcare

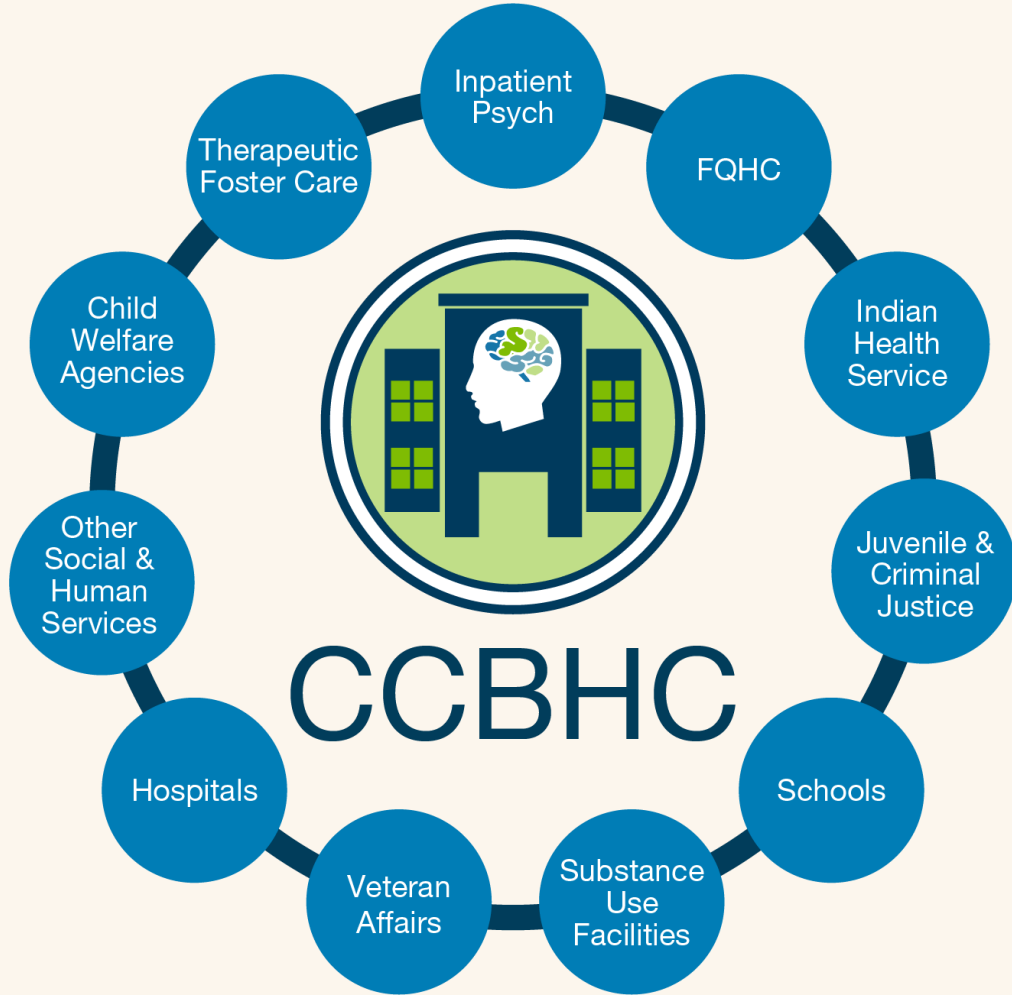
CCBHC Community Benefits

- ✓ Addition of Opioid Treatment Services – during the summer of 2018, Stanly County had the state’s highest rate for all opioid overdoses that result in emergency room visits
- ✓ Expanded capacity and new jobs: 12+ new positions funded as part of grant
- ✓ Projected impact on 2,000 individuals during the 2-year grant.

Comprehensive Community Care is Key



Community Connections



PatientPing – Early Days

- ✓ By February 2020, the Stanly BH-OP clinic goes live using PatientPing
- ✓ Monitoring **1,634** individuals who received care at the Stanly clinic in the prior **12** months
- ✓ During a single month, Monarch received **426** pings identifying discrete Hospital and ED visits, admissions and discharges on these individuals.



Use Case – Specific Need to General Benefit

Tracking hospitalization events

cbh3.crediblebh.com/webforms/questions.asp?formbuilder=1&category_id=73...

Date PCP updated: [calendar icon]

Details of updated PCP: [text input]

If the PCP was not updated please explain why: [text input]

Person Centered Plan updated?
 Yes
 No

DISCHARGE

Summary of discharge instructions provided: [text input]

Discharge instructions implemented (include date/names): [text input]

Diagnosis: [text input]

Date medication reconciliation completed: [calendar icon]

If new diagnosis received, has it been entered in to the record?
 Yes
 No
 Not Applicable

** Indicates required field*

Notes: [text area]

cbh3.crediblebh.com/webforms/questions.asp?formbuilder=1&category_id=73...

