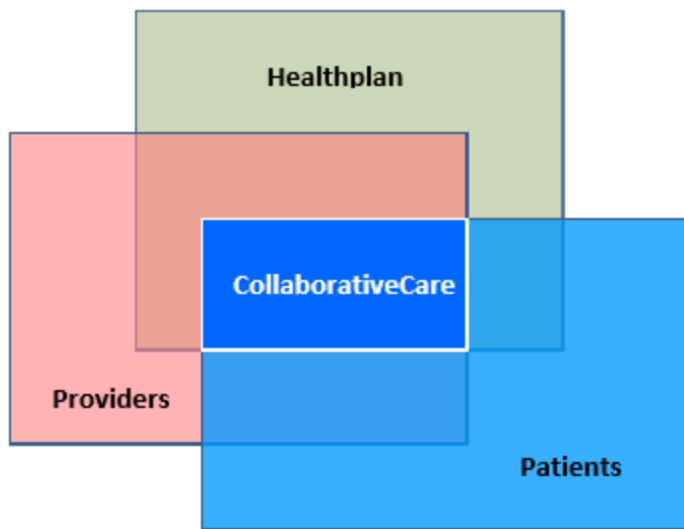


# 2019

## CollaborativeCare



## Healthcare Reform

Healthcare reform is based on consensus that healthcare services are often fragmented, uncoordinated and not accountable. Hence, the quality is not optimal. For many patients, satisfaction with care they receive is low. And patients who have preventable emergencies, injury, illness, and disease are unable to afford or obtain health and wellness care. Referrals and coordination of care practices have not been efficient, nor has there an effective means to assure physical, behavioral, and mental health needs are satisfied.

Until the last decade most the focus of healthcare has been concentrated on treating serious and life-threatening illness and disease rather than prevention. Improvements in quality, savings, and better patient care result when the focus shifts. The Health Information Technology for Economics and Clinical Health Act (HITECH) and the Patient Protection and Affordable Care Act (ACA) are central to the resurgence of health care management by public and commercial health care payment sectors. In the mid 1980's and early 1990's, managed care meant "restricting care" based on criteria that that was not transparent or accountable. Beginning with the ACA, healthcare reform is focused on the quality of care. This focus requires that healthcare be measured, accountable, transparent, affordable and available. As a result of the ACA and the HITECH, fee-for-service mental health services will be shifting to coordinated and accountable care.

The Triple Aim of healthcare reform is to (1) ensure reasonable access to care and a positive patient experience, (2) improve patient and group health and well-being, and (3) to manage and contain costs. These three goals are to be implemented in a manner that is transparent and accountable. Measures of the Triple Aim are being created, evolving and beginning to be used. Both healthcare providers and payers will be accountable.

# CollaborativeCare

## United States Health and Humans Services – Strategic Goals

### Reference

<https://www.hhs.gov/about/strategic-plan/strategic-goal-1/index.html>

### Strategic Goal 1: Reform, Strengthen, and Modernize the Nation's Healthcare System

1. *Promote affordable healthcare, while balancing spending on premiums, deductibles, and out-of-pocket costs*
2. *Expand safe, high-quality healthcare options, and encourage innovation and competition*
3. *Improve Americans' access to healthcare and expand choices of care and service options*
4. *Strengthen and expand the healthcare workforce to meet America's diverse needs.*

### 3 Perspectives

1. Effectiveness
2. Efficiency
3. Equity

### Requirements

Frameworks, criteria, measures, control mechanisms, and methods for evaluating health services, systems, and policies.

# CollaborativeCare

## CollaborativeCare

CollaborativeCare is accountable care. This service delivery model offers a Patient Reported Outcomes Measurement (PROMS) system to obtain feedback and information on an individual's response to treatment—measurable Clinical Outcome Improvements—that can evolve to Population Focused Improvements. Since 2012 CollaborativeCare has been developing and is now engaged in the only feasible model that can engage mental health professionals in a scalable, measurable and accountable manner. CollaborativeCare offers a solution that resolves the infrastructure and system redesign processes promoted by CMS and the Healthcare Payment Learning and Action Network. It offers clinical outcome improvements using an electronic questionnaire builder and delivery system that can be delivered across a broad range of devices gathering, aggregating, processing, analyzing and reporting baselines, progress, satisfaction, and outcome to patients, therapists, physicians and Healthplans.



# *CollaborativeCare*

## Oregon Health Authority - Office of Health Information Technology

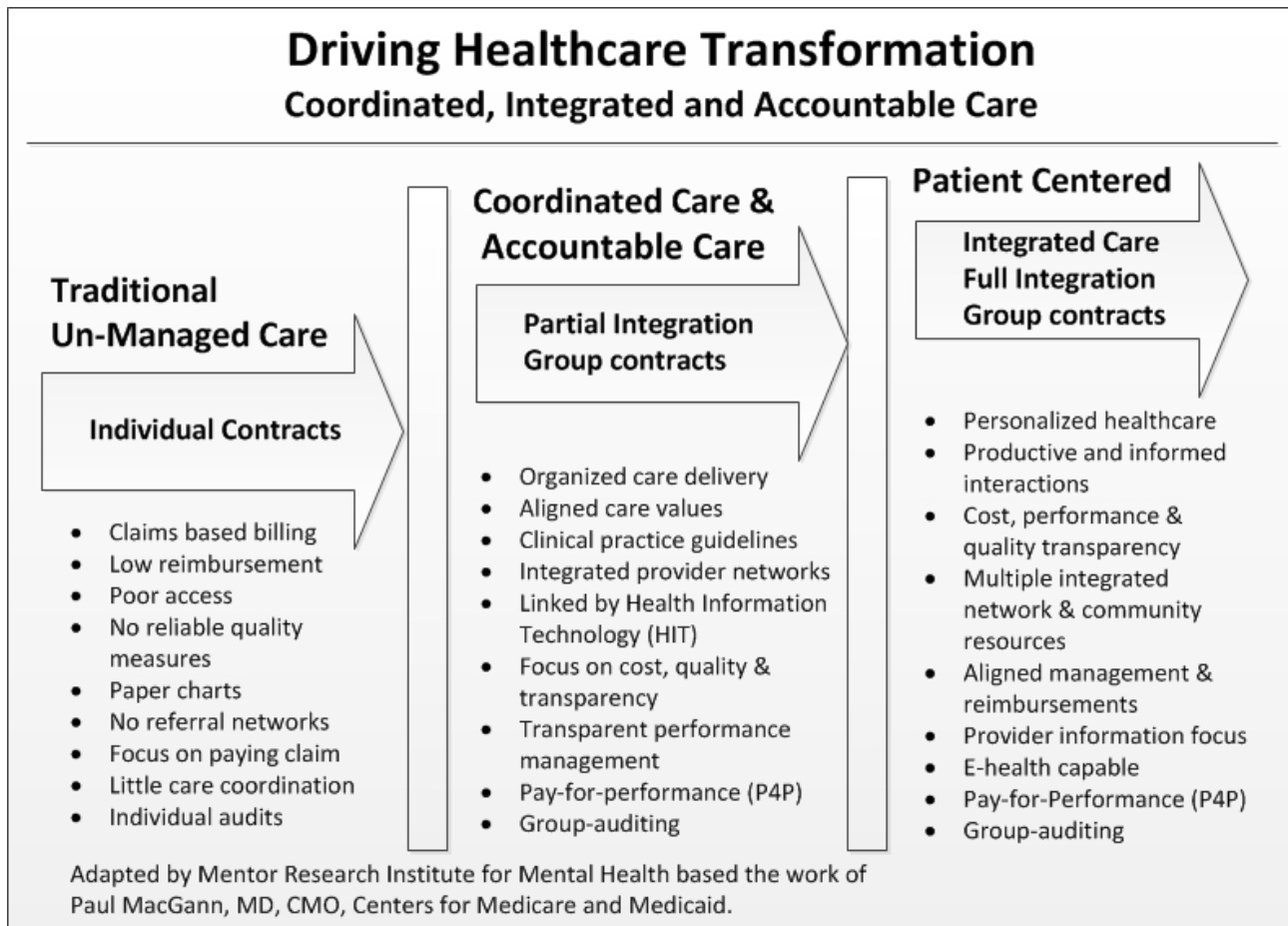
### Vision

HIT-optimized health care: A transformed health system where health information exchange (HIE) efforts ensure that the care Oregonians receive is optimized by health information technology (HIT).

### Three Goals of HIT-Optimized Health Care:

- Oregonians have their core health information available where needed so their care team can deliver person-centered, coordinated care.
- Clinical and administrative data are efficiently collected and used to support quality improvement, population health management, and incentivize improved health outcomes. Aggregated data and metrics are also used by policymakers and others to monitor performance and inform policy development.
- Individuals and their family's access, use and contribute their clinical information to understand and improve their health and collaborate with their providers.

