Toward improved data sharing, linkage and dissemination among King County government agencies and their partners

Performance Measurement Work Group

Public Health
Seattle & King County

Outline

1. Data fragmentation and its consequences
2. King County ACH Performance Measurement Work Group aims to address data fragmentation
3. Looking ahead at the evolving data needs and roles of ACHs
4. Spotlight on data needs of housing-health partnerships in King County

Problem statement:
Why we need better data sharing, linkage & dissemination in King County

In King County, there is a broad understanding that health begins where we live, learn, work and play.

Because of this, we know we must work across sectors, agencies and communities in order to reach better and more equitable health at lower costs. In King County, many "transformation" initiatives are working across sectors throughout the life course to address this need.

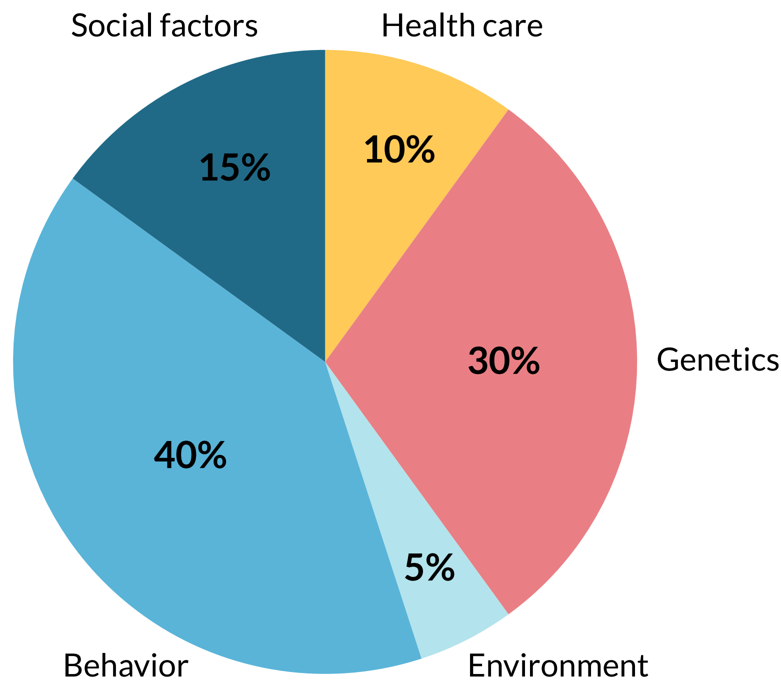
There is great promise in this growing collaborative approach to promote healthy individuals and communities. But to know if we are making progress, these initiatives need to share, link and disseminate cross sector data, but substantial barriers stand in the way.

Historically, health and non-health data are maintained separately, are not typically linked together to understand a fuller picture of health & well-being, and as a result, many stakeholder groups do not have access to the information they need to make evidence-based decisions.

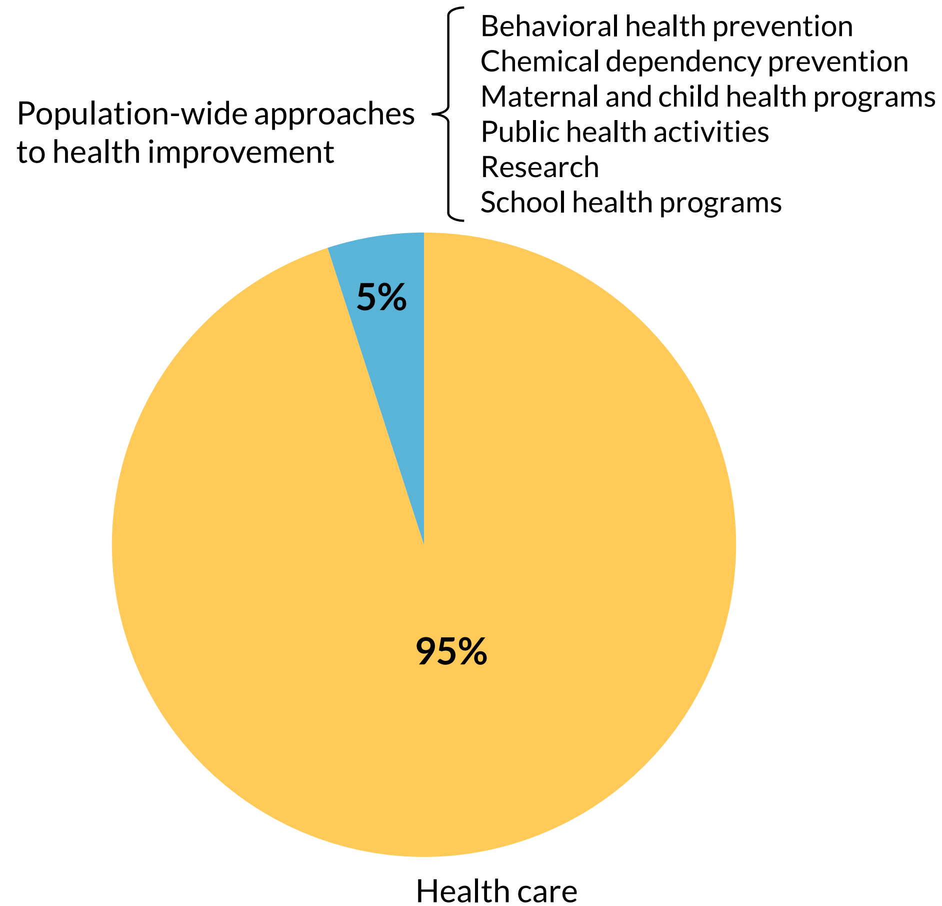
Health extends far beyond health care.

