

# From Data to Action: Key Steps and Strategies for Using Data to Improve Care







#### **Webinar Reminders**

- 1. Everyone is muted.
  - Press \*7 to unmute and \*6 to mute yourself.
- 2. Remember to chat in questions!
- 3. Webinar is being recorded and will be posted and sent out via email





#### **Today's Focus**

| 12:00-<br>12:05  | Welcome and Overview (5 mins)   |
|------------------|---|
| 12.05            | From Data to Action: Key Steps and Strategies for Using Data to Improve Care        |
| 12:05-<br>12:45  | <ul> <li>Boris Kalikstein, Consultant</li> <li>Pivotal Moment Consulting</li> </ul> |
| 12:45-<br>1:00pm | Questions, Next Steps & Closing (15 mins)   |
|                  |   |





#### **Voices on the Webinar**



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#### Low-Intensity Track: 4 Part Data for Pop. Health Series

Part 1: Building a
Data-Driven Culture
for Pop. Health
Management

- July 19, 2017 @12-1pm
- Faculty: SA Kushinka, CCI & Jerry Lassa, Data Matt3rs

Part 2: Design
Thinking for Data
Visualization

- July 27, 2017 @ 12-1pm
- Faculty: Andrew Frueh, Health Catalyst

Part 3: Tableau in Action

- August 10, 2017 @ 2-3pm
- Faculty: Dr. Jason Cunningham, West County Health Centers

Part 4: From Data to Action: Key Steps and Strategies for Using Data to Improve Care

- August 17, 2017 @ 12-1pm
- Faculty: Boris Kalikstein, Pivotal Moment Consulting





DATA VISUALIZATION



# FROM DATA TO ACTION

# KEY STEPS AND STRATEGIES FOR USING DATA TO IMPROVE CARE

**Boris Kalikstein** 

**Pivotal Moment Consulting** 



#### GOALS FOR IMPROVEMENT

✓ EMR

✓ Data

✓ Dashboard

SO WHAT?!



#### DATA TO ACTION

"The numbers have no way of speaking for themselves. We speak for them. We imbue them with meaning." – Statistician Nate Silver

Data is *bits* of information

Processed → Interpreted → Organized → Structured → Presented

Information provides context for data



#### DATA RICH BUT INFORMATION POOR

- Having an EMR and collecting data does not translate into action
- EMRs
  - Thousands of data points
  - Visually aggregates the data points on EMR screens
  - Providers and teams mentally evaluate the data to convert it into information that drives patient care



#### THE GOAL OF A DATA DRIVEN CULTURE

THE SAME THING --- MAKE A DIFFERENCE IN PATIENT LIVES

So why do I need data?

Why do I need information?



#### DATA DRIVEN OUTREACH

| Sunday  | Monday                                       | Tuesday                               | We dnes day | Thursday | Friday | Saturday |
|---------|--|---------------------------------------|-------------|----------|--------|----------|
| Week #1 | Prenatal<br>Chronic Pain<br>Pap Mngt<br>CM D | CM Dep<br>BHP Dep<br>Blue PR Dep      |             |          |        |          |
| Week #2 | ADHD<br>Coumadin<br>Diabetes(half)           | CM Dep<br>BHP Dep<br>Green PR<br>Dep  |             |          |        |          |
| Week#3  | Prenatal<br>HTN<br>Missing Pap               | CM Dep<br>BHP Dep<br>Red PR Dep       |             |          |        |          |
| Week#4  | Coumadin<br>Diabetes(half)                   | CM Dep<br>BHP Dep<br>Orange PR<br>Dep |             |          |        |          |
|         |  |                                       |             |          |        | _        |