## Mental Health Transformation



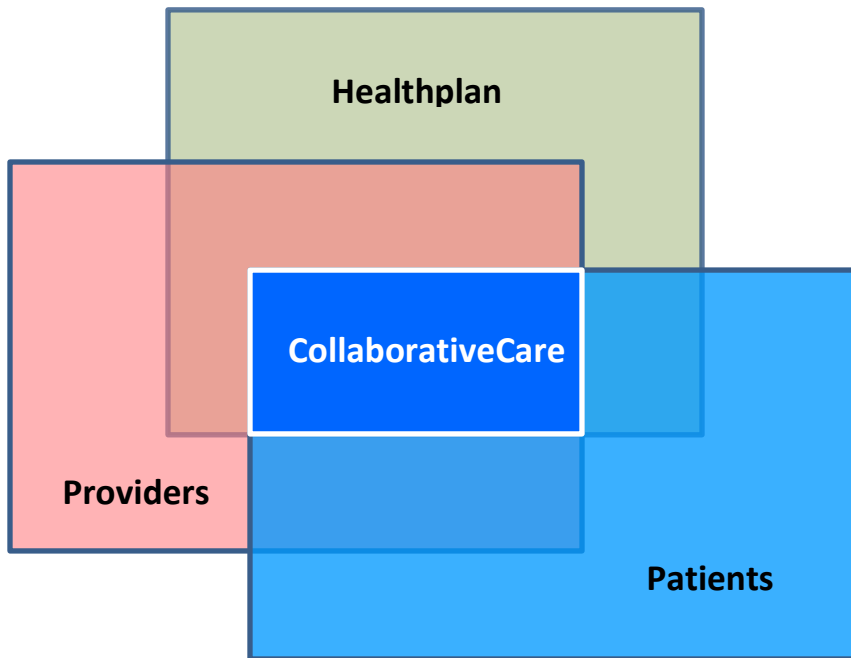
## **Antitrust Law Prohibits Solo Practice Influence and Ability to Negotiate**

Solo and small group practice psychotherapists are severely limited by the very independence they value. As individuals, they are legally prohibited from discussions of fees-for-service and other group actions that might influence markets and trade. Solo and small group practice psychotherapists cannot come together to set up, direct, coordinate, organize, encourage, help steer, set agendas, aide discussions for the purpose of creating strategies, terms of dealing, agreements for a group in order to restrict competition, secure a higher rate of reimbursement and/or form anticompetitive agreements. Failure to follow these guidelines can bring the activities of individuals or groups of individuals to the attention of Federal Trade Commission and has the risk of investigation by the Department of Justice for “per se illegal” behavior.

# *CollaborativeCare*

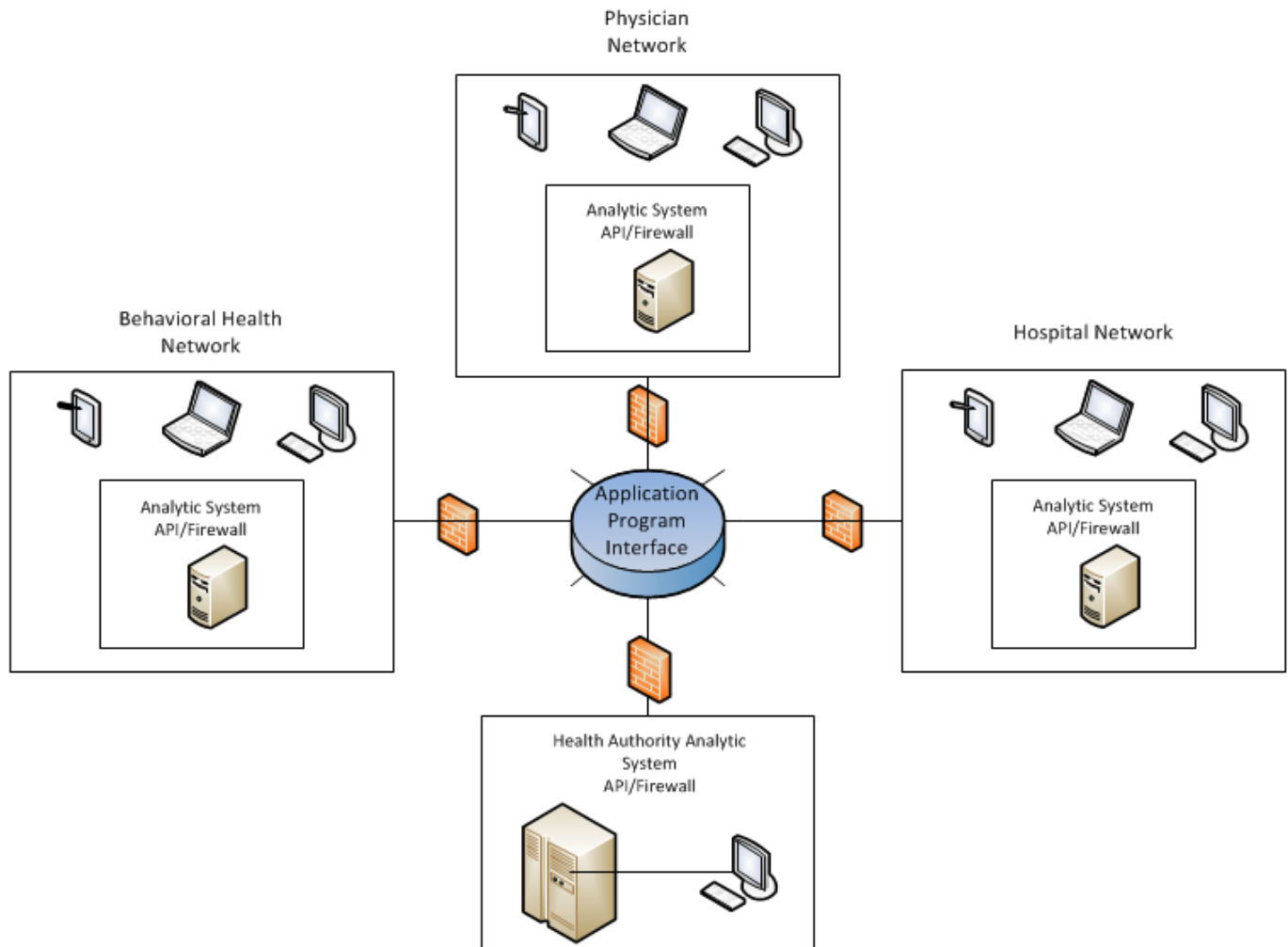
## Solution

CollaborativeCare is a model with technology and analytic system that creates actionable data which inherently encourages informed decision among Healthplans, providers and patients.



# CollaborativeCare

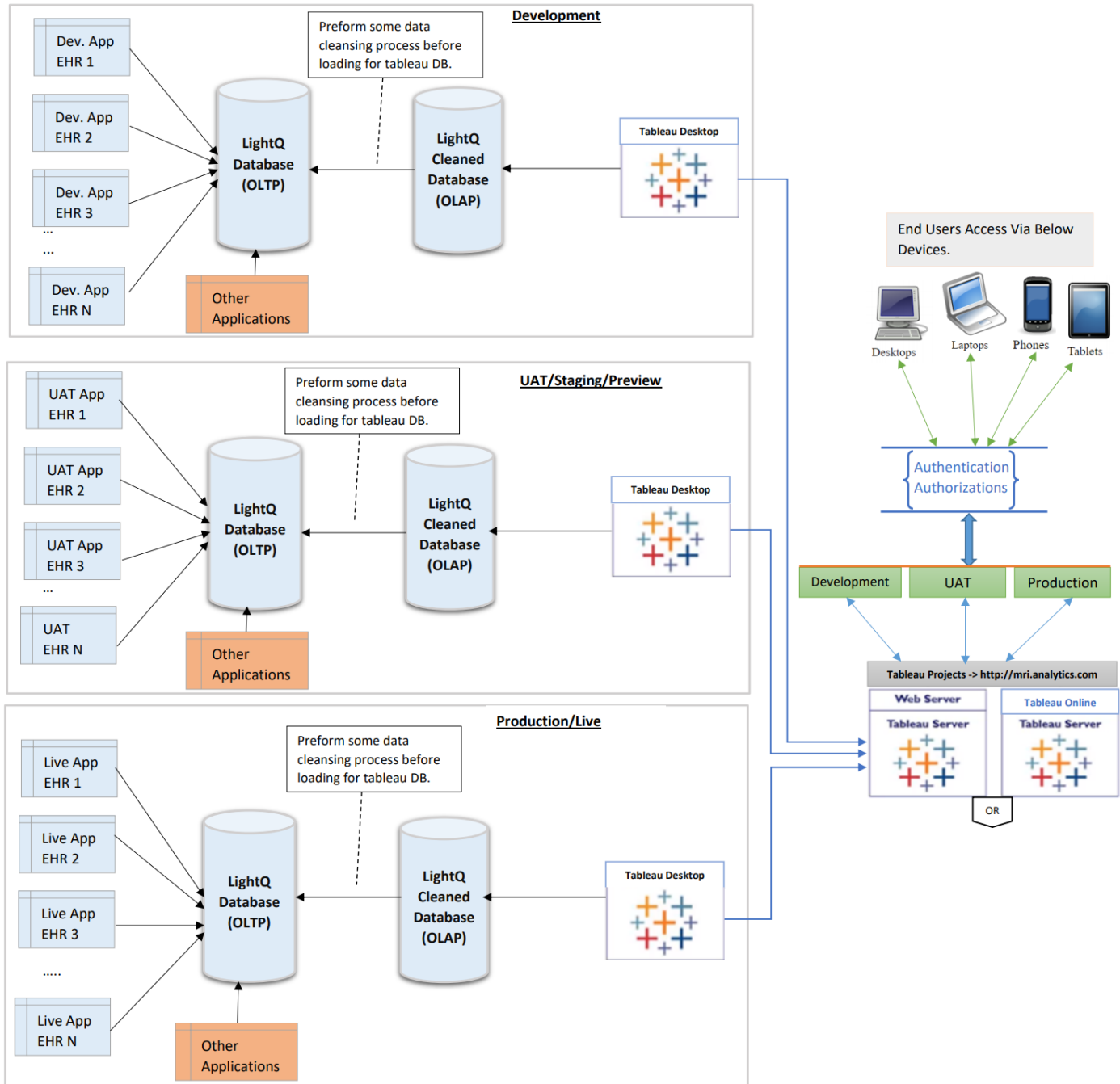
## CollaborativeCare Information Sharing and Analytic System



# CollaborativeCare

## CollaborativeCare Information Development to Deployment

**High Level Diagram of Tableau Reports/Dashboard Development and Deployment.**



**Description:**

Above high level diagram will help to understand the development, deployment and required infrastructure.