We only spend 5% of our health dollars to address what causes 60% of our avoidable deaths

Causes of avoidable death in the United States[1]



United States health expenditures in 2013[2]

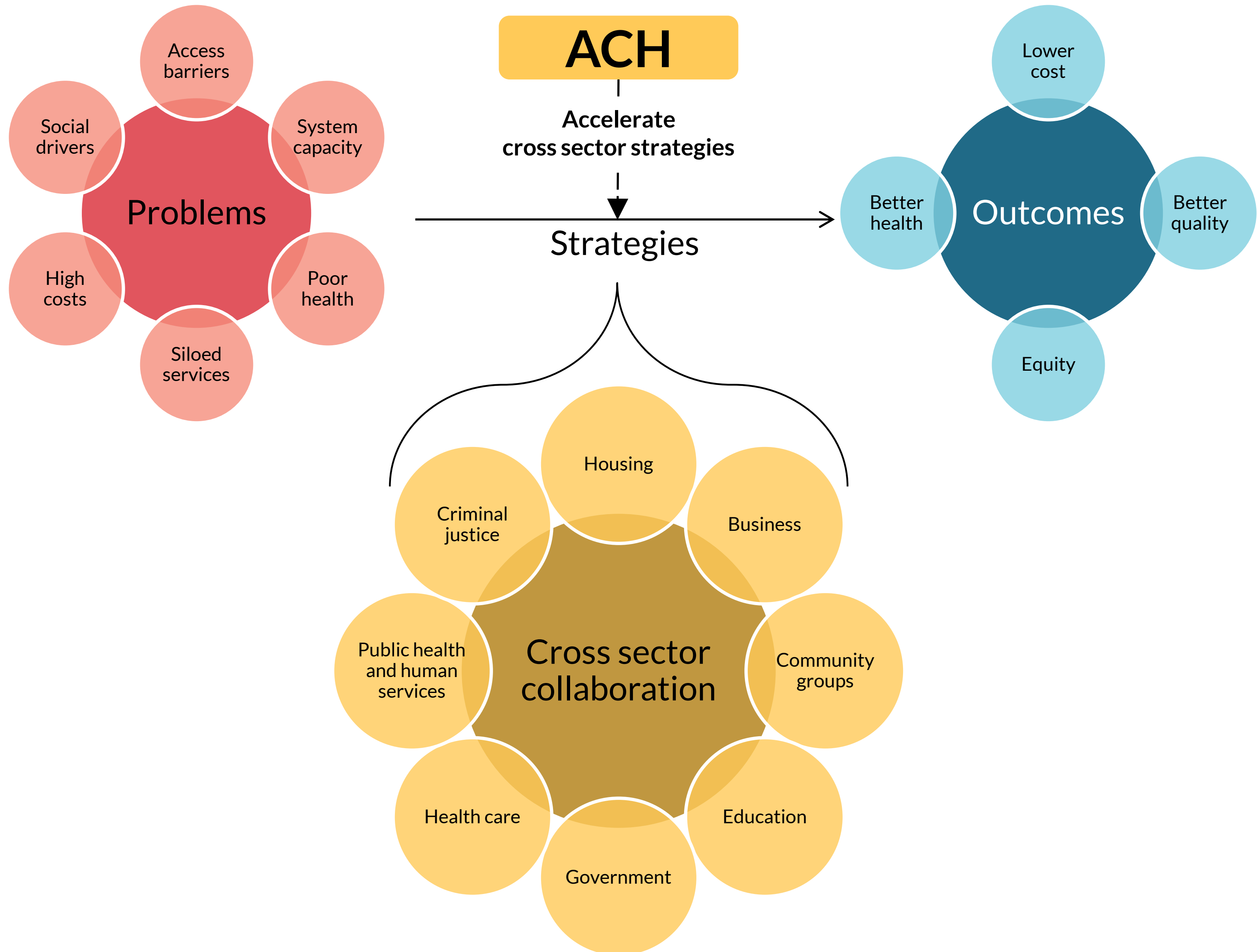


[1] McGinnis et al., The case for more active policy attention to health promotion. Health Affairs 2002; 21(2):78-93.
[2] Centers for Medicare & Medicaid Services, Office of the Actuary. National health expenditures, by source of funds and type of expenditure. 2013.