### DATA DRIVEN OUTREACH

| Sunday | Monday                                       | Tues day                              | Weds Friday Saturday |
|--------|--|---------------------------------------|----------------------|
| Week#1 | Prenatal<br>Chronic Pain<br>Pap Mngt<br>CM D | CM Dep<br>BHP Dep<br>Blue PR Dep      |                      |
| Week#2 | ADHD<br>Diabetes(half                        | CM Dep<br>BHP Dep<br>Green PR<br>Dep  |                      |
| Week#3 | Prenatal<br>HTTI<br>Missing Pap              | CM Dep<br>BHP Dep<br>Red PR Dep       |                      |
| Week#4 | Coumadin<br>Diabotos(adi)                    | CM Dep<br>BHP Dep<br>Orange PR<br>Dep |                      |
|        |  |                                       |                      |





#### DATA DRIVEN REGISTRY

| High Risk          |            |       |             |        |         |         |              |          |            |            |   |
|--------------------|------------|-------|-------------|--------|---------|---------|--------------|----------|------------|------------|---|
| Last Name          | First Name | DOB   | Visit       | BP Sys | BP Dias | Tobacco | Eye Exam     | SM Goal  | Foot Exam  | LDL Date   | LDL A1c Date Value                          |
|                    | Bonnie     | /1952 | 11/13/2008  | 122    | 80      | Current | 08/01/2007   | 11/13/08 | 05/15/2008 | 04/03/2008 | 59  |
| <b>Group Visit</b> | No         |       |             |        |         |         |              |          |            |            |   |
|                    |            |       |             |        |         |         |              |          |            |            | 11/13/2008 7.80                             |
|                    |            |       |             |        |         |         |              |          |            |            | 09/04/2008 8.00<br>07/17/2008 8.00          |
|                    | Angelica   | /1975 | 03/26/2009  | 115    | 69      | Never   |              | 12/11/08 | 03/26/2009 | 02/15/2008 |   |
| Group Visit        | _          |       |             |        |         |         |              |          |            |            |   |
|                    |            |       |             |        |         |         |              |          |            |            | 03/26/2009 8.90                             |
|                    |            |       |             |        |         |         |              |          |            |            | [12/11/2008 <u>9.50</u><br>[10/03/2008 8.60 |
|                    |            |       | (00,000,000 |        |         |         | D. 100 100 0 |          |            |            |   |
|                    | Elva       | 1942  | 02/12/2009  | 130    | 64      | Never   | 01/28/2008   | 2/12/09  | 12/11/2008 | 02/12/2009 | 65  |
| Group Visit        | Yes        |       |             |        |         |         |              |          |            |            | 02/12/2009 7.60                             |
|                    |            |       |             |        |         |         |              |          |            |            | 12/11/2008 8.80                             |
|                    |            |       |             |        |         |         |              |          |            |            | 11/13/2008 10.30                            |
|                    | Emilio     | /1937 | 03/19/2009  | 124    | 76      | Never   | 10/10/2008   | 2/12/09  | 03/19/2009 | 03/20/2009 | 88  |
| <b>Group Visit</b> | Yes        |       |             |        |         |         |              |          |            |            |   |
|                    |            |       |             |        |         |         |              |          |            |            | 03/19/2009 7.00<br>02/12/2009 7.70          |
|                    |            |       |             |        |         |         |              |          |            |            | 12/19/2003 7.60                             |





#### DATA DRIVEN REGISTRY

| High Risk          |            |                  |                |         |            |          |            |            |              |       |
|--------------------|------------|------------------|----------------|---------|------------|----------|------------|------------|--------------|-------|
| Last Name          | First Name | DOB Visit        | BP Sys BP Dias | Tobacco | Eye Exam   | SM Goal  | Foot Exam  | LDL Date   | LDL A1c Date | Value |
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| <b>Group Visit</b> | No         |                  |                |         |            |          |            |            |              |       |
|                    |            |                  |                |         |            |          |            |            | 11/13/2008   |       |
|                    |            |                  |                |         |            |          |            |            | 09/04/2008   |       |
|                    |            |                  |                |         |            |          |            |            | 07/17/2008   | 8.00  |
|                    | Angelica   | /1975 03/26/2009 | 115 69         | Never   |            | 12/11/08 | 03/26/2009 | 02/15/2008 | 90           |       |
| <b>Group Visit</b> | Yes        |                  |                |         |            |          |            |            |              |       |