Were the Hospital Records Received?*
 Yes
 No

CRISIS PLAN

Date discharge meeting held with person (residential only): [calendar icon]

Date of team meeting to review crisis plan: [calendar icon]

Crisis Plan updated?
 Yes
 No

Date crisis plan updated: [calendar icon]

Details of updated Crisis Plan: [text input]

If the plan was not updated please explain: [text input]

PERSON CENTERED PLAN

Date PCP updated: [calendar icon]

Details of updated PCP: [text input]

If the PCP was not updated please explain why: [text input]

Person Centered Plan updated?
 Yes
 No

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Is this an outpatient commitment?(if yes, form will be added)*
 Yes
 No

Insurance*
 MCO/PHP Medicaid
 Medicare
 Medicare Supplement
 Commercial Insurance
 No Insurance/State Insurance
 Unknown Insurance

Reason for Admission *
 Medical Admission
 Mental Health Admission
 Unknown

Facility Name: [text input]

If 'Other' was selected, please specify: [text input]

Admission Type: *
 Emergency Room Visit
 Inpatient
 Observation
 Skilled Nursing Facility
 Unknown

Voluntary/Committed:
 Voluntary
 Involuntary

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Hospital

Hospital Tracker (Click to open a new tab for SOP)

Date of Birth [text input]

Credible Client ID [text input]

Medicaid Number [text input]

External (Echo) ID [text input]

This is a duplicate hospital tracker

New or Established Patient?*
 New
 Established

Source of information?*
 Hospital
 Infina System
 Patient Ping
 Patient Report

Admission Date* [calendar icon]

Expected Discharge Date [calendar icon]

Actual Discharge Date [calendar icon]

Discharged - Date Unknown

Use Case – Specific Need to General Benefit

Internal Reporting – Tracking 7-day Follow-up

Month/Year		Apr - 23			May - 23			Jun - 23		
HLOC Program	Hospital Tracker Location	# Hospital Trackers	# Completed 7-Day F/U	% Completed 7-Day F/U	# Hospital Trackers	# Completed 7-Day F/U	% Completed 7-Day F/U	# Hospital Trackers	# Completed 7-Day F/U	% Completed 7-Day F/U
ACTT	BH-Forsyth	1	1	100%	1	1	100%	2	1	50%
	BH-Stanly	1	0	0%	1	1	100%	0	0	0%
Community Support Team	BH-Robeson	0	0	0%	0	0	0%	1	0	0%
Outpatient	BH-Cleveland	0	0	0%	0	0	0%	1	0	0%
	BH-Forsyth	0	0	0%	1	0	0%	0	0	0%
	BH-Stanly	0	0	0%	1	0	0%	0	0	0%
	BH-Wilson	0	0	0%	1	1	100%	0	0	0%
Peer Bridger	PSR-Forsyth	0	0	0%	1	0	0%	0	0	0%
	BH-Forsyth	0	0	0%	1	0	0%	0	0	0%
	BH-Meck	0	0	0%	1	1	100%	0	0	0%
Psychiatric Svcs/Med Mgmt	BH-Stanly	0	0	0%	0	0	0%	1	1	100%
	BH-Cleveland	0	0	0%	0	0	0%	1	0	0%
	BH-Guilford	3	1	33%	1	0	0%	0	0	0%
Total		5	2	40%	9	4	44%	6	2	33%

PatientPing - Monarch Roadmap

- ✓ Care Management Agency designation – Go-Live December 2022
- ✓ Expand Agency Roster
- ✓ Auto-generate Hospital Tracker instance, attach to chart, alert Clinical to follow-up
- ✓ Incorporate historical “Ping” data into internal analytics framework
- ✓ Align with NC HealthConnex – NC HIEA
- ✓ Material component of Monarch’s overall Population Health strategy.



Population Health Strategy - Top to Bottom

Prospective Payment Systems (PPS) and *Value-Based Programs* require...

↳ *Care Management*, which requires...

↳ *Population Health Management*, which then requires...

↳ *Risk Stratification* and *Care Coordination* which ultimately requires...

- ✓ Mastering Clinical, Operational and Financial Data...
- ✓ Into Practical and Purpose-driven Information...
- ✓ That informs and guides a Data-driven Organization...
- ✓ To maximize Care Delivery Outcomes.