## 1. Improve Americans' access to healthcare and expand choices of care and service options

### Access – Finding Qualified Providers


**OTC** Oregon Therapy Clinics

HOMESEARCHFEATURED THERAPISTSONLINE SCREENINGAPPOINTMENTSARTICLESBLOG


## How to Find a Therapist or Counselor




Finding a Therapist or Counselor



No-Cost Screening



Book Initial Appointment Now



Urgent Appointments

Locate a Provider by Name

Locate Provider by

City & zip code

Problem

Type of service

Specialty

Office hours

Insurance

Out of pocket

Language

Go to Advanced Search ->

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Page 10 of 32

## 2. Expand safe, high-quality healthcare options, and encourage innovation and competition

### Referral - Selecting an Available and Qualified Provider

**OTC** Oregon Therapy Clinics
 HOME SEARCH ▾ FEATURED THERAPISTS ONLINE SCREENING ▾ APPOINTMENTS ▾ ARTICLES ▾ BLOG

Search provider
 [Clear Filters](#)

Populations served ▾

Common Problems ▾

Usual appointment days ▴
 

☐ Monday
 ☐ Tuesday
 ☐ Wednesday
 ☐ Thursday
 ☒ Friday
 ☐ Saturday
 ☐ Sunday

Usual office hours ▾

Pay by Cash ▾

Provider Gender ▾

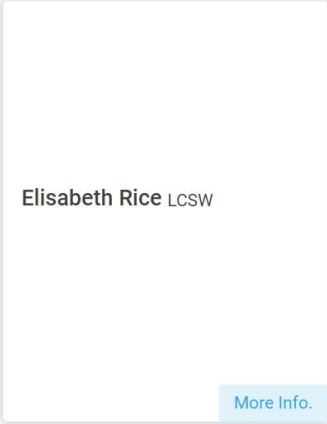
Skills ▾

Type Of Service ▾


Urgency ▾

DEPRESSION ✕
 9am to noon ✕
 Friday ✕


### Providers Results




**Elisabeth Rice** LCSW
 [More Info.](#)




**Kirin Nelson** MA LPC
 I enjoy working with older adolescents and adults of all ages in individual, couples and family therapy. My style is supportive and strengths based while appropriately
 [More Info.](#)




**Joan Starker** MSW PhD
 Dr. Starker has spent a major portion of her career helping individuals cope with normal life transitions such as midlife, menopause, relocation, divorce, and retirement. In her private
 [More Info.](#)



**Gary Monkarsh** PhD
 My therapy philosophy involves a holistic approach to treatment that takes into account a person's mental, physical, social, emotional and spiritual needs. I developed a strong
 [More Info.](#)



**Michaelae Dunlap** Psy.D.
 Respectful and supportive therapy for those experiencing difficult life changes, loss, depression, anxiety, stress, troubled relationships, health problems complicated by emotional
 [More Info.](#)




**Jessica Thomas** LMFT PhD
 Dr. Jessica Thomas, has extensive education and experience helping those struggling with loss, anticipatory grief, complicated grief, depression, anxiety, PTSD, couple's
 [More Info.](#)

## Full Provider Profile – includes online appointment booking options

**OTC** Oregon Therapy Clinics

HOMESEARCHFEATURED THERAPISTSONLINE SCREENINGAPPOINTMENTSARTICLESBLOG



Verified

Send to Friend

Tamazin Heher

201 B Avenue, Suite 255 , LAKE OSWEGO, Oregon, 97034

Book Appointment

<http://www.zinheher.com> | (415) 699-9466

### Availability

I have a 0 week waiting list.

### Provider license

Licensed Clinical Social Worker

### Population Served

- Adolescent (11 to 14)
- Adolescent (15 to 18)
- Adult (18 to 59)
- Bisexual
- Child (3 to 10)
- Couple
- Elder (65+)
- Family
- Gay
- Heterosexual
- Lesbian
- LGBTQ

### Scheduling

- Book online an initial consultation
- Call for an appointment

### Office Days & Hours

#### Tuesday

- 9am to noon
- Noon to 5pm
- Hours after 5pm

#### Wednesday

- 9am to noon

### Services

abusive/aggressive childADJUSTMENT Stress

adverse childhood experienceaging parentsANXIETY

blended familychild issueschildhood trauma

COMMUNICATION skillsDEPRESSIONDIVORCE prevention

domestic abusefamily caregivingFAMILY conflict

FAMILY Problemslife STRESSmarriage without love

OPPOSITIONAL & DEFIANT ChildPANIC/anxiety attacks

parenting & co-parentingPARENTING differencesperfectionism

personal growthpostpartum moodromantic loveself-esteem

SOCIAL Anxietysocial anxiety/phobiaSUICIDAL thoughts

Transition to PARENTHOOD

### Skills & Methods

- behavioral health
- COGNITIVE BEHAVIORAL
- couple counseling
- interpersonal therapy
- life COACHING
- MARITAL therapy/counseling
- mindfulness-based cognitive therapy
- motivational interviewing
- positive psychology
- PSYCHOTHERAPY
- solution focused

### Education

## Online Scheduling - For Initial Appointments

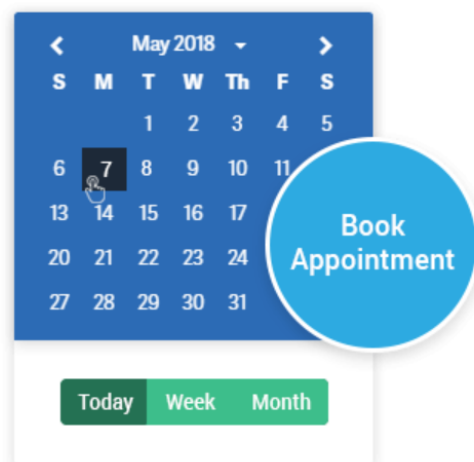
# CollaborativeCare

## Initial Consultation

### Book Now

You may book your first appointment now. The provider will call you to confirm the appointment. They may give you an access code or send you an online screening by text or email.

Fetch Provider List



## Online Screening and Outcome Measures – Onsite and Anonymous

### Screening & Outcomes

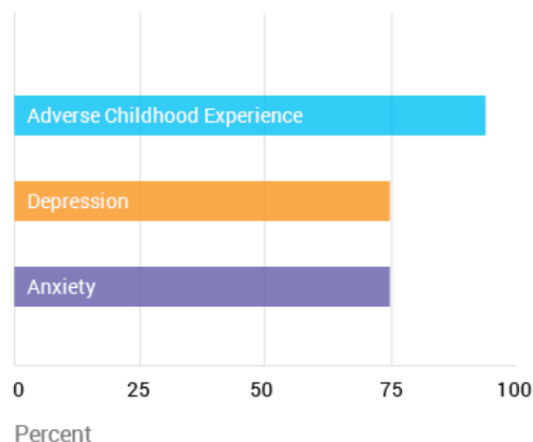
#### We Offer Valid Screening and Progress Measures

1. Screening for symptom severity for depression, anxiety, mood disorder and physical symptom burden that you can give to your physician or a mental health professional.
2. Screening for Adverse Childhood Experience (ACE) that can cause health problems, substance abuse, emotional and relationship difficulty.

Write down your access code and share with any provider on this site. (Providers cannot retrieve your code if you lose it.)

Comprehensive Screening

Use Provider Access Code for Screening



## 3. Strengthen and expand the healthcare workforce to meet America's diverse needs.

Strengthen and expand the healthcare workforce - To meet America's diverse needs

**OTC** Oregon Therapy Clinics

Member/Provider Login

## Become a Provider

Sign Up



### AMHA - Sunrise News

For several years AMHA members have been asking to update the aging AMHA-Oregon websites. The AMHA board obtained estimates from website developers that ranged from



For Healthplans in C

### Join/Renew AMHA Membe...

#### Stay Independent

Protect Practice Quality, Rates, Referrals & Income



### Private Practice Cloud

#### Demonstrating Quality and Value


This website is a one-of-a-kind brand-new modular design where you can pick and choose the services you need.



### Accountable Therapy













Accountable Therapy Provider means that the member acknowledges the following ...

## Measurement and Analytic System Administration

 Home ▾

Dashboard > Administration

### Administrator

 Diagnoses 	 Business Account Name for Individual or Group 	 Create & Edit an Individual Clinical User/Provider 
 Create or Edit a Business Clinical Group Practice 	 Associated Accounts 	 Create and manage Questionnaire 

## Create and Manage Questionnaire



Question Preface  
Builder



Question Element  
Builder



Response Builder




Test Builder



Questionnaire  
Builder



## Community Education and Marketing – Unlimited no cost Websites



Portland Oregon

### Panic and Anxiety Clinic

Michael G Conner, PsyD  
Clinical Psychologist

Fear is not real.  
The only place that fear can exist is in our thoughts of the future.  
It is a product of our imagination causing us to fear things that are not happening and may never happen.  
That is near insanity.  
Danger is real. But fear is a choice.  
We are all telling ourselves a story. Sometimes we need to change that story.