| Last Name   First Name   DOB | VISIT        | BP Syst  | Rh Dias  | Topacco    | Eye Exam      | SM Goal       | Foot Exam     | LDL Date      | LDL      | A1C Date     | Value                |
|------------------------------|--------------|----------|----------|------------|---------------|---------------|---------------|---------------|----------|--------------|----------------------|
|                              | If more than | lf above | If above | If current | If not within | If not within | If not within | If not within | If above | If not       | If above             |
|                              | six months,  | 130,     | 80, appt | smoker,    | one year,     | one year,     | one year,     | one year,     | 130,     | within 3     | 9, appt              |
| D: 1 4                       | make appt.   | appt     | every    | CM to      | put on list   | CM to set     | make appt     | make appt     | appt     | months,      | every                |
| Diabetes                     | Otherwise,   | every    | month    | review for | for DM Eye    | goal with     |               |               | every    | make appt    | month.               |
|                              | see BP, LDL  | month    |          | Tobacco    | Exam GV       | patient       |               |               | month.   | (6 months    | lf 7.0 -             |
| Planned Care                 | & A1 c rules |          |          | Cessation  |               |               |               |               | lf 100-  | okay if last | 9.0, appt            |
| Flaimed Care                 |              |          |          | counseling |               |               |               |               | 130,     | value less   | every 3              |
|                              |              |          |          |            |               |               |               |               | appt     | than 7.0)    | months.<br>If below  |
| Ruler                        |              |          |          |            |               |               |               |               | every 3  |              |                      |
| rtarer                       |              |          |          |            |               |               |               |               | months   |              | 7.0, appt<br>every 6 |
|                              |              |          |          |            |               |               |               |               |          |              | months               |
|                              |              |          |          |            |               |               |               |               |          |              | months               |

