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Accountable
Health

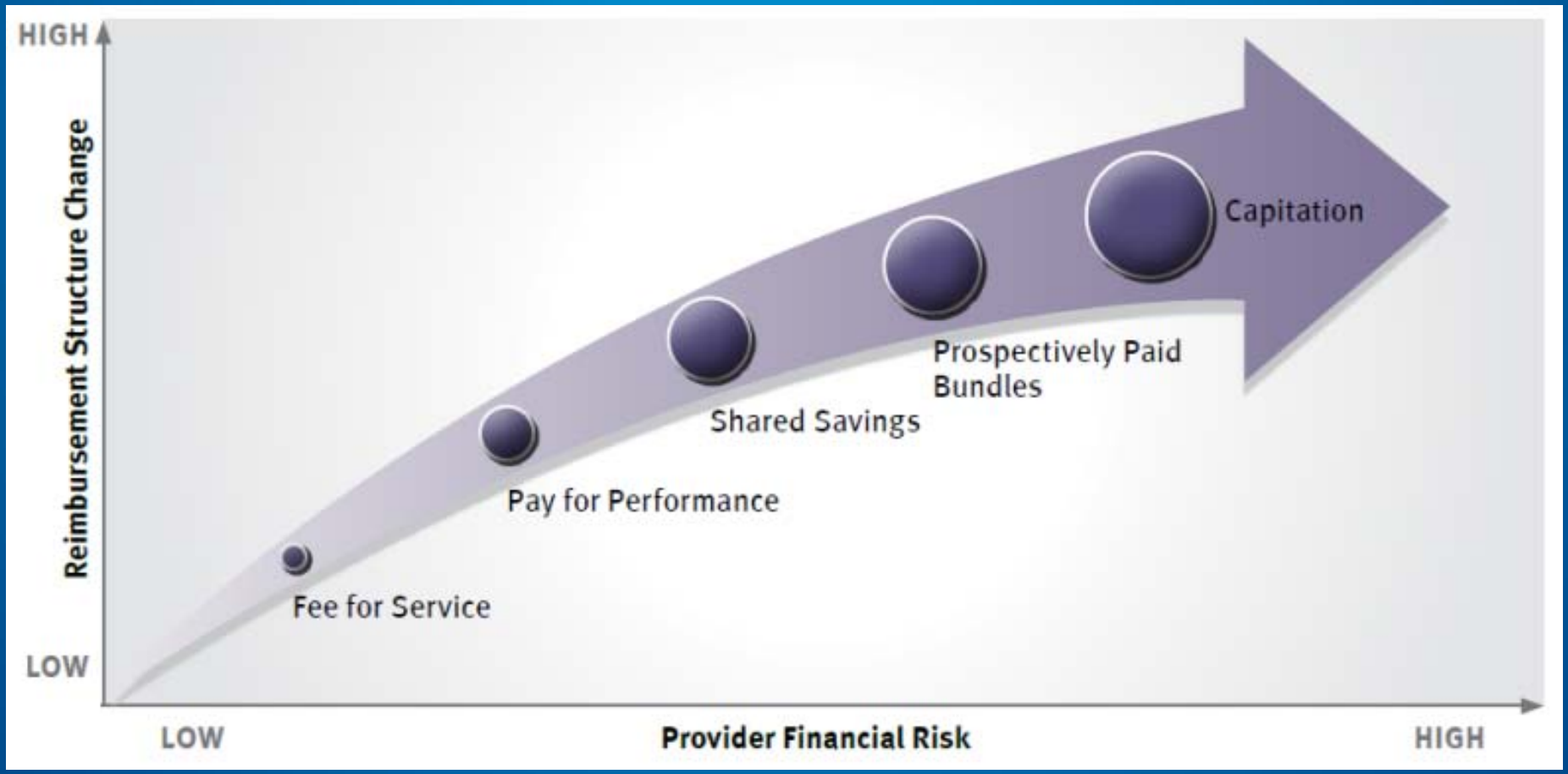
Provider Based Population Health: No need to reinvent the wheel

The Triple AIM

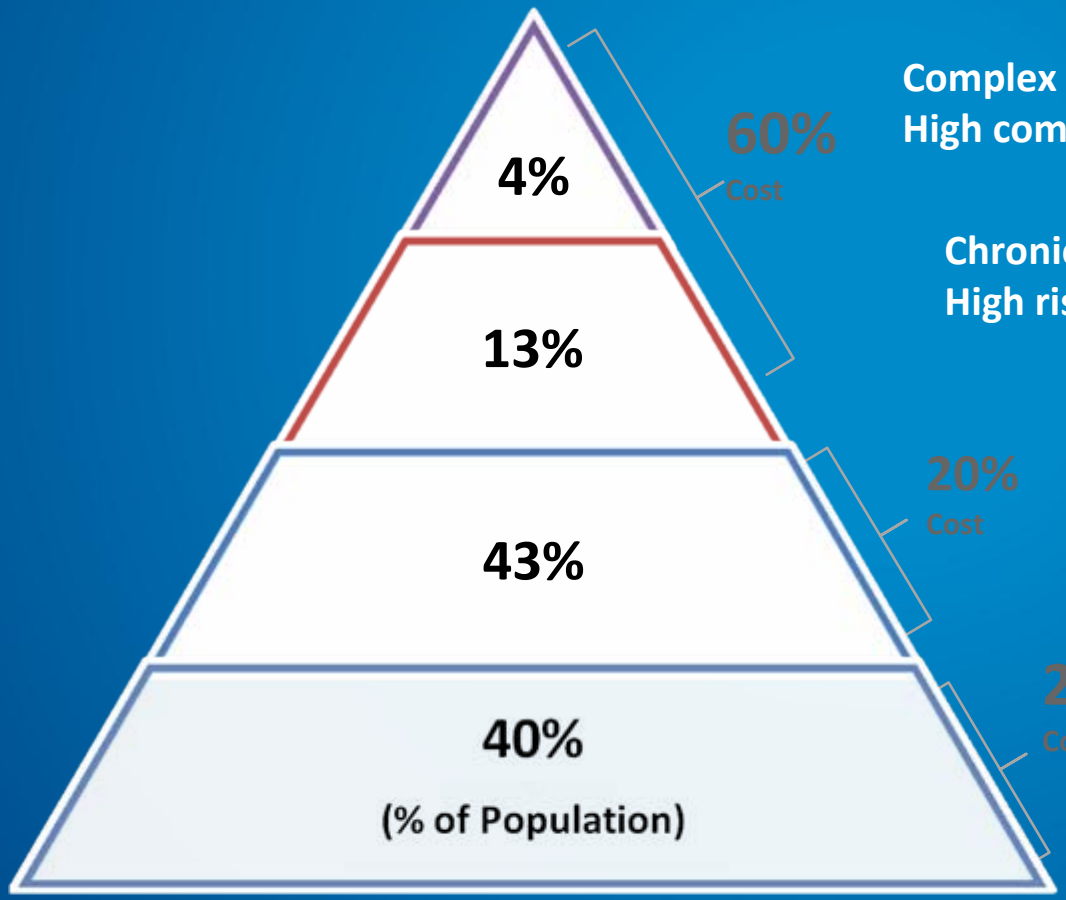
"Improving the US health care system requires simultaneous pursuit of three aims: improving the experience of care, improving the health of populations, and reducing per capita costs of health care. Preconditions for this include the enrollment of an identified population, a commitment to universality for its members, and the existence of an organization (an "integrator") that accepts responsibility for all three aims for the population. The integrator's role includes at least five components: partnership with individuals and families, redesign of primary care, population health management, financial management and macro system integration."