#### Practice Information

Address	965 NE Wiest Way, Suite 2
Phone	541 388-5660
Fax	541 323-2000
Email	conner@BendPsychology.com
Secure email	
License	#1197

[See more](#)

#### About Dr. Conner


The panic and anxiety has been in existence since 2012. The founder is Dr. Michael Conner who was a clinical psychologist with an extensive background in medical and mental health care. He is the sole proprietor who has been in license practice since 1995.



- Mike Conner is one of the leading psychologists practicing in the areas of crisis intervention, family psycholog

[See more](#)

#### Accountable Therapy



##### The Accountability Verdict is In

Outcome research is clear in the United States and Internationally. In general, a therapist or counselor's experience, training and credentials alone do not predict positive treatment outcomes. The model or theory of therapy generally does not predict treatment outcomes. Instead, the model used within an aligned patient-therapist relationship will make the biggest difference. Most patients will experience a 50% reduction of svmtoms within the

[See more](#)

#### Services

##### Service That I Provide

- behavioral health
- biofeedback
- COGNITIVE BEHAVIORAL
- couple counselling
- cranial electrotherapy stimulation(CES)
- EMDR
- humanistic therapy
- interpersonal therapy
- life COACHING
- mental health screening
- positive psychology
- psychological EVALUATION
- solution focused

[See more](#)

#### Screening Questionnaire

##### Take a Reliable, Valid & Anonymous Screening

PRIVATE, NO COST, TAKES 10 TO 12 MINUTES

The most commonly used screening questionnaire for psychological and physical symptoms are the GAD7, PHQ9, PHQ15 and MDQ13.

#### Measure your Progress

Patient Name:	Mike Rennoc	Date of Birth:	10/13/1992
Patient Progress And Coordinated Care Chart Note			
Gender:	Male	Health Record Number:	1000011
Provider Name:	Test Demo	Primary Diagnosis:	F321 - Major depressive disorder, single episode, moderate
Secondary Diagnosis:		Prognosis:	Very Good
Patient Status:			Stable

## Patient Reported Outcome Measures – Multiple delivery and processing methods including cellphone, tablet and computer

OPTIONS

Patient Info and Consent

Chart Notes

Analyze

Select Questionnaires to Send

Load Questionnaire Key Code

Fax History List

Archive Patient

Questionnaire Status

Not Sent0

Sent0

NotComplete0

ReadyToView0

Viewed26

Declined2

LightQ

Home Test

Dashboard > Patients > Patient Information

Patient Information

Mike Conner

Viewed Questionnaires

Search:

Questionnaire Name	Date Completed	Last Status Change	Last Sent	Last Sent Via	Access Code	
PSC-35 Pediatric Symptom Checklist v1.0	9/30/2020	10/3/2020	9/30/2020	Text	8OsloDF	OPTIONS
Adverse Childhood Experience	4/24/2020	4/24/2020	4/24/2020	Email	qlbxAYe	OPTIONS
AMHA Attention Deficit & Hyperactivity Disorder Questionnaire (ADHD) v1.2	11/28/2020	11/28/2020		Access Code	eMtYlni	OPTIONS
AMHA Attention Deficit & Hyperactivity Disorder Questionnaire (ADHD) v1.3	11/28/2020	11/28/2020		Access Code	CgxtOGe	OPTIONS
AMHA Attention Deficit & Hyperactivity Disorder Questionnaire (ADHD) v1.5	11/28/2020	3/17/2021		Access Code	Uq9JcW5	OPTIONS

## Integrated Test & Questionnaire Builder – Supports standardized and copyleft patient reported outcomes (PROMs)

























Dashboard
Preface Builder
Question Element Builder
Response Builder
Question Builder
Test Builder
Questionnaire Builder
Manage Tags
Manage Branching of Question
Questionnaire Report
Manage Branching of Test

### Create and Manage Question

Create Question

LogOut

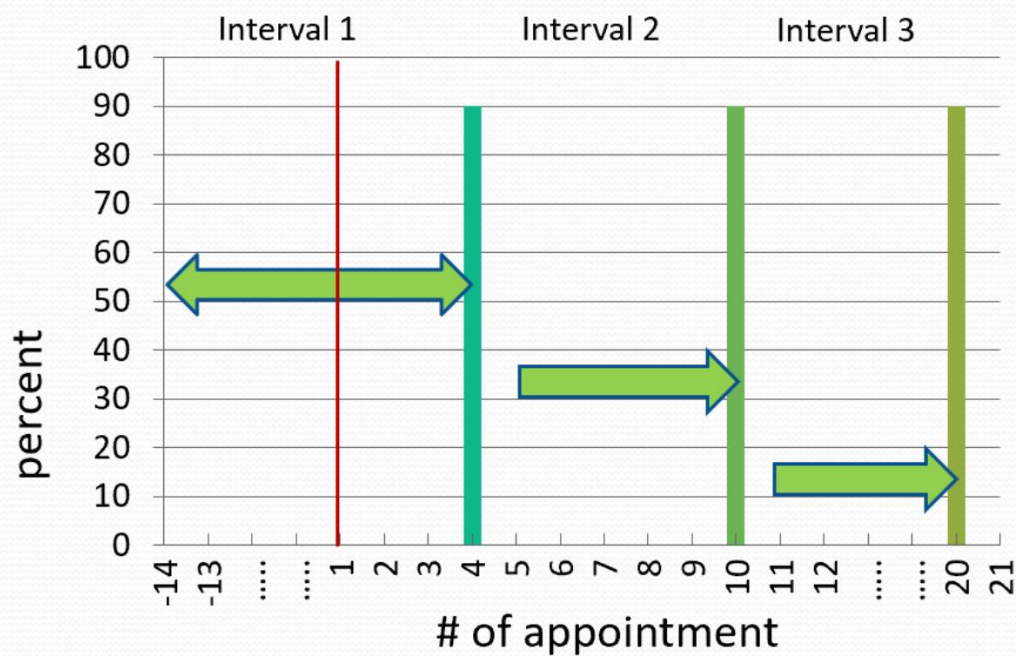
Search

Question Variable	Question Preface	Question Text	Answer SetName	
	How often in the past MONTH have you been bothered by	constipation, loose bowels or diarrhea?	Not At All - A Lot	  
	Growing up and before the age of 18	did a member of your childhood home go to prison?	No - Yes	  
	Growing up and before the age of 18	did a parent or other adult in the household often act in a way that made you afraid that you would be physically hurt?	No - Yes	  
	Growing up and before the age of 18	did a parent or other adult in the household often swear at, insult, or put you down?	No - Yes	  
	Growing up and before the age of 18	did a parent or other adult in your household often hit you so hard that you had marks or were injured?	No - Yes	  
	Growing up and before the age of 18	did a parent or other adult in your household often push, grab, shove, or slap you?	No - Yes	  
	Growing up and before the age of 18	did an adult or person at least 5 years older ever attempt or actually have oral, anal, or vaginal intercourse with you?	No - Yes	  
	Growing up and before the age of 18	did an adult or person at least 5 years older ever touch or fondle you or have you touch their body in a sexual way?	No - Yes	  

# CollaborativeCare

Measurement Based Care (MBC) – Symptoms burden, functionality, Rx adherence, alliance and satisfaction

1 measure in each of 3 intervals (total of 3)

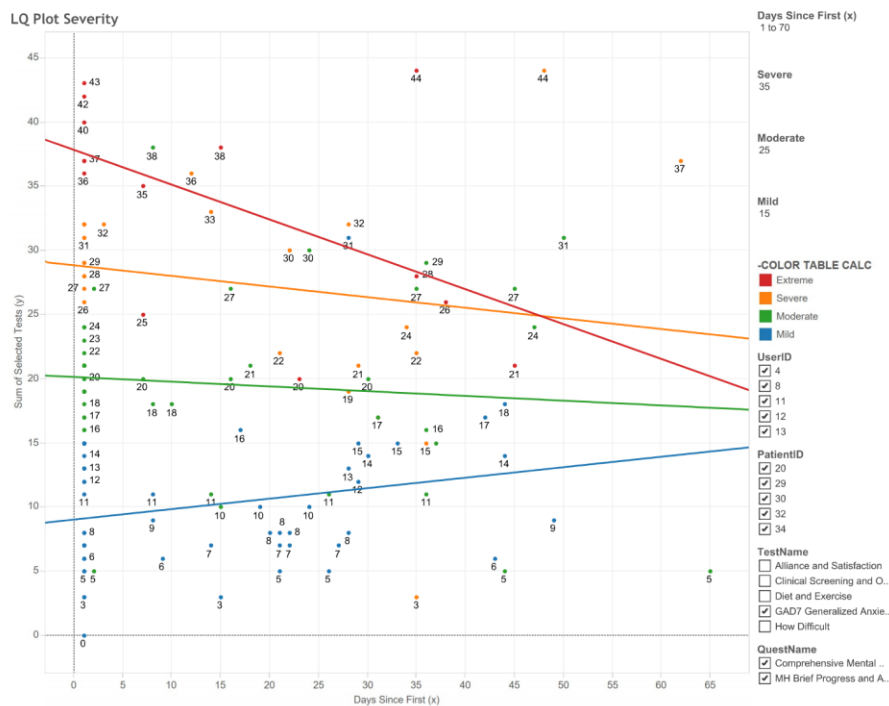


## Alternative Payment Methods (APM) – Require analytics

The healthcare industry is under pressure to reduce costs, while keeping the customer front and center. The following provides a walkthrough of methods to achieve greater affordability by increasing fee for value programs and sharing how a self-service visual analytics reporting platform enables individuals and groups of providers to drill into actionable trends.