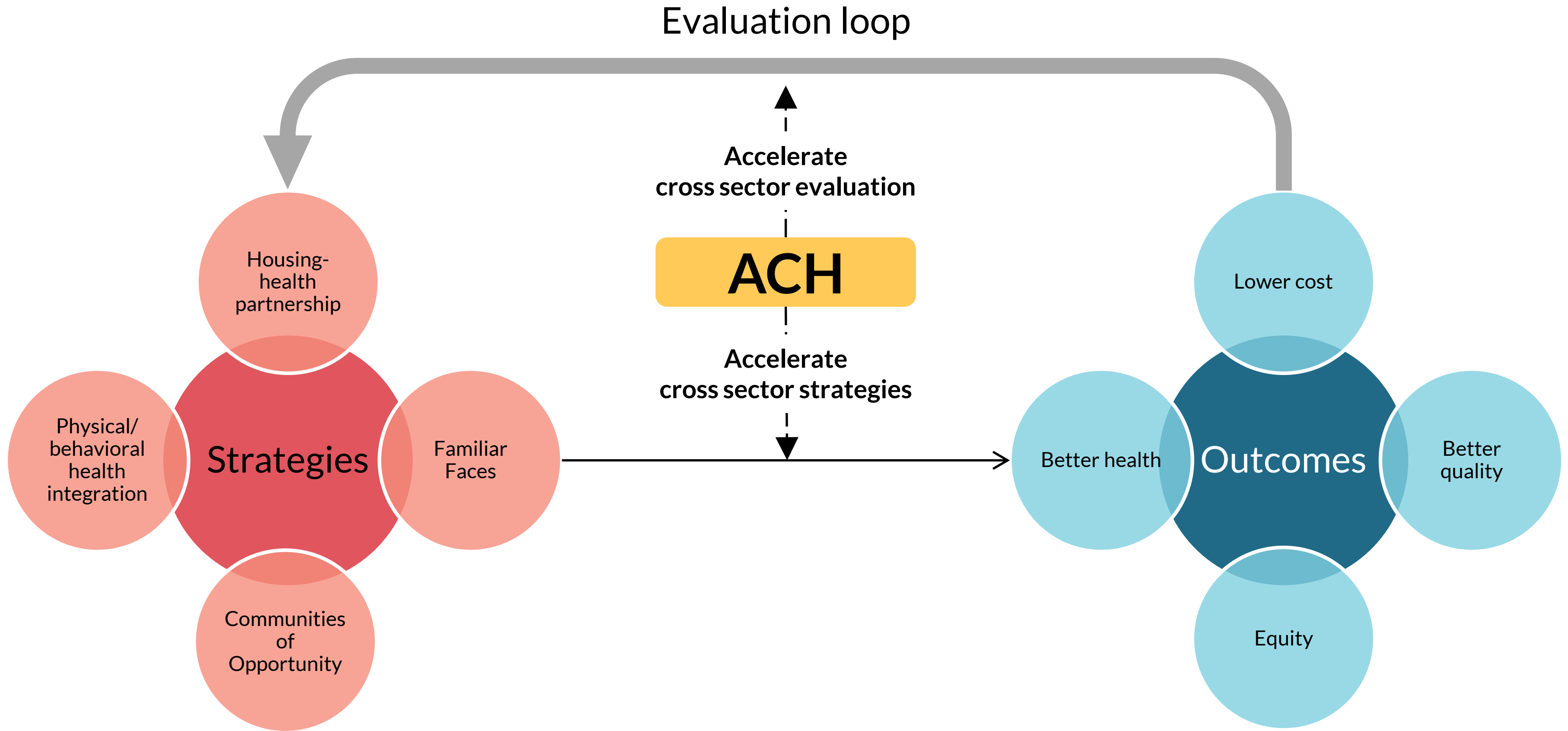
In WA state, there is a broad understanding that health begins where we live, learn, work and play.

This is embodied in the Accountable Community of Health.

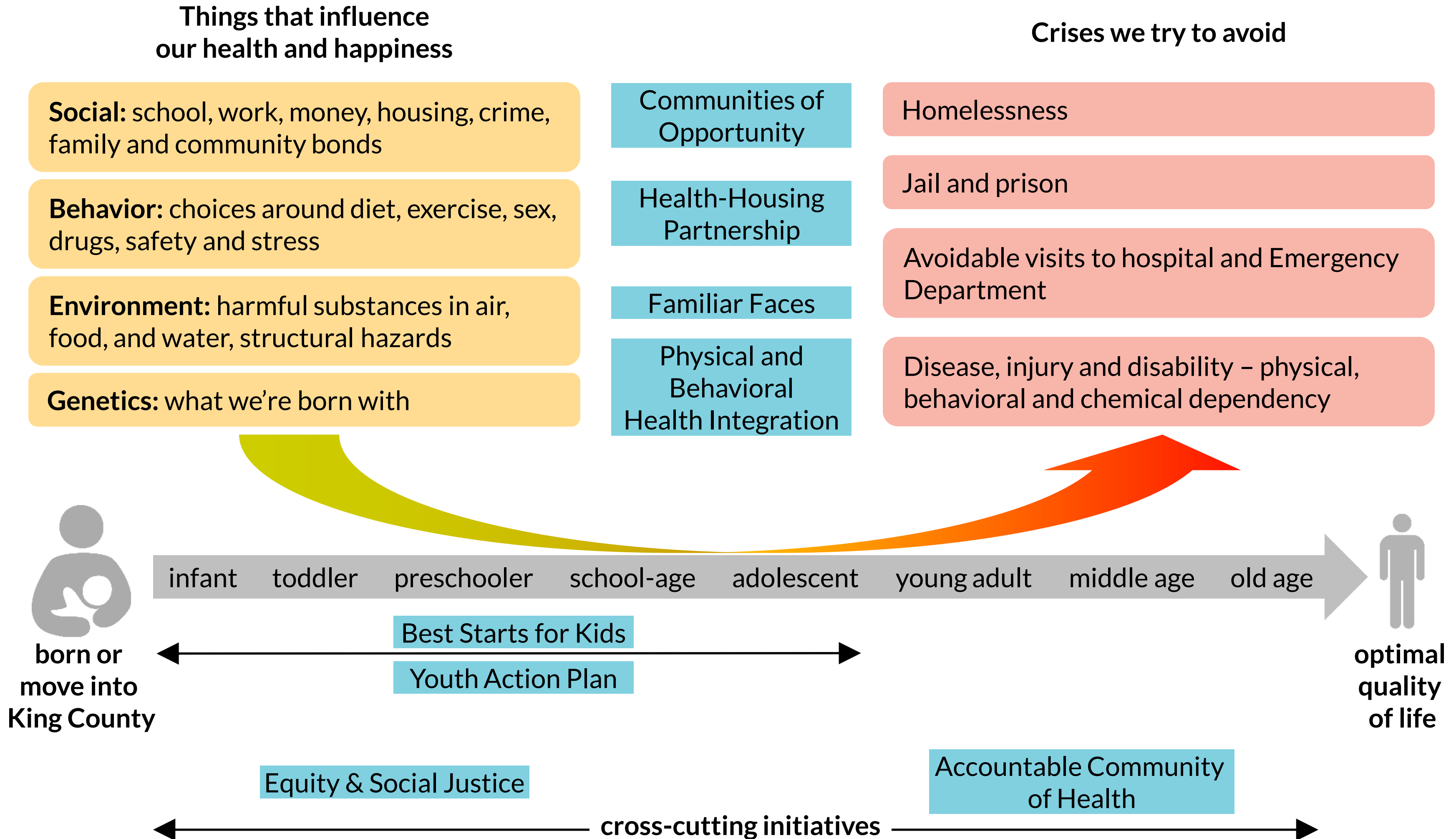
Complex problems require complex strategies