Source - Donald Berwick, Thomas W. Nolan, John Whittington, "The Triple Aim: Care, Health and Cost", Health Affairs, Vol. 27, Number 3 (2008); p. 759 – 769.

Movement in Payment Structures From Volume to Value



Touch the most people or the most cost?



60% Cost

Complex Case Management
High complexity patients

Chronic Condition Management
High risk patients

20% Cost

Selt-treatment
Patients with moderate risk

20% Cost

Wellness & Prevention
Patients with low risk

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Source: Kaiser Permanente and La Fe Hospital data

Population Health Alliance

- Formed in 1999 as the Disease Management Association of America
- Industry group with diverse membership
- 501-c6
- Publish consensus recommendations

PHA publications

- Outcomes Guidelines Report, Volume 6, 2015
- A Population Health Guide for Primary Care Models, 2012

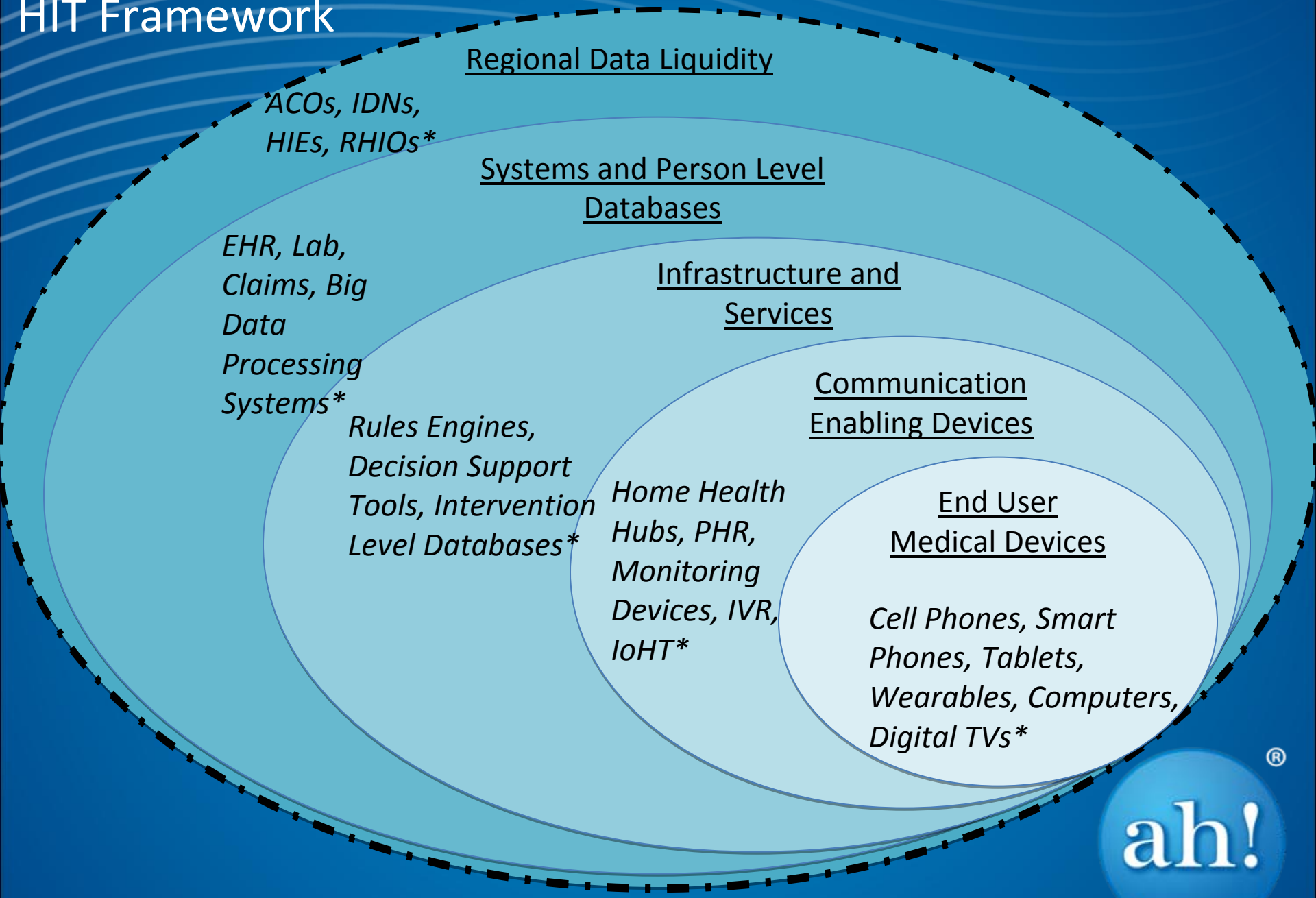
PHA Definition of Population Health Management

A population health management program strives to address health needs at all points along the continuum of health and well-being through participation of, engagement with and targeted interventions for the population.