PatientPing

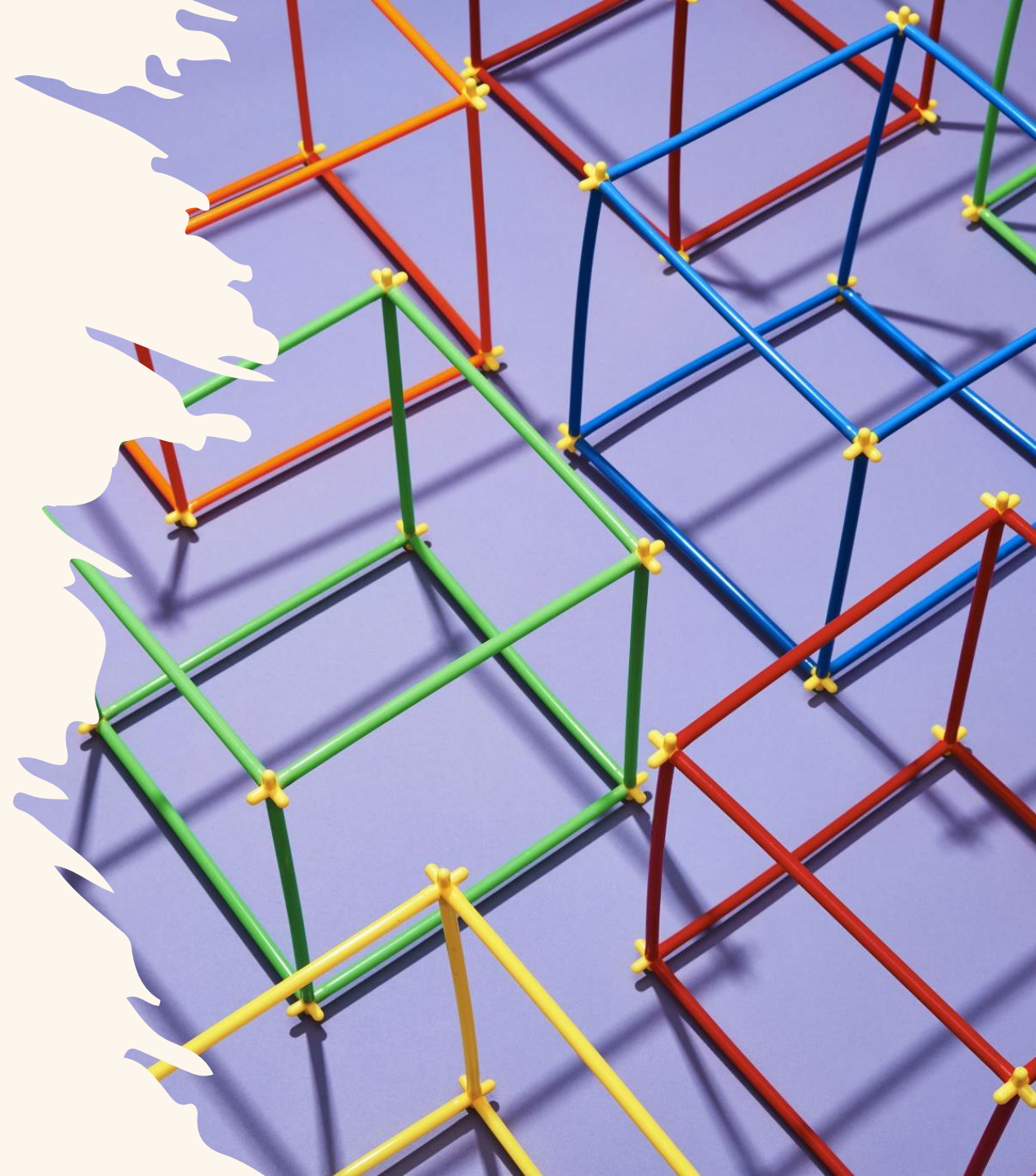
CCBHC to CMA to Entire Agency

- ✓ Moving from a disconnected environment...
- ✓ To a very connected environment...
- ✓ Integrating Social Determinants of Health into the model...
- ✓ Gets us to a more personalized, holistic engagement model for overall health and well-being...
- ✓ Which requires a framework for Strategic Operational Analytics.



Building Data Foundations

*A Framework for
Strategic Operational Analytics*



How we do what we do...

Changing work environments and new paradigms

Rapid digitization of workflows

Managing projects using DevOps principles

What is “Work”

Process improvement strategies

Architectural abstraction

Having a plan.

Changing work environments and new paradigms

- ✓ The world has changed
- ✓ Work environments have changed
- ✓ Team dynamics have changed

... and therefore...

- ✓ Personal relationships and bonding behaviors have changed.