Complex strategies require complex evaluation

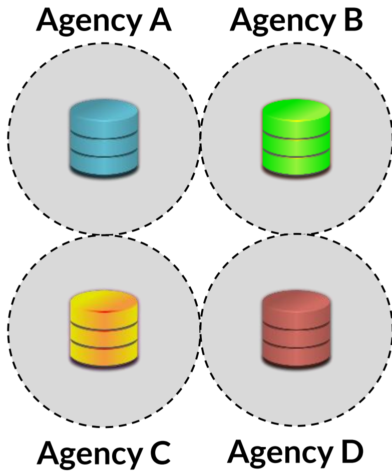


In King County, Health & Human Services Transformation initiatives are working across sectors throughout the life course



Impact of data fragmentation on health and human services transformation

data fragmentation



data systems are program specific and largely do not talk with each other

impact on health & human services providers

Providers struggle to:
- Provide whole person care
- Avoid care gaps and overlaps
- Alert other providers to significant events
- See impact of social determinants of health
- Relate full context of health to an individual

impact on analysts

Analysts struggle to:
- Provide decision makers with actionable and timely information
- Accurately identify disparities
- Measure meaningful progress
- Avoid duplication of work across organizations

The King County ACH
Performance Measurement Work Group

King County ACH established in 2015

Partner initially with four initiatives underway

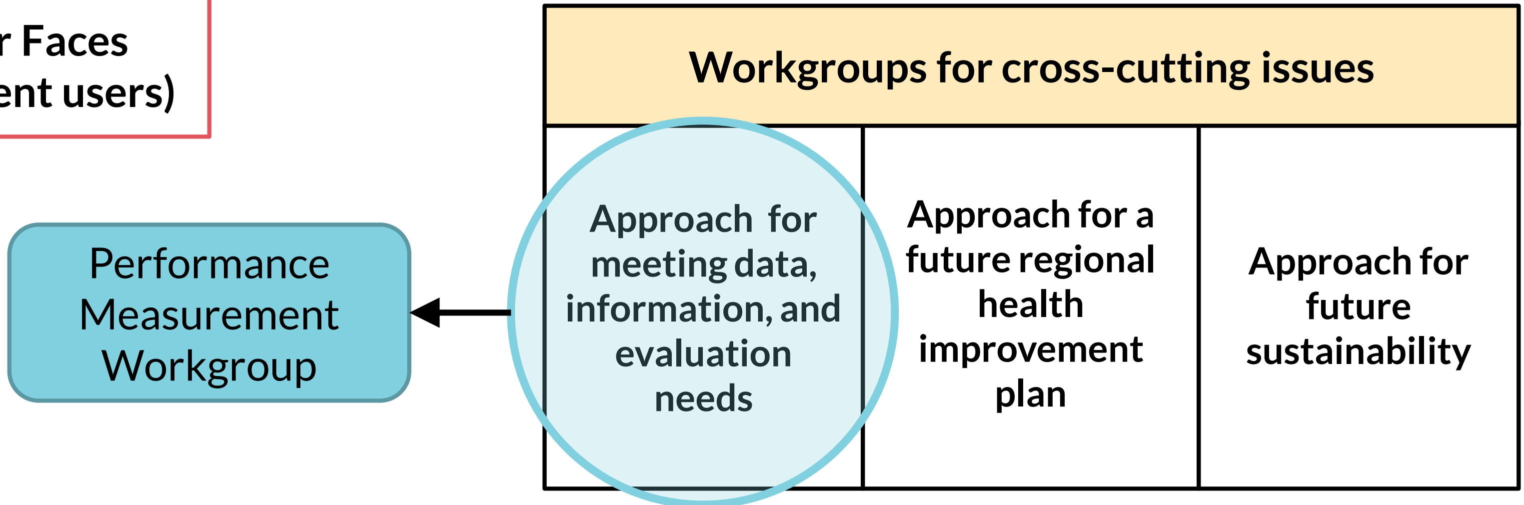
Communities of Opportunity

Housing-health partnership

Physical/Behavioral Health Integration

Familiar Faces (jail frequent users)

Learn / support / test



Data to action

We believe that providing the right people the right information at the right time can promote evidence-based decision making for health policy and programs. By making available a current, fuller picture of health and well-being at the individual and community level, we believe that decision makers will be better able to both gauge and make progress towards our collective goals.