The goal of a population health management program is to maintain or improve the physical and psychosocial well-being of individuals through evidence based, cost-effective and tailored health solutions.

Source: Population Health Alliance, *Outcomes Guidelines Report, Vol. 6*, 2015.

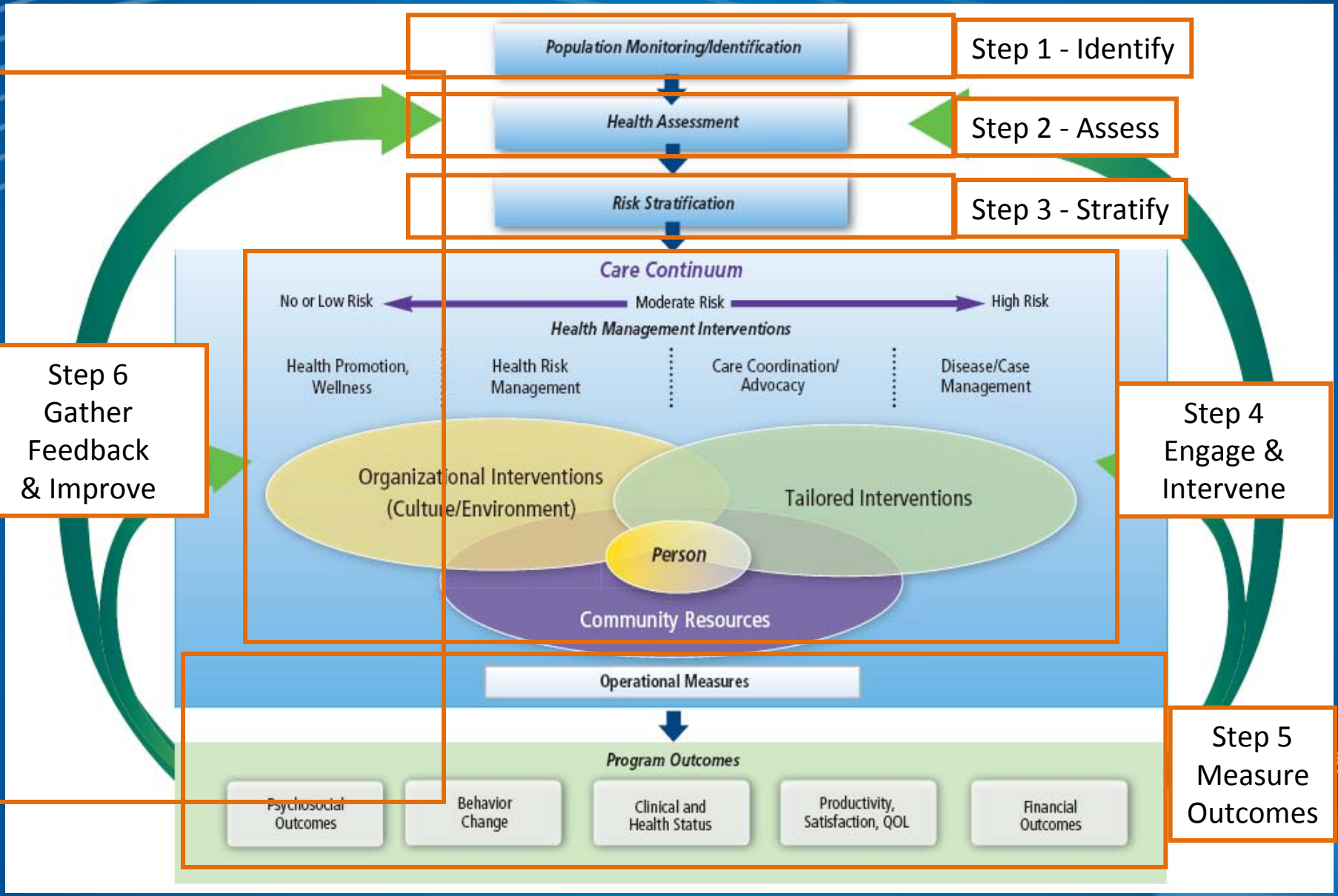
HIT Framework



*Examples only, not meant to be all inclusive

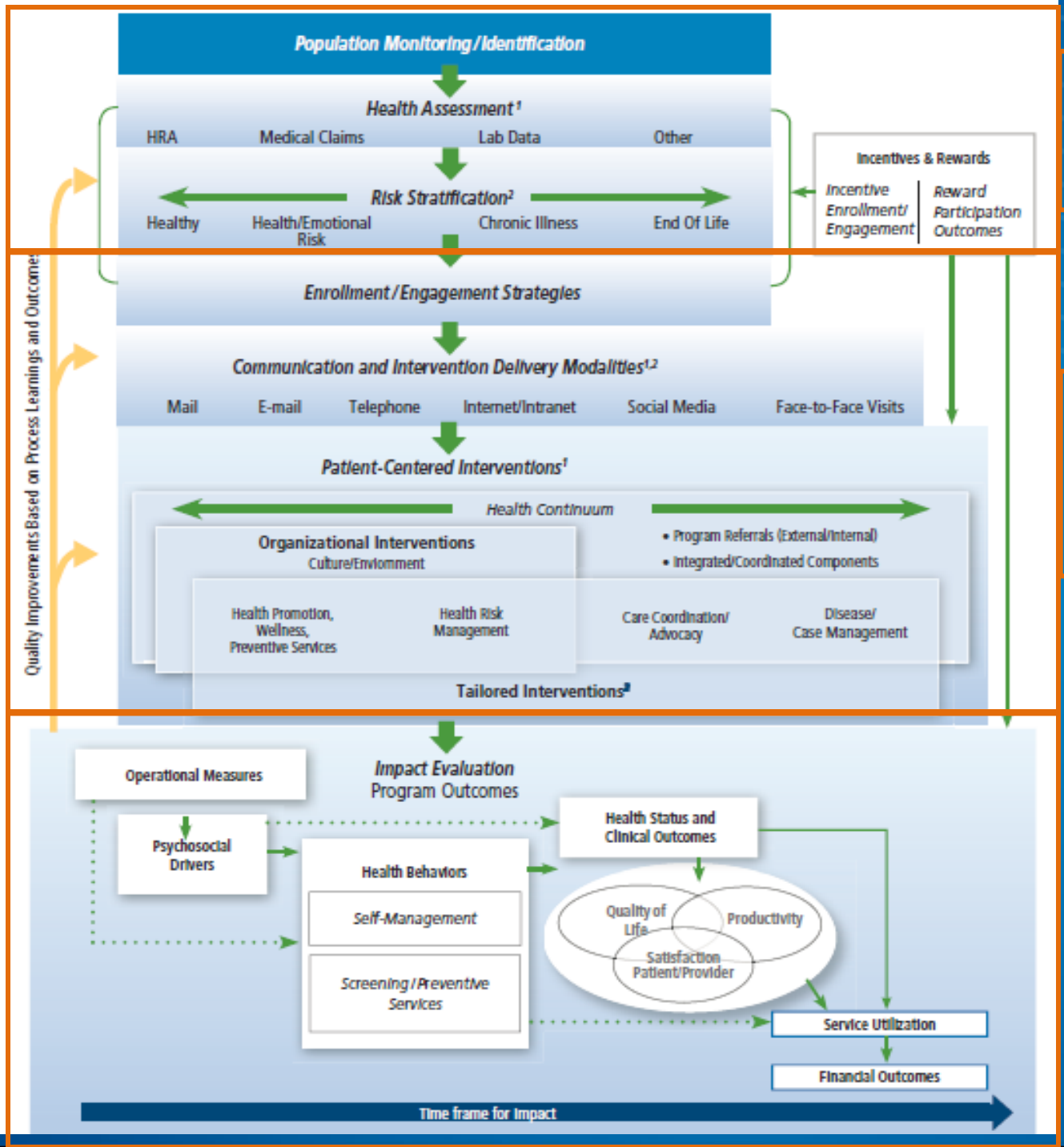