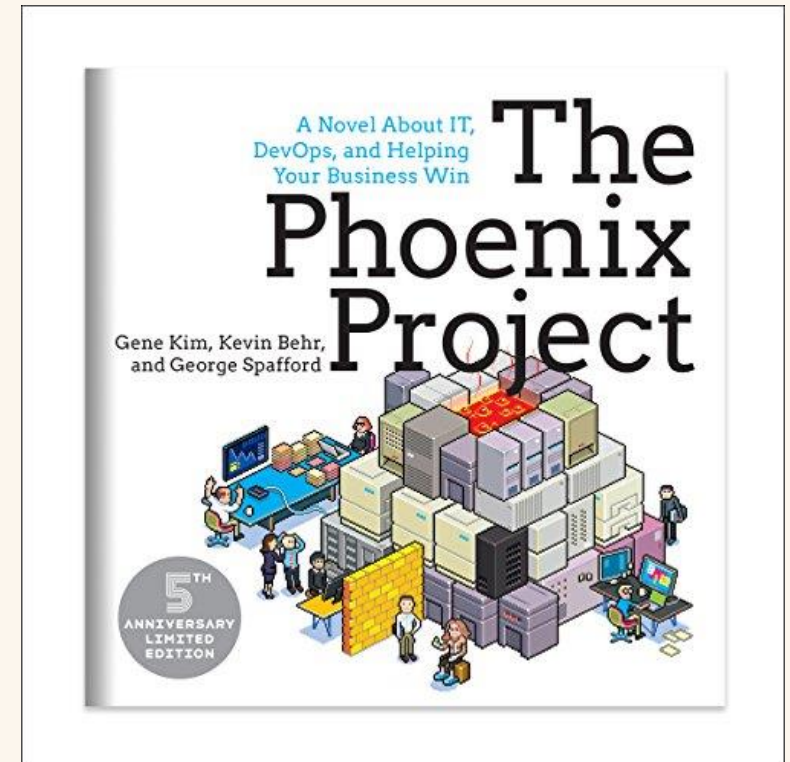
Rapid digitization of workflows

- ✓ Transition to telehealth services striking and enduring
- ✓ Communications moving radically digital
- ✓ Event duration collapsing
 - ✓ Consumer attention
 - ✓ Deliverable timelines.



Managing projects using DevOps principles

- ✓ IT partners with Operations
- ✓ Teams cross departmental boundaries
- ✓ Projects become agile and incremental
- ✓ Communication radically improves
- ✓ Better “product” outcomes.



What is “Work”



Business Projects

IT projects the business directly supports through approved, funded, prioritized work, and ideally link to strategic and/or tactical business initiatives



Internal Projects

All project and task activities carried out by IT resources in support of on-going systems growth and maintenance
– everything that keeps IT up and running



Operational Change

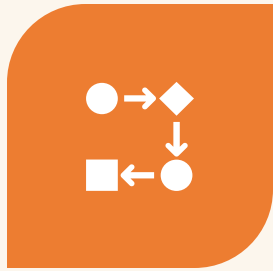
All IT ‘People, Process & Technology’ activities that are in support of deploying and maintaining systems
– how ‘change’ is managed and deployed into production



Unplanned Work

Any work effort that takes us away from planned work
- business and internal projects, as well as IT Ops

Process improvement strategies



CENTRALIZE



STANDARDIZE



OPTIMIZE



TRANSFORM

Architectural abstraction

- ✓ Encapsulation of behavior
- ✓ Decoupling of software elements
- ✓ More self-contained modules
- ✓ Easier application extension
- ✓ Easier refactoring
- ✓ Communication of behavior rather than implementation
- ✓ Greater innovation, as engineers create new systems and technologies without having to start from scratch each time.