short-term goals

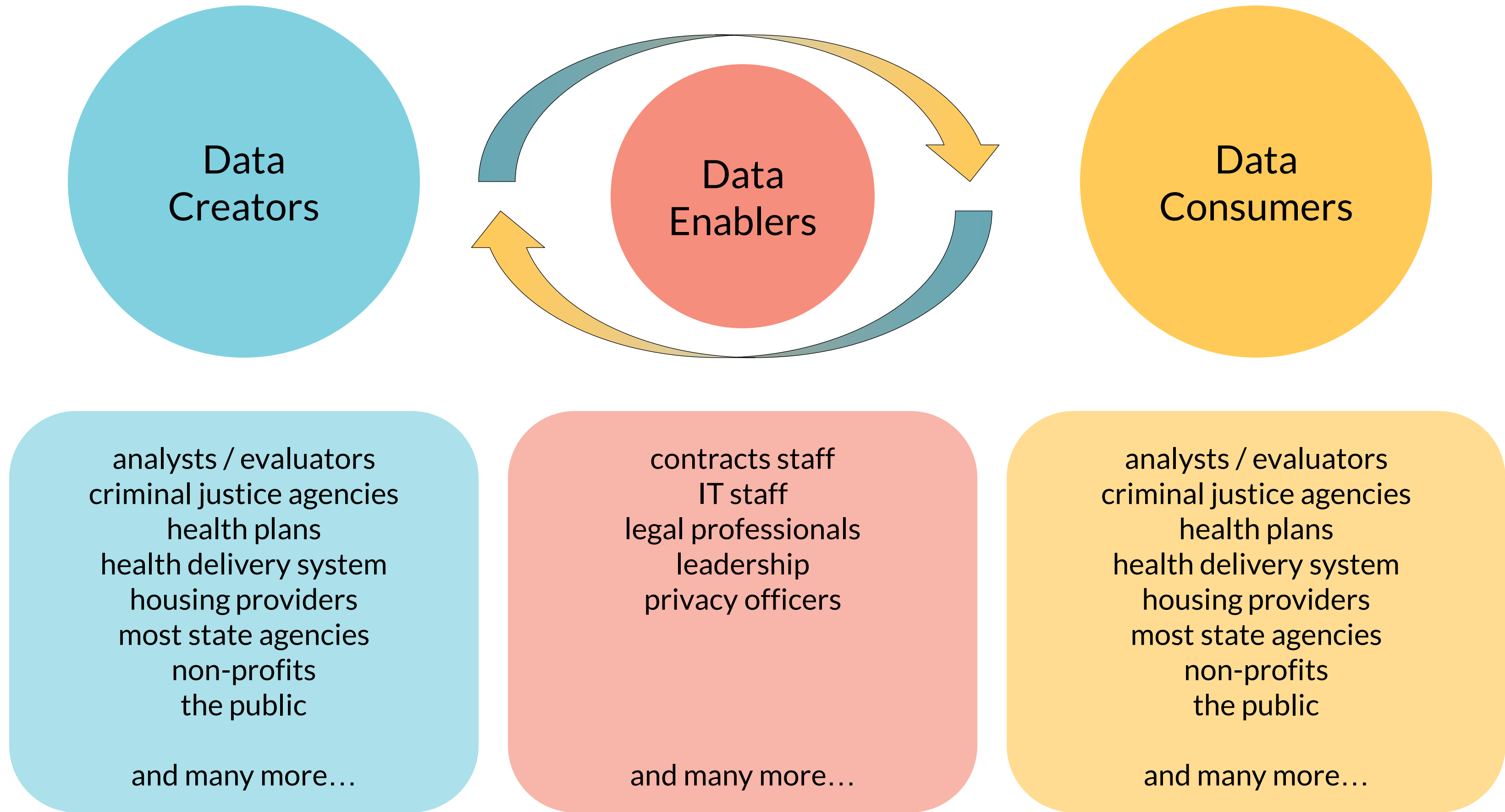
- Improved data sharing
- Improved data linkage
- Improved data dissemination