Source: Population Health Alliance, *Outcomes Guidelines Report, Vol. 6*, 2015.

Population Health Management Framework



Source: Population Health Alliance, *Outcomes Guidelines Report, Vol. 6*, 2015.

Expanded Population Health Process Model



Steps 1, 2, 3 - Identify, Assess, Stratify

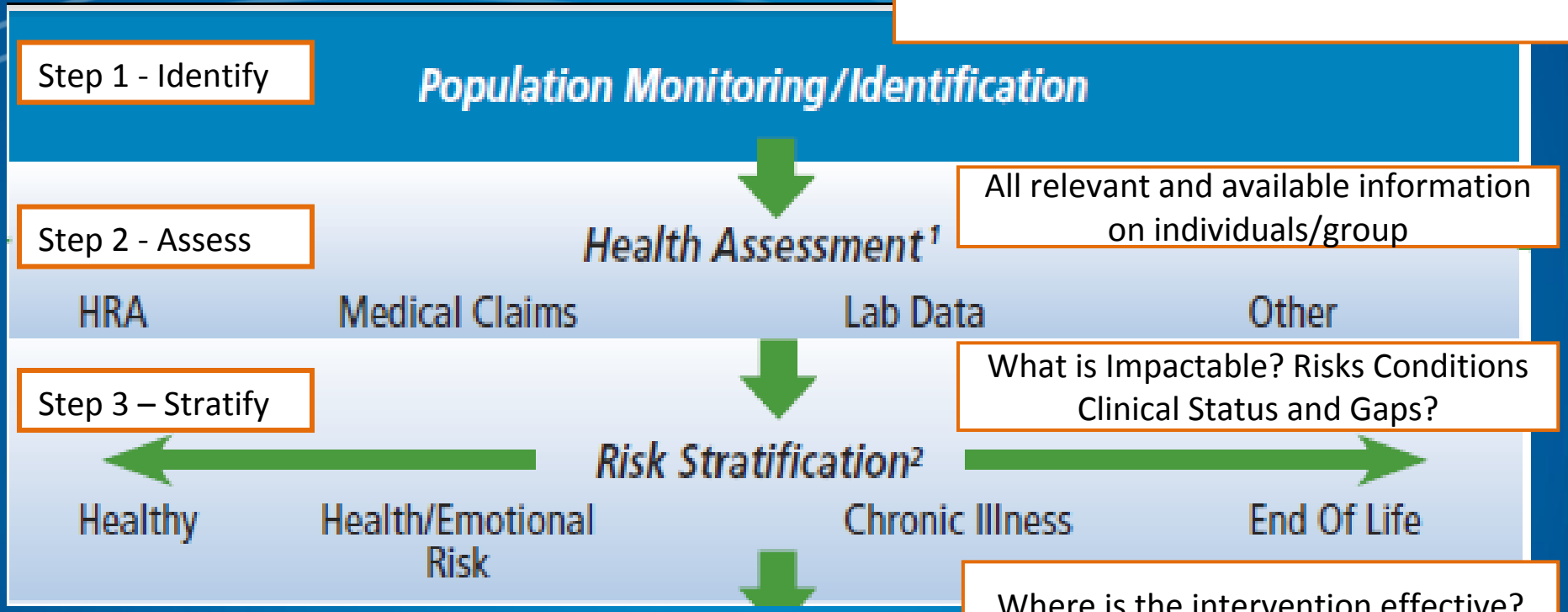
Steps 4 – Enroll, Engage, Intervene

Steps 5, 6 – Outcomes and Quality Improvement

Source: Population Health Alliance, *Outcomes Guidelines Report, Vol. 6*, 2015.