## Visual Analytics – Reveal Opportunities to Discuss and Improve Quality

The following reports and screens from an information gathering, aggregation and reporting software system that allows providers to steer patients to higher quality specialists, reduce unnecessary care and target quality of care for treating, preventing and managing potentially chronic health problems. Extending this methodology beyond the CollaborativeCare’s firewall to external partners, this secure, group-specific dynamic reporting system is accessible via a multi-use web portal.



# CollaborativeCare

## Business Logic for Standardized Costs and Effect Size

Standardized Data Example														
Therapist ID	Therapist	CPT	Sessions billed to Healthplan A (number of sessions)	Health Plan A Rates	Total Paid Health Plan A Per CPT	Sessions billed to Healthplan B (number of sessions)	Health Plan B Rates	Total Paid Health Plan B Per CPT	Sessions billed to Healthplan C (number of sessions)	Health Plan C Rates	Total Paid Health Plan C Per CPT	Sessions billed to Healthplan D (number of sessions)	Health Plan D Rates	Total Paid Health Plan D Per CPT
1	Bob	CPT1	2.00	\$45.00	\$90.00	2.00	\$55.00	\$110.00	2.00	\$65.00	\$130.00	2.00	\$75.00	\$150.00
1	Bob	CPT2	3.00	\$60.00	\$180.00	3.00	\$70.00	\$210.00	3.00	\$80.00	\$240.00	3.00	\$90.00	\$270.00
1	Bob	CPT3	4.00	\$75.00	\$300.00	4.00	\$85.00	\$340.00	4.00	\$95.00	\$380.00	4.00	\$105.00	\$420.00
1	Bob	CPT4	5.00	\$90.00	\$450.00	5.00	\$100.00	\$500.00	5.00	\$110.00	\$550.00	5.00	\$120.00	\$600.00
2	Lance	CPT1	2.00	\$45.00	\$90.00	2.00	\$55.00	\$110.00	2.00	\$65.00	\$130.00	2.00	\$75.00	\$150.00
2	Lance	CPT2	3.00	\$60.00	\$180.00	3.00	\$70.00	\$210.00	3.00	\$80.00	\$240.00	3.00	\$90.00	\$270.00
2	Lance	CPT3	4.00	\$75.00	\$300.00	4.00	\$85.00	\$340.00	4.00	\$95.00	\$380.00	4.00	\$105.00	\$420.00
2	Lance	CPT4	5.00	\$90.00	\$450.00	5.00	\$100.00	\$500.00	5.00	\$110.00	\$550.00	5.00	\$120.00	\$600.00
3	Tom	CPT1	2.00	\$45.00	\$90.00	2.00	\$55.00	\$110.00	2.00	\$65.00	\$130.00	2.00	\$75.00	\$150.00
3	Tom	CPT2	3.00	\$60.00	\$180.00	3.00	\$70.00	\$210.00	3.00	\$80.00	\$240.00	3.00	\$90.00	\$270.00
3	Tom	CPT3	4.00	\$75.00	\$300.00	4.00	\$85.00	\$340.00	4.00	\$95.00	\$380.00	4.00	\$105.00	\$420.00
3	Tom	CPT4	5.00	\$90.00	\$450.00	5.00	\$100.00	\$500.00	5.00	\$110.00	\$550.00	5.00	\$120.00	\$600.00
4	Sally	CPT1	2.00	\$45.00	\$90.00	2.00	\$55.00	\$110.00	2.00	\$65.00	\$130.00	2.00	\$75.00	\$150.00
4	Sally	CPT2	3.00	\$60.00	\$180.00	3.00	\$70.00	\$210.00	3.00	\$80.00	\$240.00	3.00	\$90.00	\$270.00
4	Sally	CPT3	4.00	\$75.00	\$300.00	4.00	\$85.00	\$340.00	4.00	\$95.00	\$380.00	4.00	\$105.00	\$420.00
4	Sally	CPT4	5.00	\$90.00	\$450.00	5.00	\$100.00	\$500.00	5.00	\$110.00	\$550.00	5.00	\$120.00	\$600.00
5	Lisa	CPT1	2.00	\$45.00	\$90.00	2.00	\$55.00	\$110.00	2.00	\$65.00	\$130.00	2.00	\$75.00	\$150.00
5	Lisa	CPT2	3.00	\$60.00	\$180.00	3.00	\$70.00	\$210.00	3.00	\$80.00	\$240.00	3.00	\$90.00	\$270.00
5	Lisa	CPT3	4.00	\$75.00	\$300.00	4.00	\$85.00	\$340.00	4.00	\$95.00	\$380.00	4.00	\$105.00	\$420.00
5	Lisa	CPT4	5.00	\$90.00	\$450.00	5.00	\$100.00	\$500.00	5.00	\$110.00	\$550.00	5.00	\$120.00	\$600.00

Mean CPT Session  
Totals Per Plan  
CPT Session Totals  
Per Plan

\$2,755.00  
2012.709083

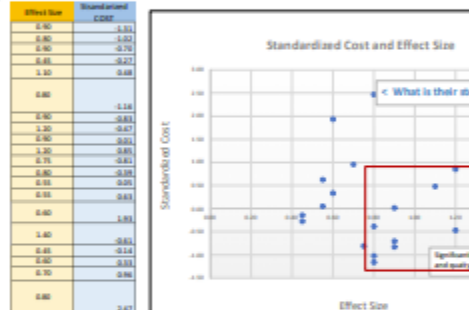
Total Plan Fees: All CPTs and all sessions

Healthplan A	Healthplan B	Healthplan C	Healthplan D	TOTAL for All Plans
Bob	\$2,755.00	\$1,450.00	\$1,450.00	\$5,655.00
Lance	\$2,755.00	\$1,450.00	\$1,450.00	\$5,655.00
Tom	\$2,755.00	\$1,450.00	\$1,450.00	\$5,655.00
Sally	\$2,755.00	\$1,450.00	\$1,450.00	\$5,655.00
Lisa	\$2,755.00	\$1,450.00	\$1,450.00	\$5,655.00
<b>TOTAL for Each Plan</b>	<b>\$26,405.00</b>	<b>\$26,405.00</b>	<b>\$26,405.00</b>	<b>\$79,215.00</b>

Mean Totals Per Plan  
Standard Deviation

\$26,405.00  
2763.47796

Standardized Average Costs				Effect Size			
Healthplan A	Healthplan B	Healthplan C	Healthplan D	Healthplan A	Healthplan B	Healthplan C	Healthplan D
Bob	\$2,755.00	\$1,450.00	\$1,450.00	0.91	0.90	0.91	0.90
Lance	\$2,755.00	\$1,450.00	\$1,450.00	0.91	0.90	0.91	0.90
Tom	\$2,755.00	\$1,450.00	\$1,450.00	0.91	0.90	0.91	0.90
Sally	\$2,755.00	\$1,450.00	\$1,450.00	0.91	0.90	0.91	0.90
Lisa	\$2,755.00	\$1,450.00	\$1,450.00	0.91	0.90	0.91	0.90
<b>TOTAL for Each Plan</b>	<b>\$26,405.00</b>	<b>\$26,405.00</b>	<b>\$26,405.00</b>	<b>0.91</b>	<b>0.90</b>	<b>0.91</b>	<b>0.90</b>



### The following is a simulation

Purple cells are number that come from the providers' EHR and drive the calculations.  
The light red Salmon color are reimbursement rates that are entered for Tableau for Healthplan A to represent what providers are paid.  
You can change the values marked in light yellow to see and test the results.  
The Effect Size is a number that will come from the current Tableau dashboard. It is a calculation.  
We will want a filter for diagnosis (This is complex and we would do later)  
Each data point (X,Y) will be a pair for the healthplan.  
The volume of each data point will be the number of appointments.

#### Data pulled from EHR, providers' EHR

Number of sessions.  
Number of CPT codes.  
Health insurance.