Data to action

long-term goals

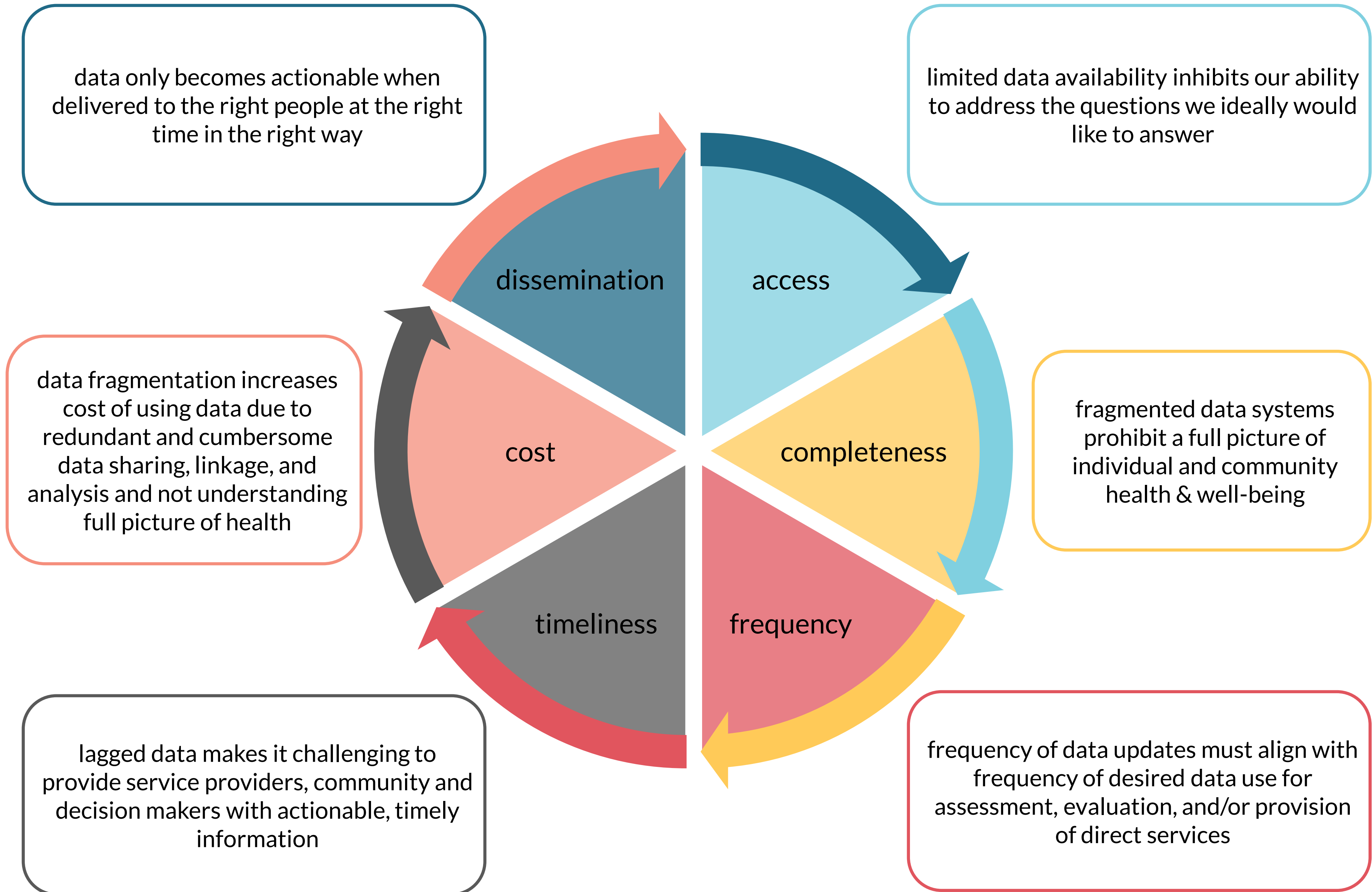
- Improved social determinants of health - where we live, learn work and play
- Triple Aim - better health & care at lower costs
- Equity & social justice

Data sharing & linkage require a multi-disciplinary approach



Adapted from *Toward a Structure for Classifying a Data Ecosystem*, Seeder A., Smart Chicago, 2014, http://www.smartchicagocollaborative.org/toward-a-structure-for-classifying-a-data-ecosystem/

Six dimensions of actionable data



How did the PMW address data fragmentation during its 1st year?

Relationship building

- Began to build common language and interpretation of data privacy & data sharing in King County
- Brought HCA and King County Chief Information Officers together to identify common priorities for data sharing & integration
- Built relationships between state agency and King County privacy officers

Regional voice

- Guided selection of ACH-level summary measures produced by Providence CORE
- Informed use of CDR data for population & behavioral health (use case scenarios, meetings, survey)
- Involved in development of performance measures for behavioral health contracts
- Accelerated consideration of behavioral health data by Link4Health Privacy and Security Workgroup
- Facilitated discussion with DSHS regarding use of PRISM data for ACH data needs

Recommendations

- Developed initial set of recommendations for the King County ACH ILC aimed to support data sharing/integration in the ACH environment
- Participated in an RWJF Public Health Services and Systems Research grant aimed at identifying the role of local health and human services departments in building shared data in the WA state ACH context

Preparing for the future

- Participated in discussions around data needs of King County ACH SIM project
- Began to unpack data-related impacts of Medicaid waiver on King County ACH
- How will data needs and data requests be fulfilled under the emerging ACH governance structure