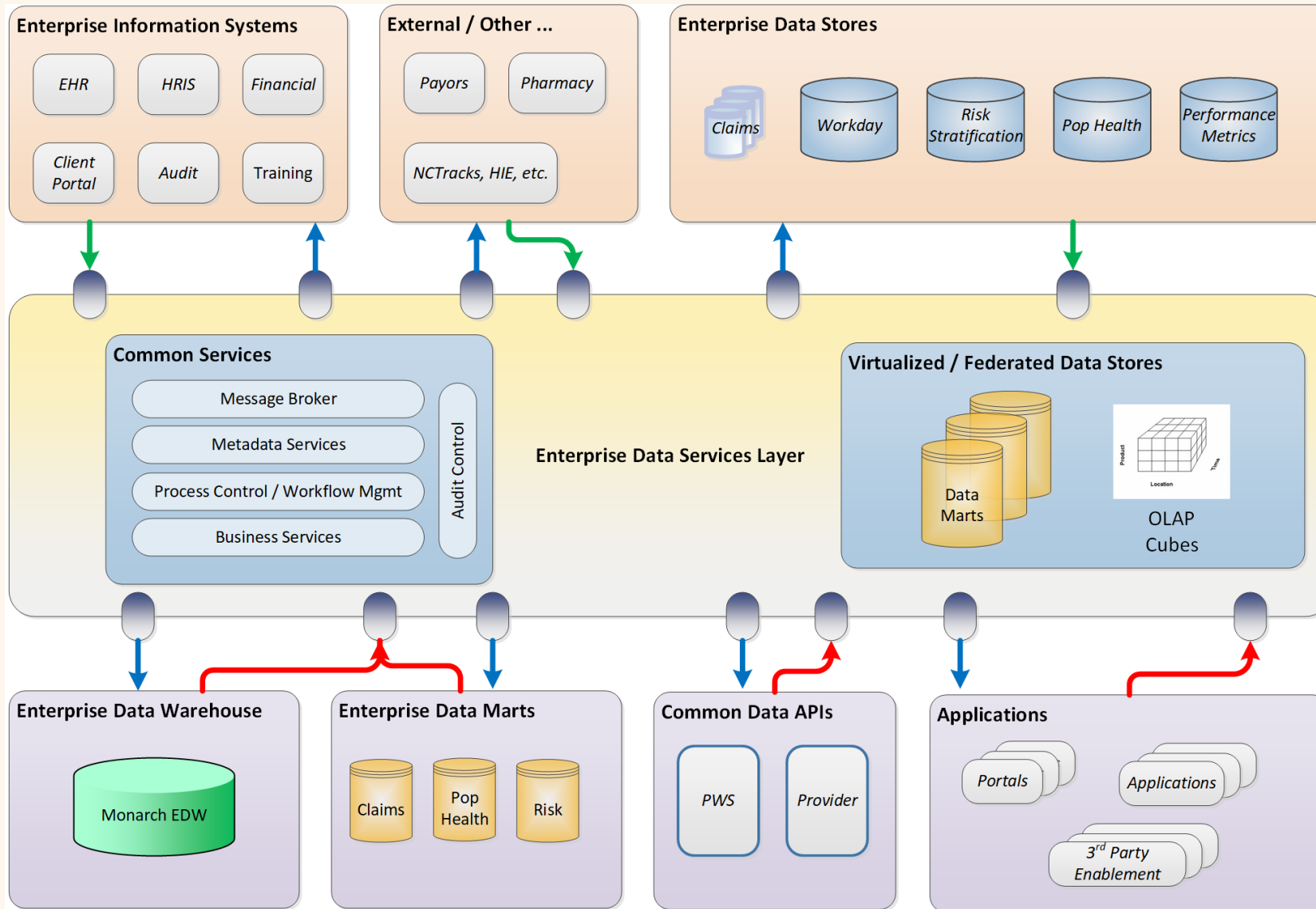


Having a plan

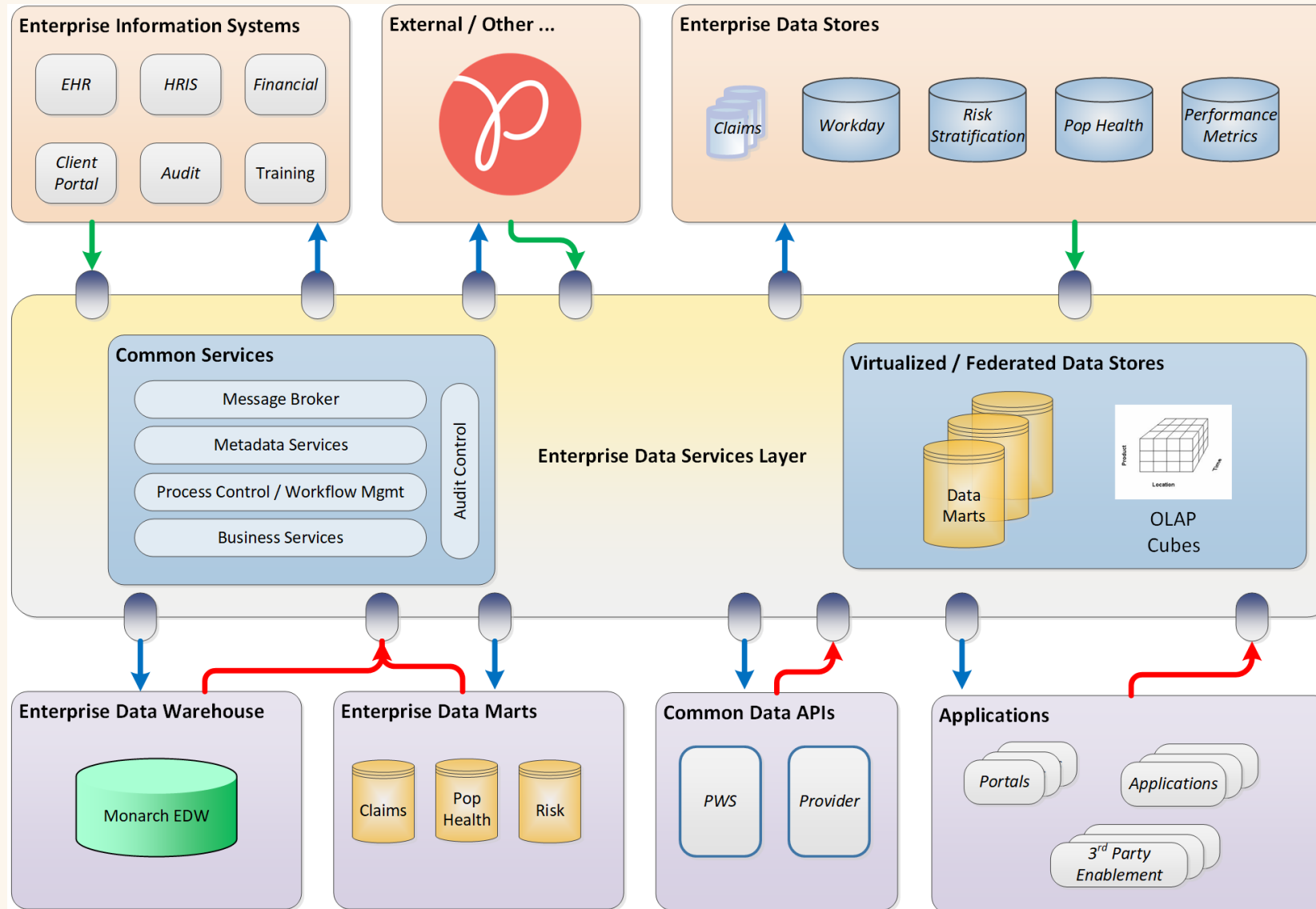
- ✓ This gets back to fulfilling *Strategy*
- ✓ *Plans* describe *tasks* to complete *objectives* towards *goals*
- ✓ An objective must be time-bound, quantifiable and determinant
- ✓ Goals exist to meet a specific strategy
- ✓ Strategy is best aligned to corporate *mission, vision, and values.*



Enterprise Data Services




Enterprise Data Services



Thank you

- ✓ *"In God we trust, all others bring data." – W. Edwards Deming*
- ✓ *"Above all else, show the data." – Edward R. Tufte*
- ✓ *"Without a systematic way to start and keep data clean, bad data will happen." – Donato Diorio*
- ✓ *"Think analytically, rigorously, and systematically about a business problem and come up with a solution that leverages the available data." – Michael O'Connell*
- ✓ *"The world is one big data problem." – Andrew McAfee*



“The greatest danger in times of turbulence is not the turbulence – it is to act with yesterday’s logic.”

Peter Drucker

Pings Patient Notification Connects People in Need to Support

Michelle Lowder isn't sure where she would be without the [Pings](#) service used by Monarch through [Bamboo Health](#).

On December 4, 2019, when Monarch was implementing the patient notification system, she visited her local hospital's emergency department. She was experiencing a panic attack on the one-year anniversary of her son's death from an opioid overdose.

Following Tommy's death, she struggled with her own recovery and mental health. She worried about her younger son, David, coping with the death of his brother. The memories and grief were difficult for Michelle to bear.

The memories from a year earlier remained vivid and she can still see the needle left in his arm as he lay on the floor. She recalls quickly administering a dose of Narcan, a potentially lifesaving medication designed to help reverse the effects of an opioid overdose, she had secretly kept on hand.

She prayed for a miracle. Her son had overdosed two weeks before when emergency personnel used Narcan to save his life. She immediately called 9-1-1.

Her heroic efforts were no match against the grip of the opiates that took his life. "I always stayed geared up to receive a phone call to come and identify his body," she said of an expectation she had due to his substance use disorder.

As a Pings subscriber, Monarch receives a digital notification that a person supported sought medical attention at another health facility. [Debbie Miller, RN](#), who is a nurse care manager through Monarch's Certified Community Behavioral Health Clinic (CCBHC) in Stanly County where Michelle receives care, was able to contact her following the hospital visit and reconnect with critical mental health care.

"The Pings service, to sum it up, is the only reason that I am able to sit here with you and chat with you this very moment," Michelle believes, noting that she calls the service a blessing.

Michelle was grateful that Monarch was able to assist with scheduling consistent mental health treatment: "Pings got me back in mental health services, literally. I don't think I would have pursued it with all the grief. I don't know how much follow through I would have had in me to pursue getting help."