Drill down – Steps 1, 2, 3

Includes Demographics, Registry, EHR, Medical and Rx claims, Patient/Consumer Segments

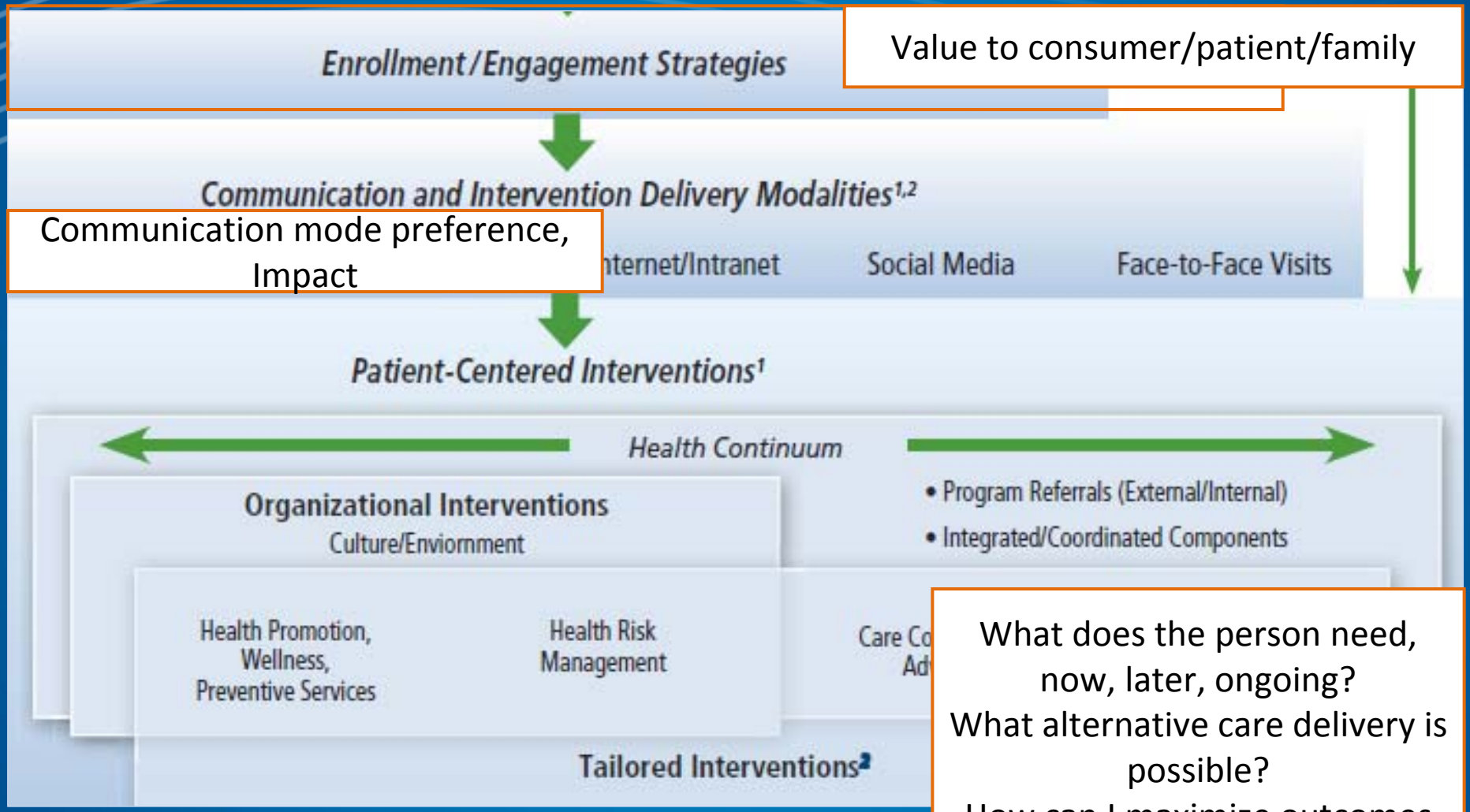


Source: Population Health Alliance, *Outcomes Guidelines Report, Vol. 6*, 2015.

Set Outcomes Goals

- Now that you have the baseline data what outcomes do you want to see?
  - Clinical improvements
  - Reductions in Gaps in Care
  - Improvement in preventive screening rates
  - Cost reductions
  - Service utilization changes
  - Adherence to meds, to office visits, other services
  - Quality of Life improvements
  - Risk reduction
  - Satisfaction improvements