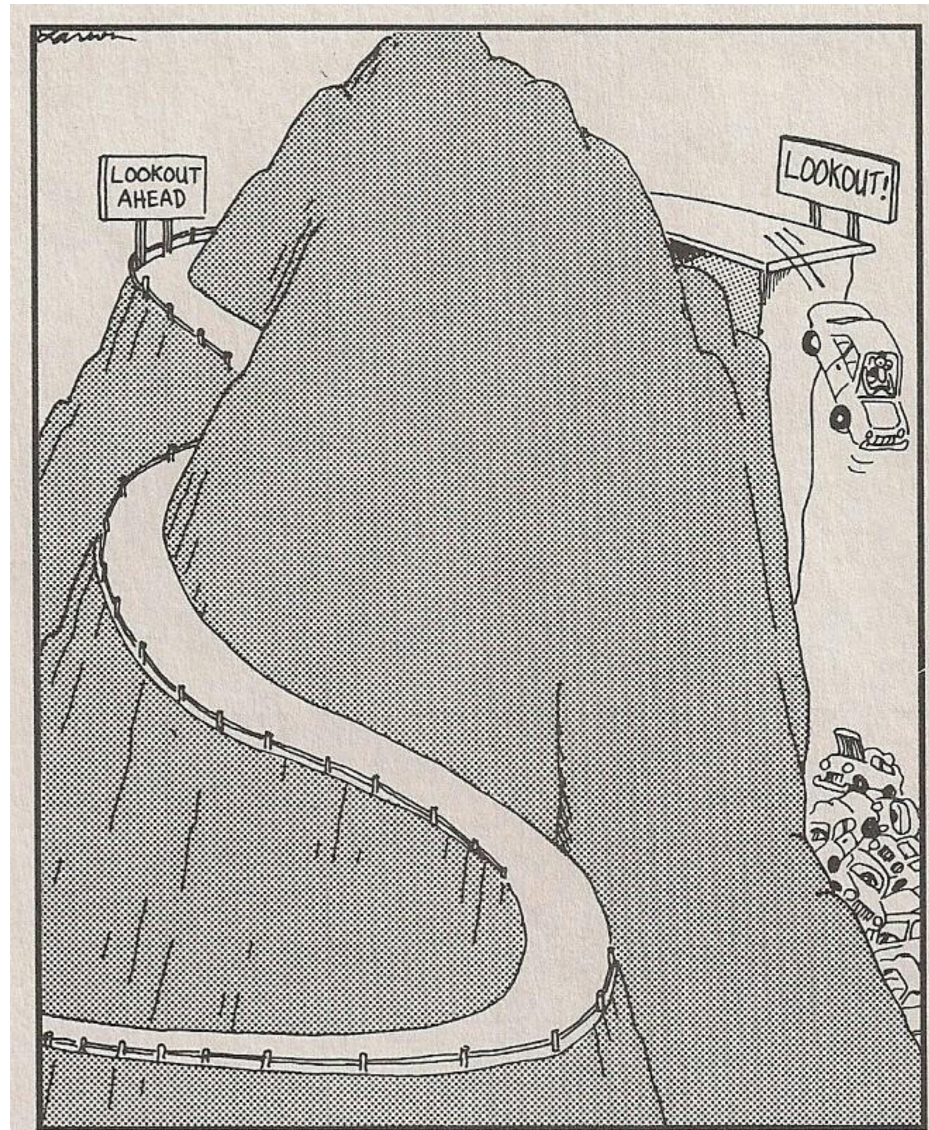
Initiative-specific support

- Strengthened cross agency, cross initiative relationships, and identified common data needs and priorities across ACH-backed initiatives
- Supported development of Data Across Sectors for Housing & Health grant proposal
- Contributed to proposal for KCIT to develop a cross sector data integration solution to improve care coordination for high-need/high-risk individuals in King County

What's ahead for the evolving data needs and roles of ACHs in WA state?

Planning for what is to come…topics to address over the coming year

- What “data backbone” function will be needed for the King County ACH?
- How will the ACH meet its data and evaluation needs in the context of Medicaid waiver projects?
- What should the ACH be doing to support Value-based Payments in the context of VBP measures being included in state’s health care purchasing contracts?
- Who should be included in conversations around data related to the:
  - Regional Health Improvement Plan?
  - Value-based Payments?
  - Medicaid waiver projects?



Overview of Healthier Washington Medicaid Transformation waiver

Background

- Delivery System Reform - each region, through its Accountable Community of Health, will be able to pursue projects that will transform the Medicaid delivery system to serve the whole person and use resources more wisely

Overall goal

- Shift to paying for value over volume (i.e. away from fee-for-service):
  - Target: 80% of Medicaid payments are value-based payments by 2019

Project guidelines

- Projects will be specified by the state
- Projects must support predominantly Medicaid-eligible populations

Key players

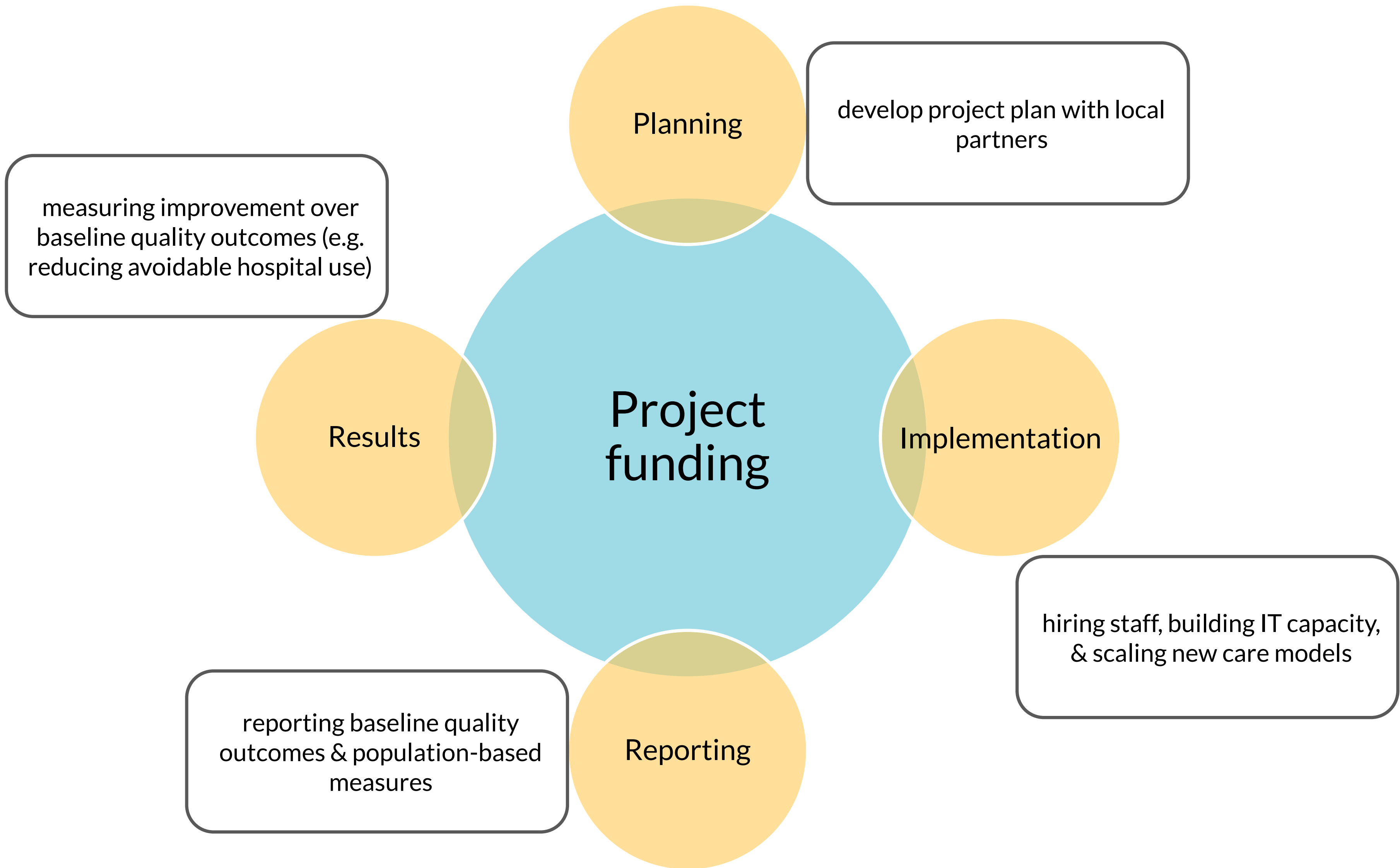
- Focus on transforming health care delivery system by working with providers and plans