#### Data entered into Tableau

CPT code number (90791, 90827, 90834, 90832, 90809, 90840, etc.)  
CPT reimbursement by Healthplan  
Dates of service  
Provider ID  
Patient ID

#### Independent Variables

Healthplan ID  
CPT codes  
CPT codes reimbursement rates  
Providers ID/names  
Patients ID/Names  
Date of service (DOS)

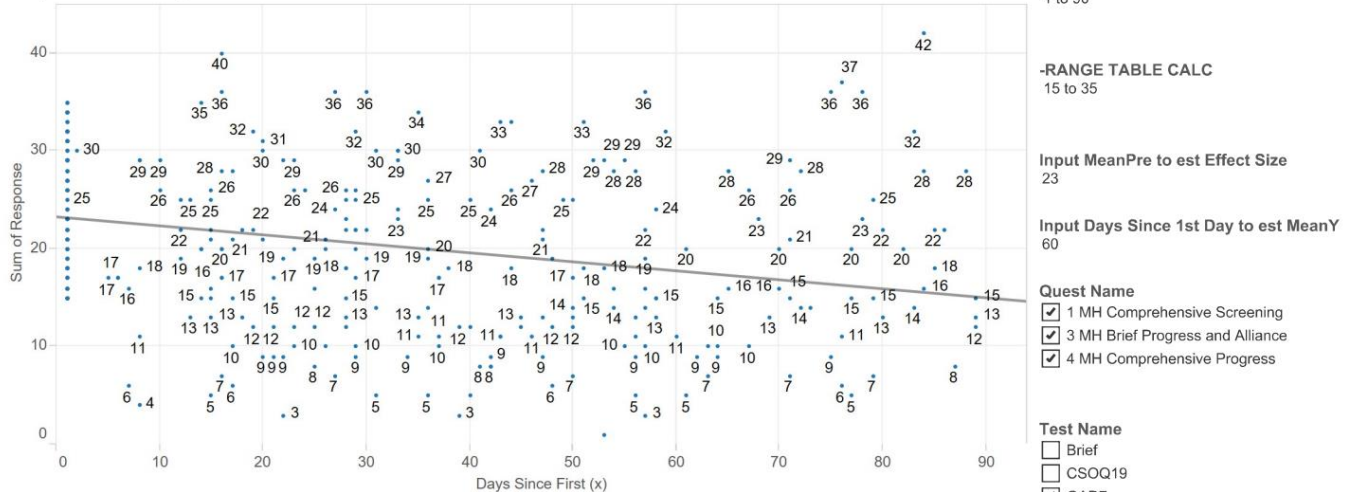
#### Dependent Variables

Effect Size  
Standardized costs

## Population Variance Driving Quality – Rate of Change, Effect Size & Reliable Change Index

The following images illustrate how self-service visual analytics can create measurable business benefits and superior patient outcomes.

SW plot with range



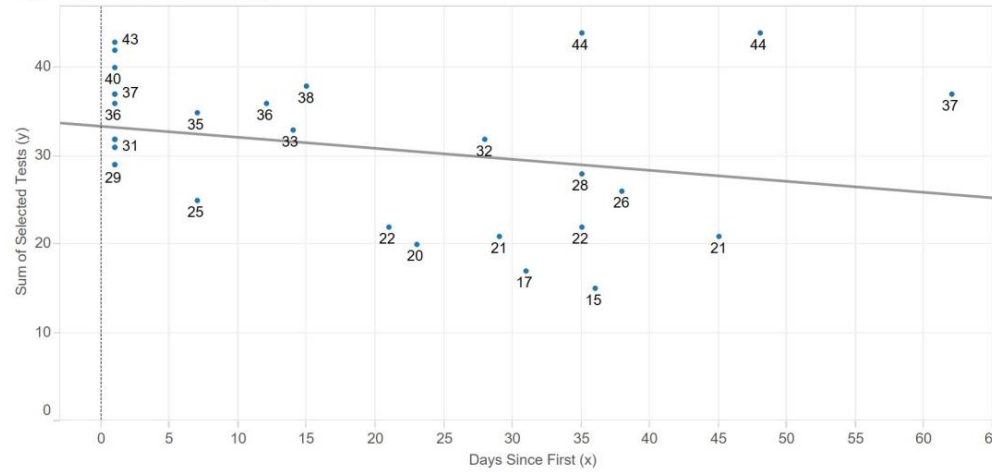
SW Calcs with range

1. Rate of Change ( m) along Days Since First (x)	-9.20%
2. Y intercept ( B) along Days Since First (x)	23.2
Input MeanPre to est Effect Size	23.0
3. MeanPre along Days Since First (x)	21.1
Input Days Since 1st Day to est MeanY	60.0
4. MeanY along Days Since First (x)	17.7
5a. SD of Patients' Scores on First Day	6.1
5b. SE	0.5
6a. (MeanPre - MeanY)/SD along Days Since First (x)	0.6
6b. AVE along Days Since First (x)	24.4
7a. Number of subjects	180.0
7b. Adj for Effect Size (1-(3/4n-5))	1.0
8. Effect Size (d) along Days Since First (x)	0.6
9. Reliable Change Index	1.2

SubjectID (SOSubjects)1	<input checked="" type="checkbox"/> 131438 <input checked="" type="checkbox"/> 131448 <input checked="" type="checkbox"/> 133488 <input checked="" type="checkbox"/> 134524 <input checked="" type="checkbox"/> 134526 <input checked="" type="checkbox"/> 135552 <input checked="" type="checkbox"/> 135553 <input checked="" type="checkbox"/> 135570
CustomerID (Customers)1	<input checked="" type="checkbox"/> 1002 <input checked="" type="checkbox"/> 1004 <input checked="" type="checkbox"/> 1005 <input checked="" type="checkbox"/> 1007 <input checked="" type="checkbox"/> 1010 <input checked="" type="checkbox"/> 1011 <input checked="" type="checkbox"/> 1012

## Individual Provider Variance Driving Quality – Rate of Change, Effect Size & Reliable Change Index

LQ Scatter Plot with Range



Days Since First (x)  
1 to 74

-RANGE TABLE CALC  
29 to 50

Input Days Since 1st Day to est MeanY  
40

Input MeanPre to est Effect Size  
33

QuestName  
☒ Comprehensive Mental Health Screening  
☒ MH Brief Progress and Alliance (1)

TestName  
☐ Alliance and Satisfaction  
☐ Clinical Screening and Outcome Questio...  
☐ Diet and Exercise  
☒ GAD7 Generalized Anxiety Disorders  
☐ How Difficult  
☐ Mood Disorder Questionnaire (MDQ13)  
☒ PHQ9 Physical Health Questionnaire (De..  
☐ PHQ15 Physical Health Questionnaire (D..  
☐ Substance Use (CSOQ)

PatientID

☒ 20  
☒ 29  
☒ 30  
☒ 32  
☒ 34  
☒ 35  
☒ 36  
☒ 43  
☒ 45

UserID

☒ 4  
☒ 8  
☒ 11  
☒ 12  
☒ 13  
☒ 14

LQ Calcs with Range

1. Rate of Change (m) along Days Since First (x)	-12.47%
2. Y intercept (B) along Days Since First (x)	33.34
Input MeanPre to est Effect Size	33.00
3. MeanPre along Days Since First (x)	29.23
Input Days Since 1st Day to est MeanY	40.00
4. MeanY along Days Since First (x)	28.35
5a. SD of Patients' Scores on First Day	4.80
5b. SE of Patients' Scores on First Day	0.86
6a. (MeanPre - MeanY)/SD along Days Since First (x)	0.18
6b. AVE along Days Since First (x)	34.69
7a. Number (n) of Patients in Range	31
7b. Adj for Effect Size (1-(3/4n-5))	0.97
8. d along Days Since First (x), PatientID	0.18
9. Reliable Change Index along Days Since First (x), PatientID	2.39

## LightQ EHR Analyze Patient Progress

Dashboard > Patient Info > Analyze

### Analyze

CREATE PDF

✓ Linear Regression

Test Data

GAD7 Generalized Anxiety Disorders

Days From First Measurement(0 is first day)

0

Timespan to Measure (Days)

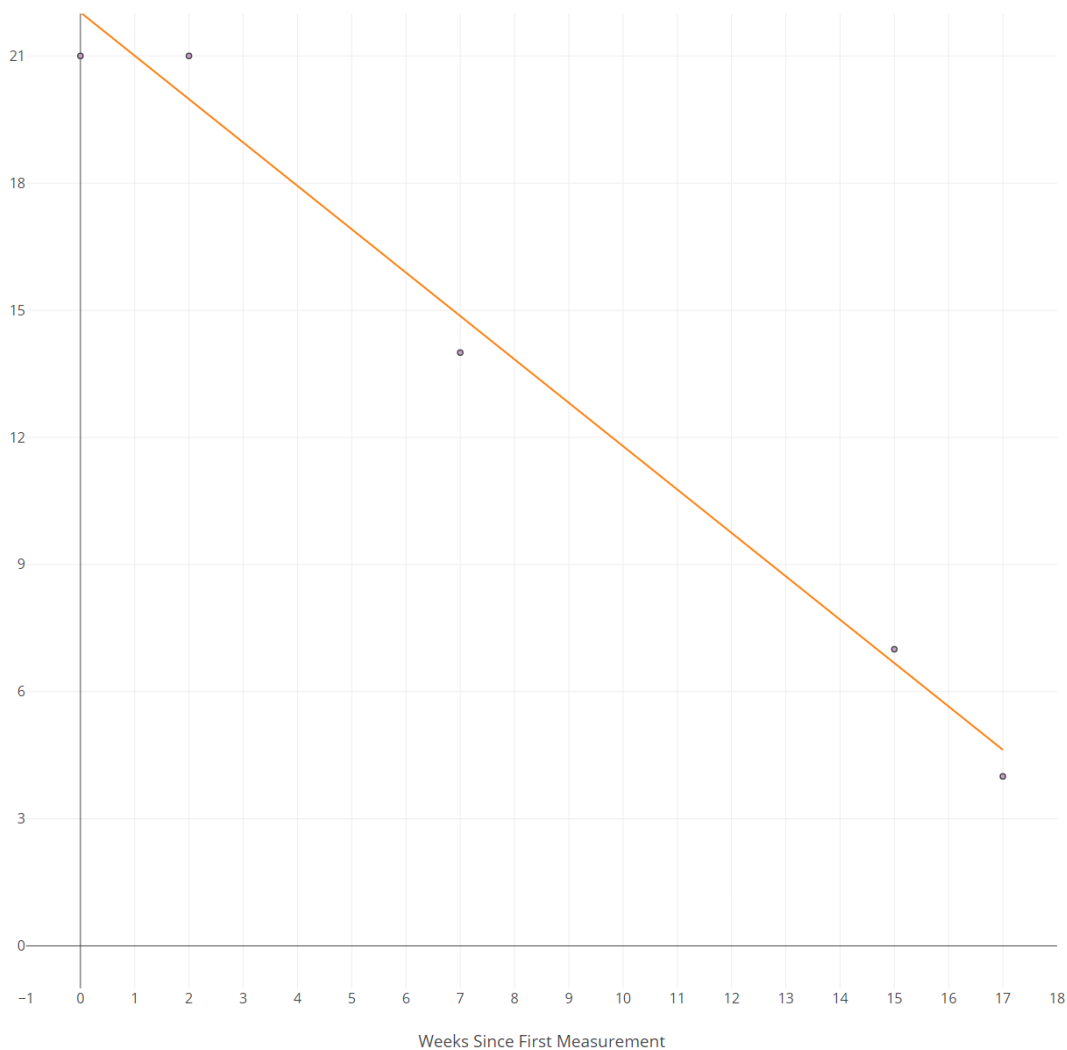
200

FETCH DATA

Trendline slope: 14.38 %.