Drill Down – Step 4 – Enroll/Engage/Intervene

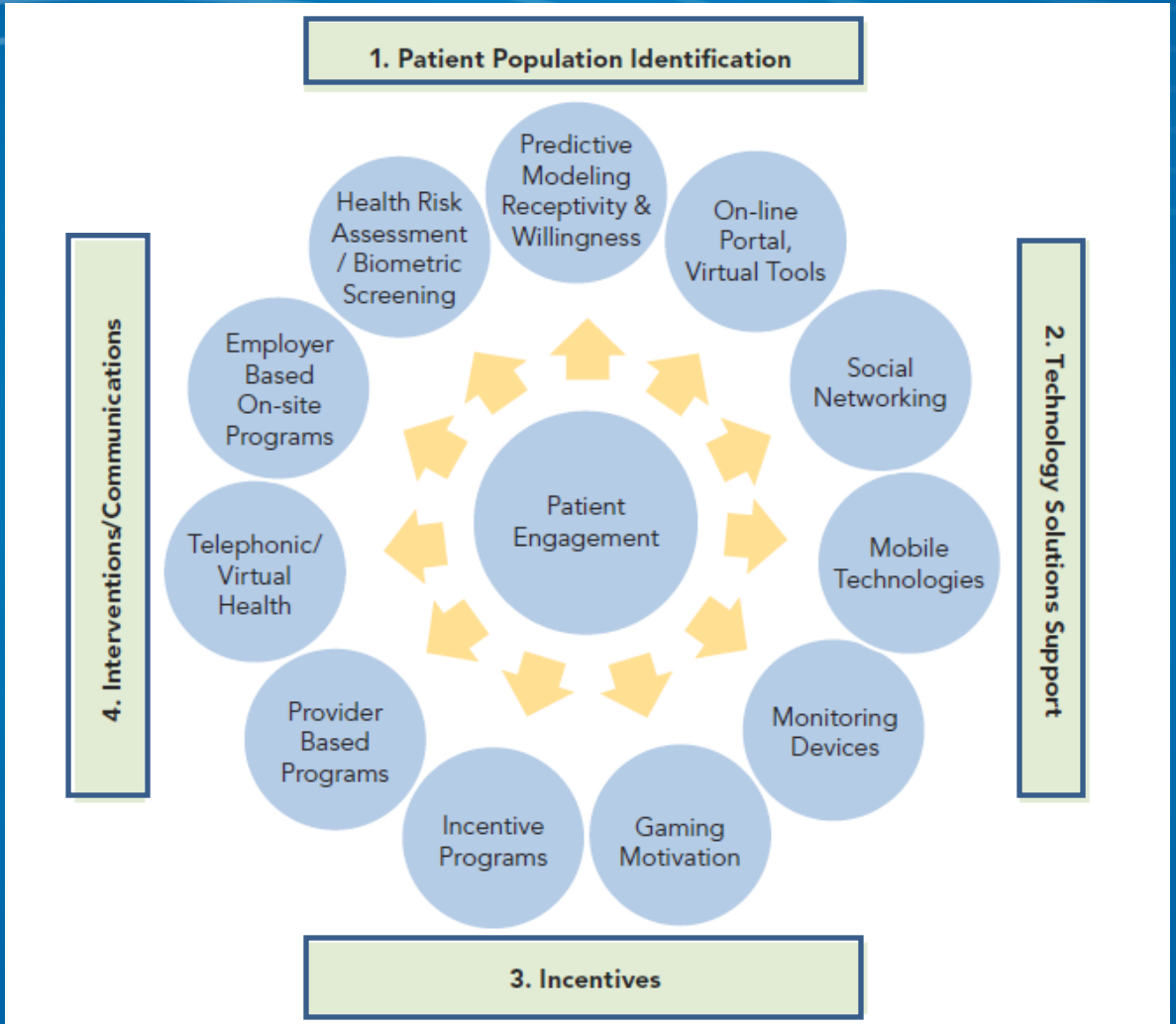


Source: Population Health Alliance, *Outcomes Guidelines Report, Vol. 6*, 2015.

Engaging a population – not a slam dunk

"Give it to me straight, Doc. How long do I have to ignore your advice?"

Engagement Strategies Wheel



Source: Deloitte Consulting LLP. Consumer Engagement Across the Health Care Spectrum. Presentation at CCA Forum 11 on September 7-9, 2011, in San Francisco, CA.

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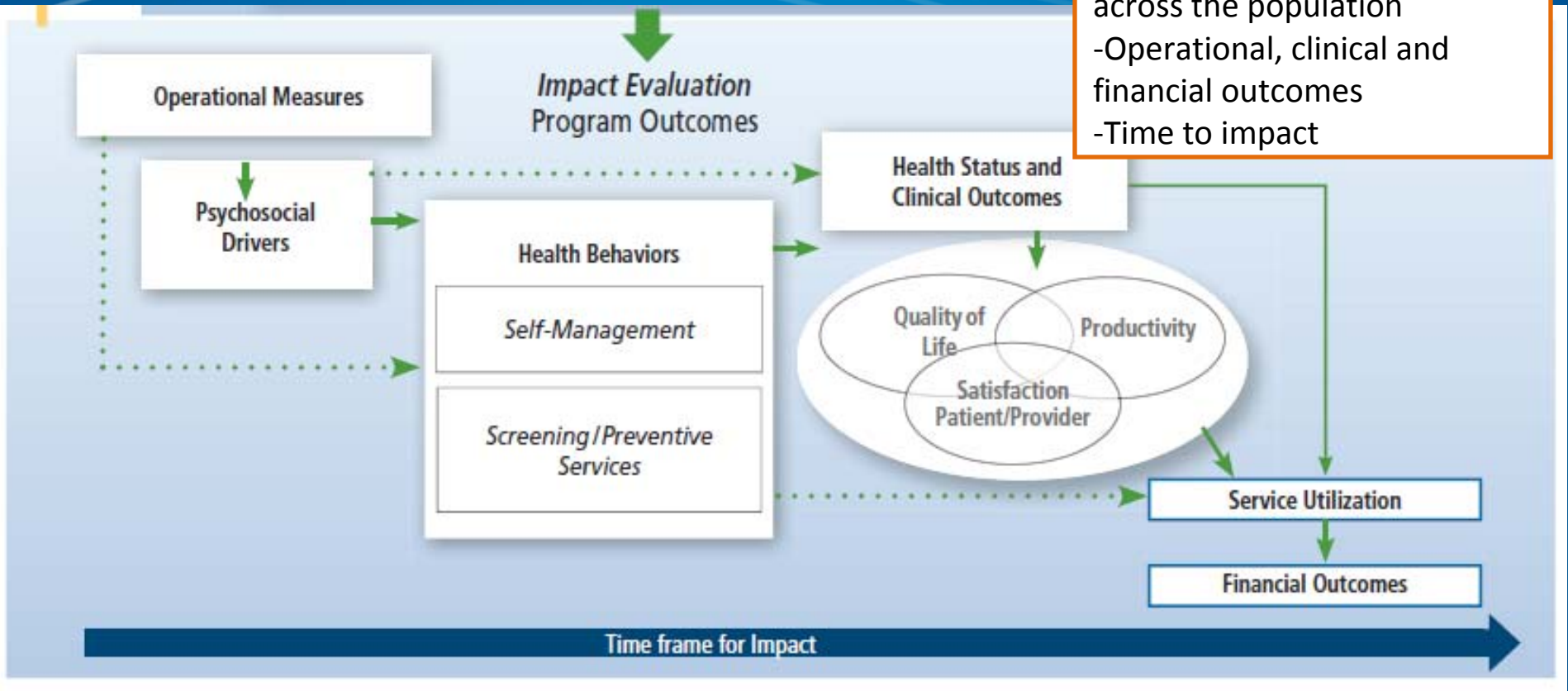
Intervene

- Interventions
  - Education, care coordination, reminders, case management

Drill down – Steps 5, 6 – Outcomes and Program Improvement

Program Impact Evaluation
-Leading and Lagging indicators of health change across the population
-Operational, clinical and financial outcomes
-Time to impact



Source: Population Health Alliance, *Outcomes Guidelines Report, Vol. 6*, 2015.