Today, Michelle is grateful that Pings helped Monarch staff reach out and that mental health services resumed. "This is one of those things that there is no fooling myself. If I don't have someone helping me than I won't be here to help my son," she says of her desire to be an example for her youngest son.

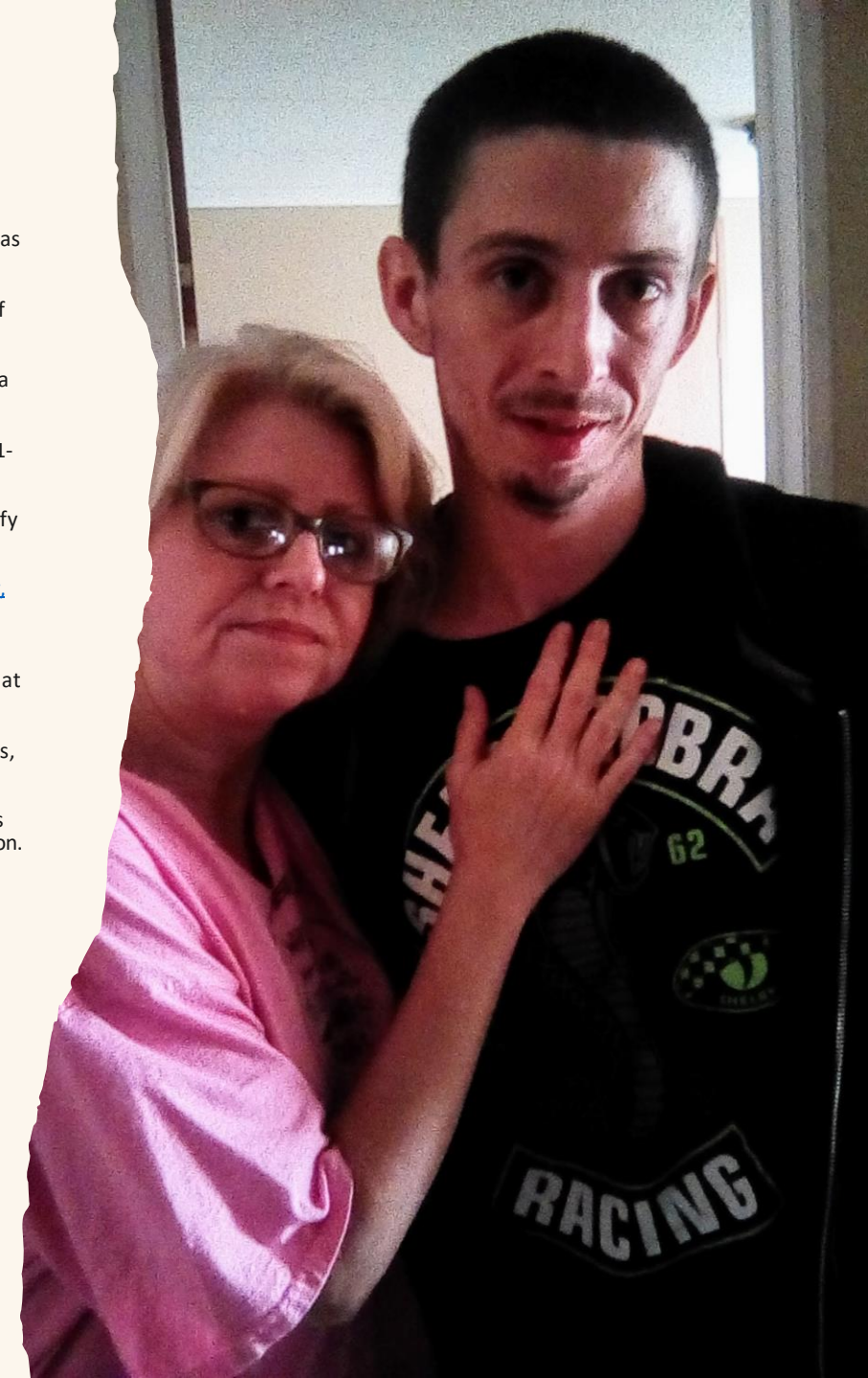
She is proud of remaining vigilant about receiving consistent mental health care, however, she is still working toward processing the death of her son. Michelle receives individual therapy through Monarch Senior Therapist Amy Medlin, MSW, LCSW.

CCBHC's Debbie, who assists Michelle with receiving Monarch care, has seen so many positive changes in her through volunteering in the community, buying her own car and staying engaged in her mental health care. "I have seen her go from broken and struggling, and very tearful every time we saw each other to thriving and participating in life," Debbie observes. "She has done a amazing and she seems happier, smiling and proud of herself."