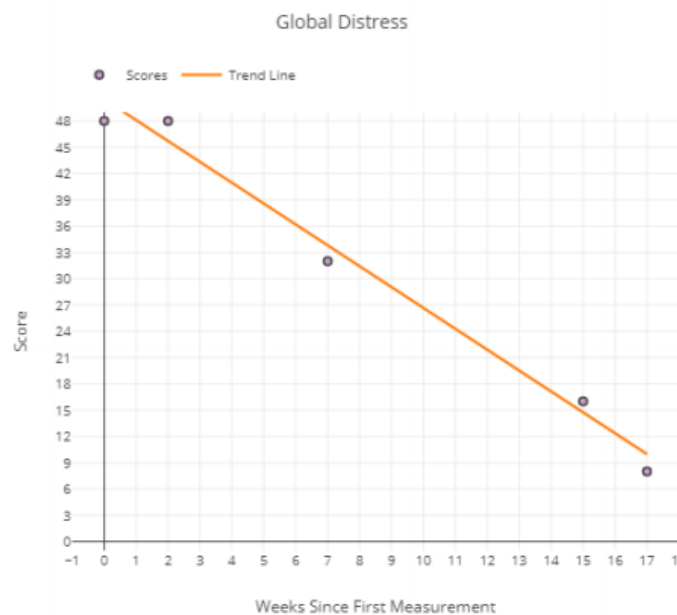
• Scores — Trend Line

GAD7 Generalized Anxiety Disorders



## Individual Patient Variance – Reveals Treatment is On-Track or Off-Track

Patient Name: Mike Rennoc Date of Birth: 10/13/1992  
Patient Progress And Coordinated Care Chart Note  
Gender: Male  
Health Record Number: 1000011  
Provider Name: Test Demo  
Primary Diagnosis: F321 - Major depressive disorder, single episode, moderate  
Secondary Diagnosis:  
Prognosis: Very Good  
Patient Status: Stable  
Progress: Good  
Date of Initial Test 9/24/2017 Trendline: 33.48 %.



**Note:**  
This patient has been in treatment for approximately 17 weeks. His rate of improvement is

excellent. His initial scores were in the severe range and are now in the low clinical range. He wishes to continue in therapy while reducing his medications. I will continue to see him weekly monitoring his symptom burden so as to ensure it remains subclinical. He will consult with his physician regarding titrating off his antidepressant. At that time I will continue to see him every other week for the next two months. Then monthly for the next several months.

Date Signed: 4/15/2019  
Signed: Test Demo

## Group Provider Variance of Measurement – Reveals Actionable Opportunities

ScreeningWare Data for Providers signed up with ScreeningWare-beta: Measures in First 90 days Since 03/01/2016

Total number of providers	34.0
Total number of providers who have given initial screenings	34.0
Total number of initial screenings given	184.0
Average number of initial screenings given per provider	5.4
Standard deviation of total screenings provided	0.0
Total number of patients who have completed the initial screening only	167.0
Total number of patients who have completed 2 questionnaires (initial + 1)	11.0
Total number of patients who have completed 3 questionnaires (initial + 2)	6.0
Total number of patients who have completed 4 questionnaires (initial + 3)	0.0
Total number of patients who have completed 5 questionnaires (initial + 4)	0.0

ScreeningWare Data for Providers signed up with ScreeningWare-beta: All Measures in First 90 days

Total number of providers	59.0
Total number of providers who have given initial screenings	52.0
Total number of initial screenings given	725.0
Average number of initial screenings given per provider	13.9
Standard deviation of total screenings provided	0.4
Total number of patients who have completed the initial screening only	523.0
Total number of patients who have completed 2 questionnaires (initial + 1)	115.0
Total number of patients who have completed 3 questionnaires (initial + 2)	62.0
Total number of patients who have completed 4 questionnaires (initial + 3)	19.0
Total number of patients who have completed 5 questionnaires (initial + 4)	2.0

ScreeningWare Data for Providers Signed up with LightQ: Measures in First 90 days Since 03/01/2016

Total number of providers	32.0
Total number of providers who have given initial screenings	30.0
Total number of initial screenings given	486.0
Average number of initial screenings given per provider	16.2
Standard deviation of total screenings provided	0.4
Total number of patients who have completed the initial screening only	312.0
Total number of patients who have completed 2 questionnaires (initial + 1)	97.0
Total number of patients who have completed 3 questionnaires (initial + 2)	54.0
Total number of patients who have completed 4 questionnaires (initial + 3)	17.0
Total number of patients who have completed 5 questionnaires (initial + 4)	2.0

The table above is an example illustrating a preliminary data set for a group of providers. This illustrates naturalistic use of screening and outcome measures when frequency and the number of measures is not required.

## Individual Provider Measurement Statistics – Reveal Actionable Opportunities

### SW MODA Incentive

Total number of initial appointments (CPT 90791)	23.00
Total number of patients terminated (not seen in 8 weeks)	23.00
Percentage of patients terminated	100.00%
Total number of visits for terminated patients	99.00
Average number of visits for patients terminated	4.30
Median number of visits for terminated patients	3.00
Total number of patients offered Comprehensive Screening	14.00
Total number of patients that completed Comprehensive Screening	14.00
Percentage of patients that completed at least one follow-up measure	60.87%
Percentage completed in 1st interval	52.17%
Number completed in 1st interval	12.00
Percentage completed in 2nd interval	17.39%
Number completed in 2nd interval	4.00
Percentage completed in 3rd interval	4.35%
Number completed in 3rd interval	1.00

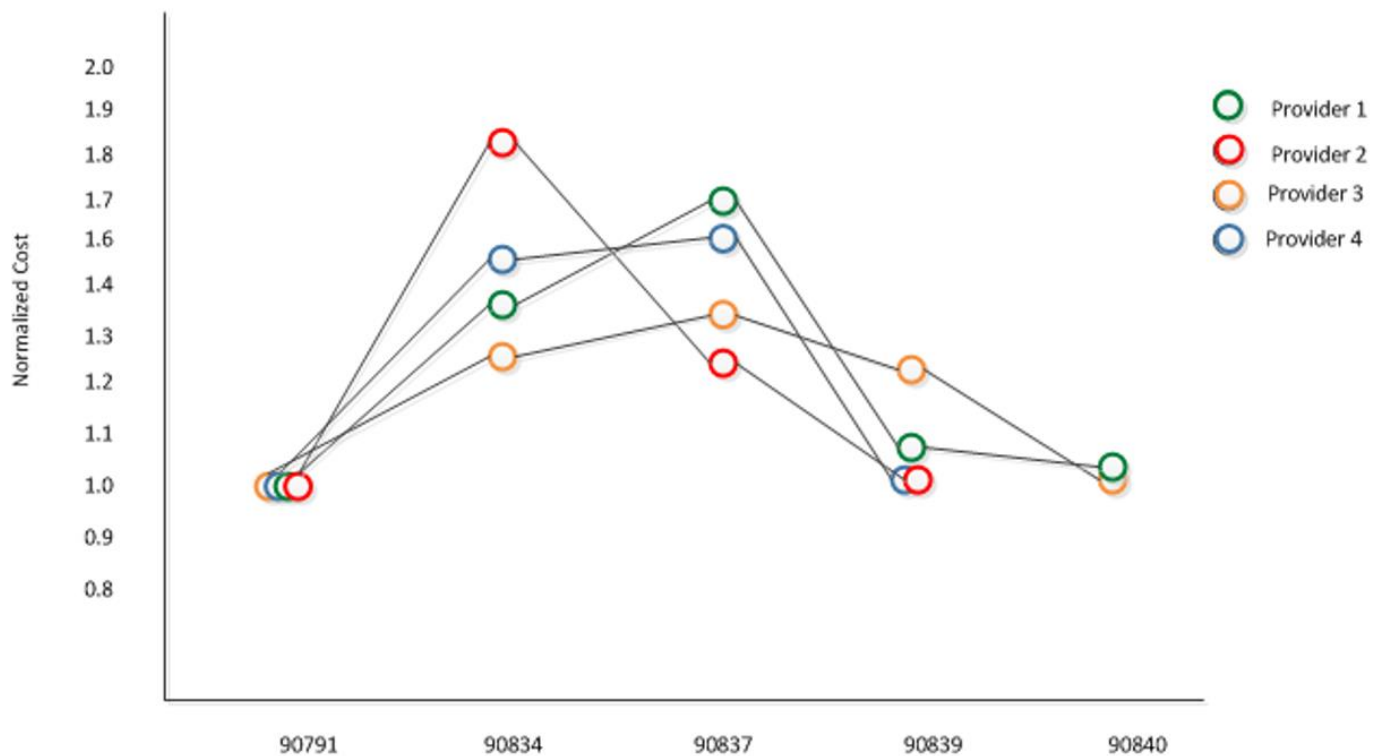
### providerkey

- ☒ 15857
- ☒ 17212
- ☒ 17746
- ☒ 17927
- ☒ 18218
- ☒ 18455
- ☒ 19459
- ☒ 19873
- ☒ 20096
- ☒ 20762
- ☒ 21682
- ☒ 22882
- ☒ 23472
- ☒ 25270

The table above is an example illustrating a preliminary data set for an individual provider. This illustrates a potential feedback system to a provider and their use of screening and outcome measures when the frequency and the number of measures is not required.