Outcome Measures – start with the end in mind

Figure 8. Leading and Lagging Indicators

LEADING INDICATORS: Forecasts outcomes we care about

- Identification, stratification, and methods of offering engagement
- Enrollment (initial engagement)
- Sustained and Activated engagement … life-long
- Behavior change … maintenance
- Processes of care (taking a blood pressure, monitoring HbA1c, prescribing a drug)
- Adherence to treatment…. medications
- Achieving clinical targets (e.g., blood pressure, HbA1c, LDL cholesterol, BMI)

LAGGING INDICATORS: Outcomes we care about

- Morbidity (chronic conditions, exacerbations, disease progression)
- Mortality
- Functional status
- Quality of life and well-being
- Productivity (absenteeism, disability, and presenteeism) and performance
- Healthcare claims cost

Source: *A Population Health Guide for Primary Care Models*, Population Health Alliance, 2012

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Program Measurement & Improvement Tips

- Start with a limited group of outcomes indicators
- Make sure you can collect the data
- Identify leading (early) and lagging (later) indicators (to see if you're going in the right direction)
- Let the data lead you (be scrupulous in how you analyze, use and present the data)
- If it's not working, make changes and re-measure
- Iterate, iterate, iterate to success

PHM Objectives for Provider Organizations in each of 6 Steps

Population Health Domain	Organization	Clinician	Patient
Patient Population Identification	Use eligibility/administrative data to push updated "population list" to clinicians	Become aware of all patients in managed population	Link self to medical home and organization
Health Assessment	Assess customer base demographics, values and special needs	Use validated tools to assess patient health risks, preferences, activation and values within defined patient panel	• Increase awareness of health risks and conditions • Increase understanding of health risks and conditions
Risk Stratification	• Identify cost drivers, at-risk individuals in patient population • Prioritize at-risk patients for clinicians • Identify and offer tailored interventions for segments	• Prioritize at-risk patients and intervene to decrease both acute and long-term risks • Offer appropriate patient support based on risk and segment	• Understand condition severity • Understand how behaviors affect risks and conditions
Engagement	• Support engagement of patient population • Help patients access care and interventions appropriately	Offer patient-specific care plans and ancillary interventions based on identified patient needs, preferences, activation, values, capabilities	• Participate in defining customized care plan • Receive information and support tools to become activated in care
Patient-Centered Interventions	Direct resources toward the areas of greatest population risk and opportunities for health improvement	Assure every at-risk patient receives timely care and has access to resources to help manage acute and chronic health needs	Learn how to implement self-care plan to improve/stabilize health
Impact Evaluation	• Use analytics to understand and improve population health interventions impact • Push "scorecard" to individual clinicians	• Access "scorecard" to understand and improve performance relative to others • Identify areas for care improvement	Improve health risks and control of conditions

Source: *A Population Health Guide for Primary Care Models*, Population Health Alliance, 2012

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PHM Best Practice Components and Levels

Table 3. Population Health Components - Best Practice Implementation Levels for Primary Care Clinicians

PHM Best Practice Level

	1	2	3	4	5	6
	Patient Population Identification	**Health Assessment**	**Risk Stratification**	**Engagement**	**Patient-centered Interventions**	**Impact Evaluation**
Level V	Clinician receives real-time, patient & population specific data at point of care	Clinician auto-notified of new or conflicting info requiring resolution	Valid tools auto- stratify patients & population across all clinicians; gaps flagged for action	"Medical home"; clinician monitors, optimizes care plan & care team across all settings	Clinician/Patient collaborative care plan; 1°, 2°, 3° prevention focus; coordinated team	Real-time feedback; outcomes meet & exceed patient , peer, population goals
Level IV	Patient information available from all clinicians - ID, risks, condition control	Patient health, values, preferences assessed; clinician receives info for consideration	Stratification lists available based on claims, HA, labs, screening info	Clinician engages with patient in "medical home," coordinates across connected settings	Clinician aware of & responds to patient needs/preferences focus on 1°, 2°, 3° prevention	Clinician receives patient outcome info; performance goals set in peer organization
Level III	Clinician registry – key diagnoses, tests, Hx, and condition control	Clinician evaluates health risks based on year-over-year comparing assessments	New health risks identified through health assessments and via registry lists	Clinician engages with patient focusing on both past and newly identified risks	Clinician focuses on 1°, 2°, 3° prevention; strategies for risks identified	Clinician unaware of patient outcome unless directly involved in care
Level II	Clinician has patient list with diagnoses	Clinician asks patients for baseline health assessment; assesses patient at the visit	Risk based on "frequent flier" status & clinician lists with diagnoses	Clinician engages with patient episodically at patient presentation	Intervention based on current patient need and known health risk(s)	Clinician unaware of patient outcome unless directly involved in care
Level I	Clinician identifies patient through direct interaction and hard-copy records	Clinician assesses patient at the visit	Clinician aware of high-risk patients based on "frequent flier" status	Clinician engages with patient episodically at patient presentation	Intervention based on current patient need and known health risk(s)	Clinician unaware of patient outcome unless directly involved in care

Source: *A Population Health Guide for Primary Care Models*, Population Health Alliance, 2012

Building a Best-practice Approach to Improve Medication Adherence in Organizations*