Michelle shares that she has been receiving care on a regular basis and is doing well. "I can't do this without Monarch's help," she says of her goal to continue healing.

Click [here](#) to read more about the Pings service used at Monarch.

Posted on: Monday April 4, 2022



PatientPing – Success Stories

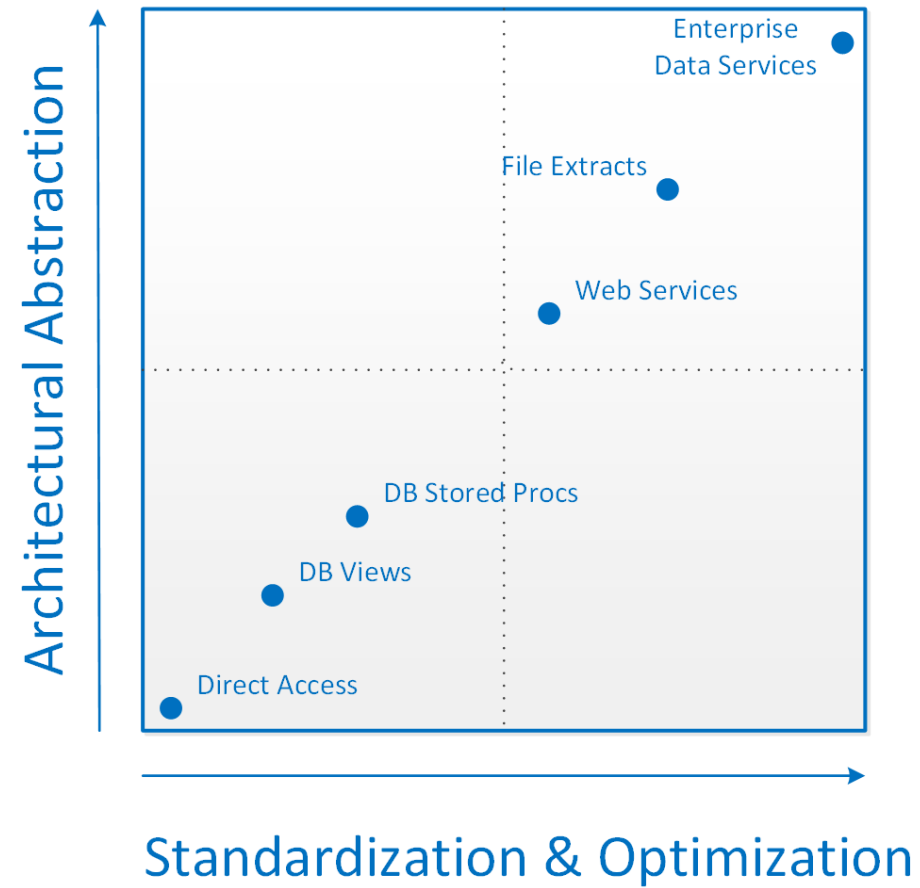
T.L. was discharged from the Emergency Department after presenting with increased anxiety and severe depression. When I called her to follow up, she informed me that it was the anniversary of her son's death and the only thing she knew to do was go to the ED. She was very happy to hear from me and said that she had become so depressed she just stopped going to her doctor's appts. She came to the office the next morning and has had continued success with individual therapy. She states she is so very thankful that Monarch reached out to her and that she is much happier now.

D.H. was discharged from the ED with a sprained wrist. When I called to follow up, he stated that he punched a wall out of anger. He told me that his anger and anxiety has worsened over the past few months. D.H. hadn't been engaged with Monarch for quite a while. He told me that he was happy that I reached out to him, and he was seen in the office a few days later. He is now engaged and is receiving individual therapy.

F.V. was admitted to the Behavioral Health Unit for 2 weeks. I went to visit our client to see how he was feeling and to schedule a follow up visit with Monarch. When I walked into his room, he smiled and said he was glad I came to visit. He stated that he hadn't had a visitor in 6 days. I reassured him that myself and everyone at Monarch are here to support him. We had a very nice visit and before I left, he scheduled his follow up appt with Monarch. He continues to receive one on one therapy and receives monthly injections that he feels are very helpful.

E.C. was discharged from the ED after having severe stomach cramps, nausea and vomiting. When I called to check on her, she informed me that she recently had an IUD implanted "incorrectly". She stated that she wanted to change to another OB/GYN. The appt. was scheduled with the new Dr. and a follow up appt was scheduled with Monarch. The IUD was removed successfully. She came for her follow up appt. with Monarch the following week and appears to be doing very well.

Enterprise Data Services



Enterprise Data Services