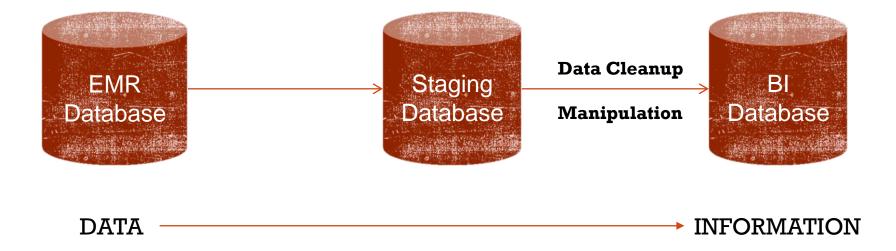




#### TRANSFORMING DATA INTO INFORMATION

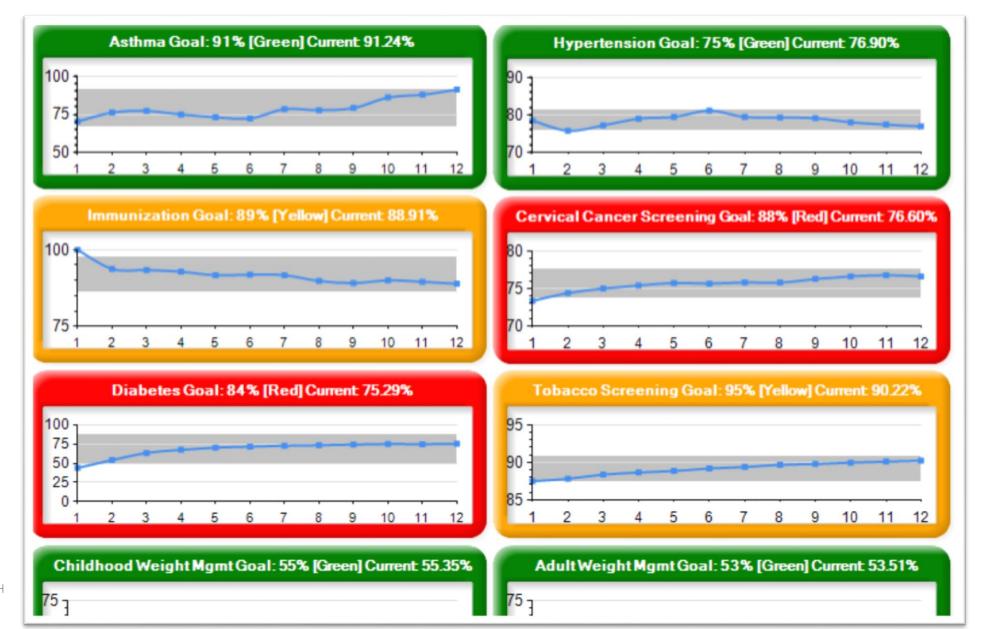


#### WAREHOUSING





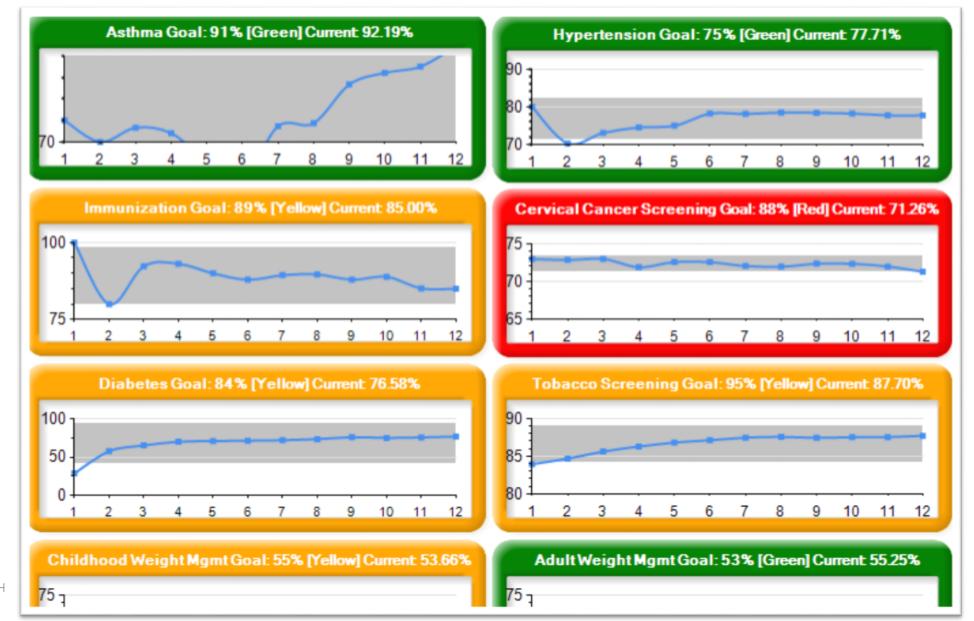
#### START WITH THE BIG PICTURE







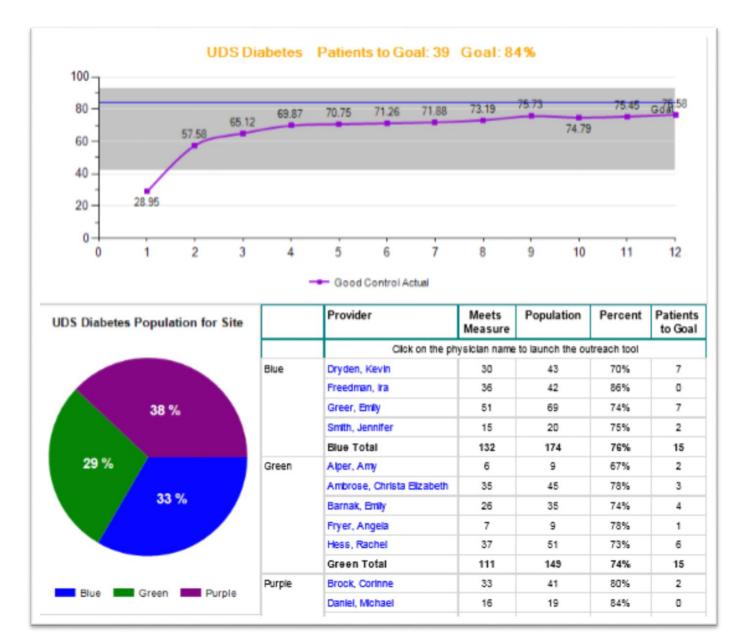
#### CASCADE THE MESSAGE







#### MAKE IT MANAGEABLE







### MAKE IT ACTIONABLE

| Patient Details  | Visits and Appointments   | Outreach Details  | Patient Care Alerts  |
|--|---|---|--|
| Kevin  | <u> </u>  |   |  |
| DOB: Age: 49 Preferred Contact Method: Home Phone: Day Phone: Alternate Phone: Secondary Phone: Email: Cell Phone: Language:English ACO: N Medicaid Nbr: My CLINICA Connection Status: Enrolled OB Status: Groups: | PCP: Dryden, Kevin PDP: Missing PDP Hygienist:  Last Visit: 11/18/2015 Dryden, K-DIA Last WCC: Payer: Medicaid FQHC Next appt:  Last Dental Visit: Next Dental Visit: | Clinical Date Reviewed:12/17/2015 Comments: Lym informing pt to RCTC and schedule apt for DM. IH Call Attempt:2nd Call Call Status:Left message  Dental Date Reviewed: Comments: Call Attempt: Call Status: | Clinical Past Due - Diabetes Eye Exam Past Due - Diabetes Foot Exam Past Due - High Blood Pressure > = 140/90 (Diabetes,) Past Due - Last A1c > 9 on 11/18/2015 Past Due - LDL (Cholesterol) Lab Past Due - Tdap/TD Vaccine ACO Care Team Score is 3  Dental |