Level I – Pt. Assessment	Level II – Identify at-risk Individuals	Level III - Basic Intervention	Level IV – Advanced Intervention - Goals-based Management	Level V – Fully functional System for Med Adherence
Validated tools available to assess individual pt. med non-adherence	HCPs** review Pt. adherence responses at point of care: at-risk individuals are identified	HCPs assess at critical points of care to identify and overcome barriers	HCPs: a) receive/access data on their pts. adherence; b) Training occurs; c) Goals are set	HCPs receives incentives or increased reimbursement based on adherence performance
	Cross-organizational alignment to assess pt. risk of non-adherence	Organization identifies adherence interventions for at-risk individuals and populations	Organization offers suite of targeted assessments and interventions to lessen risk	Organization challenges low HCP performers to improve outcomes
		Organization aggregates data to identify medication adherence trends	Organization builds formal database to track and report trends	Organization integrates data base into daily provider function
			Organization collectively sets targets & goals to improve organizational performance	Organization aligns value-chain to support ongoing adherence
				Organization links med adherence to overall system success

Lower — Systematic Approach — *Higher*

*"Organization" is any organization in health care, includes Health Care Delivery Systems, Analytics, Population Health Vendors, Pharmacies, Health Plans
**HCP is any provider of service and includes physicians, pharmacists, case or disease managers, ancillary providers
Source: *A Population Health Guide for Primary Care Models,* Population Health Alliance, 2012

Building a Diabetes Program

- Who is our Population? All Patients with Diabetes
- Identify
  - EHR, Claims ICD9/10, referral

Diabetes Identification from Claims Example

- ***Denominator specifications for Diabetes***
- ***Type and Number of Codes in ID Frame***
- • 1 OR MORE ACUTE INPATIENT DISCHARGE WITH
- – ICD10 codes in any position: E11.9, E08-E13, E08.42, E09.42, E10.42, E11.42, E13.42, E08.36, E09.36, E10.35, E11.36, E13.36
- • OR 2 OR MORE OFFICE/OUTPATIENT VISITS OR ENCOUNTERS OR EMERGENCY DEPARTMENT VISITS AT LEAST 14 DAYS APART WITH
- – ICD9 codes in any position: Same as above
- • OR 1 OR MORE MEDICATION DISPENSING EVENTS FOR THE FOLLOWING
- – Alpha-glucosidase inhibitors
- – Anti-diabetic combinations
- – Insulin
- – Meglitinides
- – Miscellaneous antidiabetic agents
- – Sufonylureas
- – Thiazolidinediones
- – (Note: Glucophage/metformin is not included because it is used to treat conditions other than diabetes.)
- ***Condition-Specific Exclusions***
- • Gestational diabetes: Exclude anyone with 1 or more claims with a code of O24.429.

Source: *Outcomes Guidelines Version 6* Population Health Alliance, 2015

Diabetes Assessment – More than gaps in care

- Where they are from a risk level and impact level
- Clinical
  - HgbA1c
  - Weight
  - BP
- Quality measures/gaps in care
  - Flu shot, eye exam
- Financial
  - Total annual costs prior year
  - Costs by various groupings
    - Pharmacy
    - Other

Diabetes Assessment (cont.)

- Utilization
  - Hospitalizations
  - Emergency Room visits
- Behavioral,
  - PHQ 9
- QOL
  - SF 12
- Activation/Readiness to Change
  - PAM
  - Prochaska Transtheoretical Behavior Change Model

Diabetes Stratification

- Stratify
  - Simple to complex models.
  - How many buckets?
  - Think what are the interventions? What do you want to target?

Diabetes Engagement

- Engagement
  - By Whom/What?
    - RN, Coach, other staff or service, face to face, phone, text, email, mail, social media

Diabetes Interventions

- Cost versus impact
- Interventions
  - By Whom/What? RN, coach, peer, caregiver, automated phone text, email, telemedicine, chat
  - Intervention method
    - Face to Face, Call, digital, IVR, chat, group, email, text, in-home monitoring,wearable's

Diabetes Intervention (cont.)

- Intervention Service
  - **Education** - face to face, telephonic, group, digital, paper
  - **Reminders** - appointments, medications, screenings, daily measurements
  - **Care coordination -** including other non-medical issues affecting ability to adhere

Diabetes Program Outcome Measures

LEADING AND LAGGING INDICATORS OF EHM'S FINANCIAL IMPACT

LEADING INDICATORS	EXAMPLES	TIME COURSE
Identification, Stratification and Targeting (outreach)	Count/% with risk factors…conditions…etc.	Few months
Program enrollment and use of tools	Initial enrollment by type of program or tool	Few months
Continuing engagement or program completion	4 or more sessions; or (better) program completion	6–12 months
Behavior change (lifestyle risks)	Physical activity, tobacco, nutrition, stress	6–12 months
Behavior maintenance	6- or 12-month rates of low lifestyle risk	12+ months
Processes of care	% of diabetics with annual LDL testing	Six months
Medication adherence	% of people with CAD on statins with MPR 80%+	6–12 months
Achieving clinical targets	% of diabetics with LDL less than 100	Six months
Activation (survey or composite measures)	Patient Activation Measure or composite performance	Six months
Satisfaction with EHM	Positive experience and high marks on usefulness	6–12 months
Well-being	Gallup-Healthways Well-Being Index	6–12 months
LAGGING INDICATORS	**EXAMPLES**	**TIME COURSE**
Functional status	SF-12/36, Activities of Daily Living	Six months
Quality of life and well-being	SF-12/36, Gallup-Healthways Well-Being Index	Six months
Absenteeism and presenteeism	Health-related absenteeism and presenteeism scales	Six months
Morbidity (ER, hospital, procedures)	Rates for ER, hospital, and preference-sensitive procedures	1–3 years
Healthcare claims cost	Paid or allowed amounts as trends	2–5 years

KEY

CAD: Coronary artery disease; MPR: medication posses
actually are as evidenced by count of days' supply dispe
status and quality of; ER: Emergency room

Source – Program measurement and Evaluation Guide: Core Metrics for Employee Health Management – HERO/PHA Joint Publication

Session Takeaways

- Caring for populations means changing what we do and how we do it
- Data is required but it can be done very simply
- Use the PHA Framework to guide best practice population health management program development
- PHA offers publications, tools and expert support to help you develop and improve your PHM programs

FRED GOLDSTEIN

FGOLDSTEIN@ACCOUNTABLEHEALTHLLC.COM
TWITTER @FSGOLDSTEIN