# CollaborativeCare

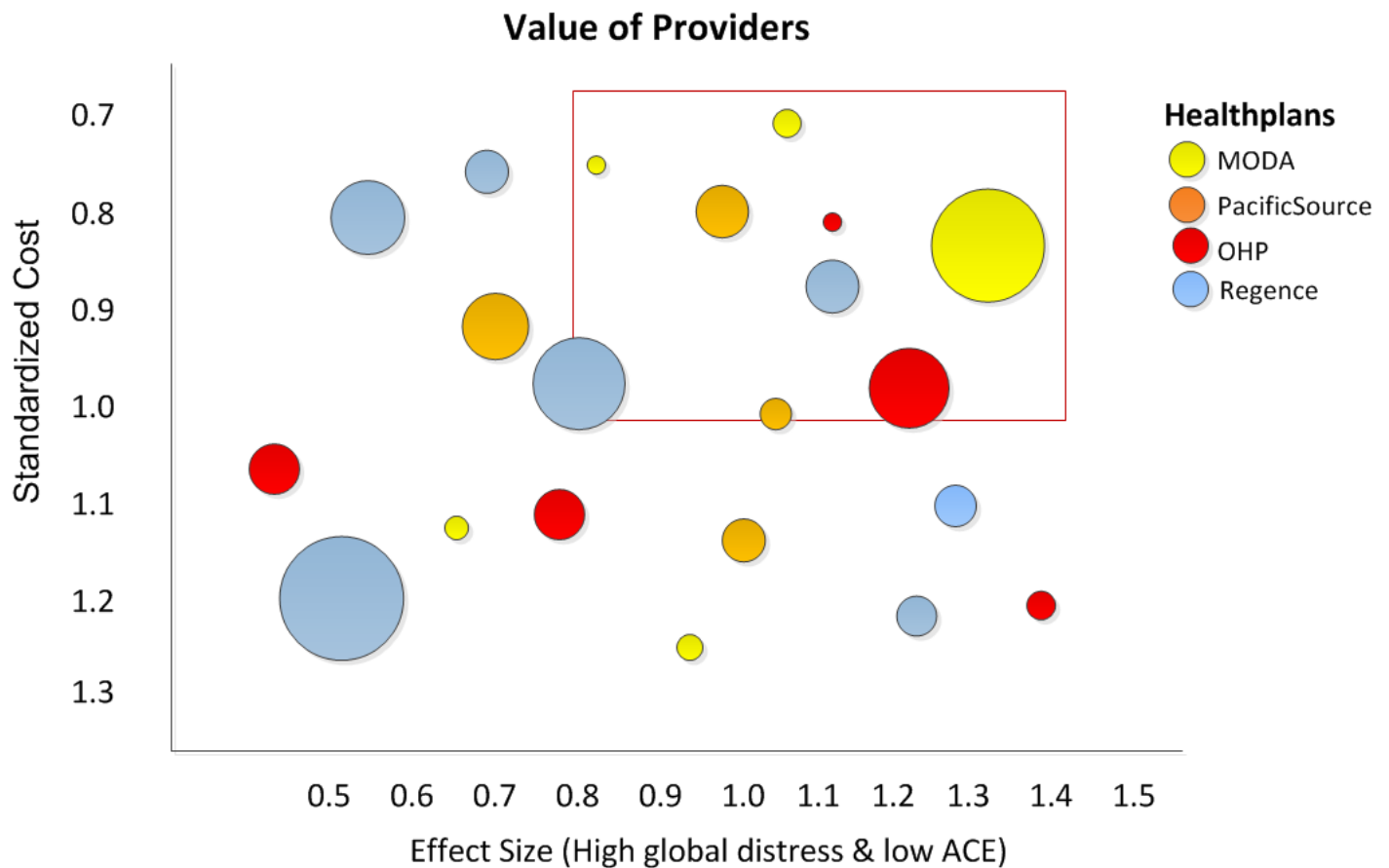
## Provider CPT Code Variance – Reveals Opportunities for clinical conversation and actional opportunities



Each colored circle represents a provider. The elevation of the circle represents the normalized cost of CPT codes reimbursed by the Healthplan for that provider. The variance depicted draws attention to areas of treatment for which conversation among providers might lead to greater efficiencies or value.

## 4. Promote affordable healthcare, while balancing spending on premiums, deductibles, and out-of-pocket costs

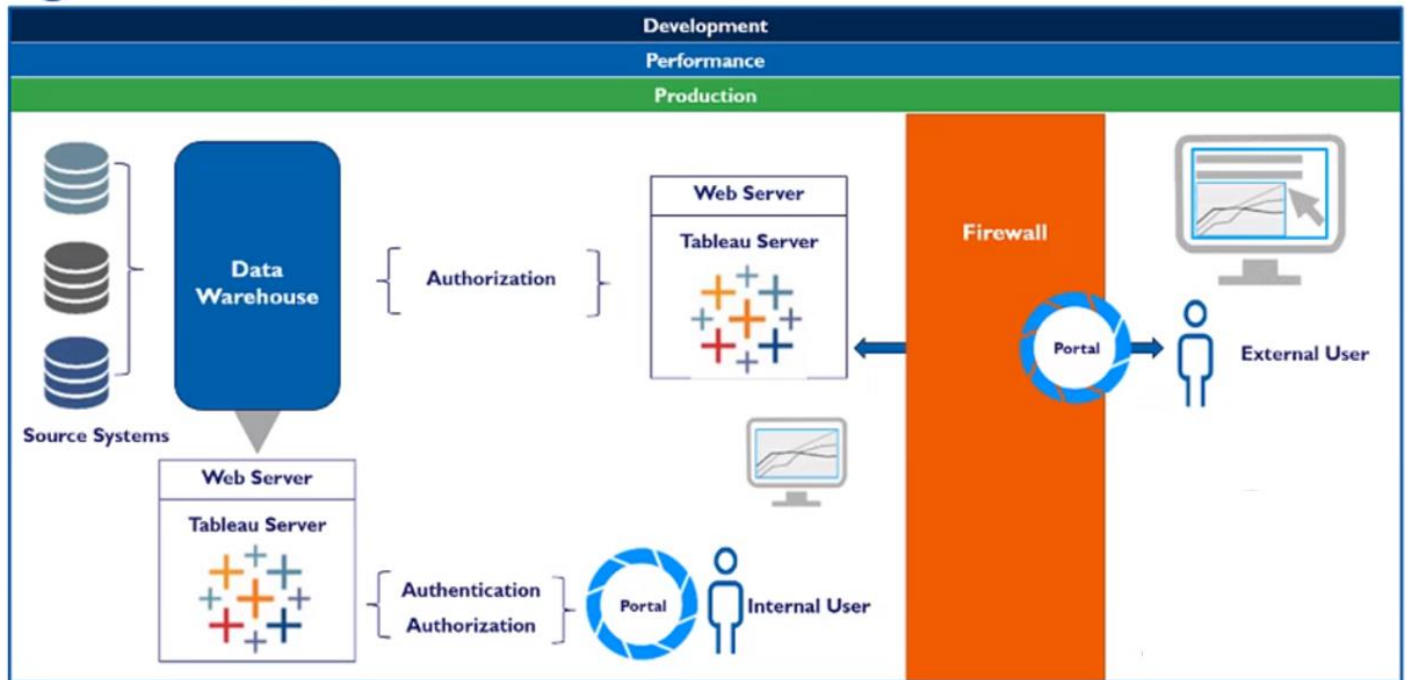
### Provider Quality Among 4 Healthplans – Cost, Effect Size, Volume of Care and Value



Each circle represents a provider. The size of the circle represents the number of patients the provider treats. The color represents the patients in a Healthplan. The effect size is the number of standard deviations of change. And effect size of 0.8 is consider significant. The standardized cost is degree to which the reimbursements for care deviates from the average of the total reimbursement. Effect size in this case mix is derived from global distress and adverse childhood experience questionnaires.

# CollaborativeCare

## High Level Visual Analytic Security Architecture



# *CollaborativeCare*

## CollaborativeCare Technology and Related Costs

<b>Software</b>	\$250/month
<b>Secure Server</b>	\$625/ month
<b>3<sup>rd</sup> party HIPAA Assurance</b>	\$200/month
<b>Liability Insurance</b>	\$400/month for \$2,000,000
<b>Software Engineer</b>	\$180/hour
<b>Tableau Analyst</b>	\$180/hour