## CLOSE THE LOOP

| Person<br>Nbr  | Patient Name   | ne PCP/ Statu                              |   | us Phone Number                        |                        | Age/ DOB                                  | Gender  | Last Visit   | ACC        |
|--|--|--|---|--|------------------------|---|---|--|------------|
|  |  |  | Status: A<br>Payer: M<br>Group Vi       | edicaid FQHC<br>sits:<br>CA Connection |                        | 49 Year(s)                                | М   | 11/18/2015 Dryden, K<br>Last WCC:<br>CarePlan Rvw:   | х          |
| Alerts   |  |  |   | Appts                                  |                        | A   | ctive Proble  | m List   |            |
| Past Due -<br>Past Due -<br>Past Due -<br>Past Due -<br>Past Due - | Diabetes Eye Ex<br>Diabetes Foot E:<br>LDL (Cholesterol<br>Last A1o > 9 on<br>High Blood Press<br>Immunizations (<br>Team Score is 3 | kam<br>) Lab<br>11/18/2015<br>sure > = 140 | /90 (Diabetes, )<br>dap/TD Vaccine, )   |  |                        | 11<br>00<br>00<br>00                      | 1/18/2015 -<br>3/17/2014 -<br>3/17/2014 -<br>3/17/2014 -<br>3/17/2014 - | Alcohol-induced chronic panor<br>Continuous chronic alcoholisn<br>Alcoholism - 303.90<br>Iron deficiency anemia - 280.9<br>Methamphetamine abuse - 30<br>Panoreatitis - 577.0<br>Diabetes type 2, uncontrolled - | 5.70       |
| Active Me  | dications  |  |   |  |                        |   |   |  |            |
| Start Date   | Stop Date  | Prescribed<br>Elsewhere                    | Brand Name                              | Generic Name                           | Dose                   | Instructions                              |   |  |            |
| 12/21/2015   | 12/20/2016   |  | SURE COMFORT                            | PEN NEEDLE, DIABET                     | 1C 30 gauge X<br>5/16" | Inject 10 U of Leve                       | emir SQ HS  |  |            |
| 12/21/2015   | 12/19/2016   |  | TRUETRACK<br>TEST STRIP                 | BLOOD SUGAR<br>DIAGNOSTIC              |                        | use 1 Strip by In V<br>blood glucose      | ftro route 1  | - 3 times every day as needed  | to monito  |
| 12/21/2015   | 12/14/2016   |  | THIN LANCETS                            | LANCETS                                |                        | inject by Misc.(Not<br>testing blood sug: |   | nbo Route) route 1-2 times ev  | ery day fo |
| 12/03/2015   | 05/29/2016   |  | WAVESENSE<br>PRESTO                     | BLOOD-GLUCOSE ME                       | TER                    | take 1 by Injection<br>sugar TID          | route 3 time  | es every day for 365 days Chec   | k blood    |
| 11/18/2015   | 11/11/2016   |  | LEVEMIR<br>FLEXTOUCH                    | INSULIN DETEMIR                        | 100 unit/mL (3<br>mL)  | inject 10 Unit by s                       | ubcutaneou  | s route every morning  |            |
| 11/18/2015   | 11/11/2016   |  | LISINOPRIL                              | LISINOPRIL                             | 5 mg                   | take 1 tablet by or                       | al route eve  | y day  |            |
| 11/18/2015   | 11/11/2016   |  | NOVOLOG<br>FLEXPEN                      | INSULIN ASPART                         | 100 unit/mL            | inject by subcutan<br>dosing requires in  |   | per prescriber's instructions. Ir<br>ion.  | nsulin     |
| 06/05/2015   | 06/19/2016   |  | TRUETRACK<br>BLOOD<br>GLUCOSE<br>SYSTEM | BLOOD-GLUCOSE ME                       | TER                    | use 1 by Topical r                        | oute every d  | ay for glucose monitoring  |            |
| Diabetes - F   | •  | m Foot S                                   | Evam Ado (I act 2                       | 1                                      |                        |   |   |  |            |
| 140 8  | Diastolic Eye Ex   | am Foot E                                  | 11/18/2015<br>03/10/2015<br>08/14/2014  | - 11.5<br>- 14.6                       |                        |   |   |  |            |
| Group Visit  |  |  |   |  |                        |   |   |  |            |
| Open Refer   | ente   |  | Future L                                | -h-                                    |                        | Diagnosti                                 |   |  |            |





#### WHAT DOES IT TAKE?

#### **NOT** A BETTER EMR!

#### NOT IT STAFF!

- SQL developers / Analysts
- Executive buy-in
- Clinical leadership

- Prioritization of where to start
- Accountability
- Iteration



#### DISCUSSION

- What are your barriers / challenges?
  - Engage leadership
  - Frontline staff
  - Current culture
- What would help you be successful?
- How will you make it actionable?
  - Would someone know what do to by looking at it?



# QUESTIONS?

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#### Upcoming CCI Webinar & Workshop

Effective Communication
Strategies for Strengthening
Patient-Clinician Relationships

**Webinar:** August 29, 11:00 am – 12:00 pm

Workshop: September 7, 9:30 am – 4:00 pm

**Objective:** Learn and apply techniques to discover and identify patient vulnerabilities and resilience through eliciting patient narratives and developing shared care plans

**Open To:** Clinicians and members of their care team. Participants should plan to attend both the webinar and workshop



Limited 40 spots available Register separately ASAP:

Webinar: Register <u>here</u> Workshop: Register <u>here</u>



#### **CONTACT INFORMATION**

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THANK YOU!