Role of metrics

- Participating providers will earn incentive payments based on performance on project metrics:
  - State will develop metrics for each waiver project
  - Metrics expected to be based on common measure set

Source: Healthier Washington, Medicaid Transformation Waiver: Framework for the Project Toolkit, 4/21/2016.

How can waiver project funding potentially be used in WA state?



Source: Healthier Washington, Medicaid Transformation Waiver: Framework for the Project Toolkit, 4/21/2016.

WHAT data will be needed for Medicaid waiver project planning & performance measurement?

Which data sources?	If ACHs work with providers, plans, and other partners to implement Medicaid waiver projects, what data will be needed for planning & performance measurement?
Which populations?	Will Medicaid waiver projects be targeted to ALL Medicaid enrollees within each ACH, or will projects target selected sub-populations by provider, plan, demographics (e.g. place) or clinical characteristics?
Crossing providers/plans	If projects target sub-populations that span multiple providers and/or plans, how will this cross provider/plan data be prepared for planning and performance measurement?
Use of non-provider/ plan data	How will data sources not traditionally used by providers/plans (population-based surveys, vital statistics) be incorporated into project performance measurement?
Performance measurement roles	Will performance measurement be centralized (i.e. state) or localized (i.e. ACHs/partners)?
Role of non-health data in planning	For projects that focus on working with partners outside of the traditional health care delivery system, how will these projects use cross agency, cross sector data for planning?

HOW will data will be used for Medicaid waiver project planning & performance measurement?

Topic	Question
Data infrastructure	What data infrastructure will ACHs or waiver project partners need to receive, process, manage and analyze data?
HIPAA	Do ACHs need to be HIPAA covered entities or be partnered with a HIPAA covered entity to have their data needs met?
Data sharing agreements	What infrastructure or tools would be helpful to ACHs and their waiver project partners in establishing data sharing agreements?
Minimum data capacity	What minimum data capacities should ACHs have either through staffing, contracting, or collaboration with ACH partners?
Budgeting for data	What percent of administrative budget or other lines should be directed towards meeting data needs?
Data technical assistance	What level of data technical assistance provided by whom will be needed by ACHs and their partners? What about regional or centralized support beyond AIM for the waiver?

Pay for performance metrics to be drawn from common measure set

Measures based on claims/hospitalization data typically drawn from identifiable data

- Able to assess custom groups defined by participation in intervention (e.g. waiver project)

CLAIMS/HOSPITALIZATION DATA-BASED MEASURES

access to primary care providers
well-child visits
weight assessment & nutrition/physical activity counseling
primary caries prevention offered by primary care
medical assistance with smoking
health screenings (cancers, chlamydia)
follow/up after hospitalization for mental illness
follow/up after discharge from ED for MH/CD concern
mental health service penetration
substance use disorder treatment penetration
30-day psychiatric inpatient readmissions
depression: medication management
asthma: medication management

COPD: use of spirometry in diagnosis
hospitalization for COPD or asthma
diabetes: blood sugar testing
diabetes: blood sugar poor control
diabetes: eye exam
diabetes: kidney disease screening
diabetes: blood pressure control
cardiovascular disease: blood pressure control
cardiovascular disease: statin therapy
medication safety: adherence to prescribed medications
medication safety: hypertension medication monitoring
generic medication prescribing
appropriate testing for pharyngitis

avoidance of antibiotics for acute bronchitis
avoidance of X-ray, MRI, CT scan for low back pain
potentially avoidable ED use
ED visit rate
30-day all-cause hospital readmissions
Cesarean deliveries
hospital 30-day mortality for heart attacks
catheter-associated urinary tract infections
stroke care: timely thrombolytic therapy
patient falls with injury
patient safety for 11 indicators (composite)
annual per-capita state-purchased health care spending
Medicaid per enrollee spending
Public Employee per enrollee spending

Measures based on surveys or vital statistics typically *not* drawn from identifiable data

- Not typically able to assess custom groups defined by participation in intervention (e.g. waiver project)
- Able to assess groups defined by demographic characteristics including place

POPULATION-BASED SURVEY MEASURES

tobacco use
unintended pregnancies
immunization status
mental health status

VITAL STATISTICS-BASED MEASURES

immunization status

PATIENT EXPERIENCE SURVEY MEASURES

patient experience with primary care provider communication
patient experience (discharge information, medicine explained)

This is a simplified list of the common measure set for presentation purposes only. Full information on the common measure set can be found at http://www.hca.wa.gov/hw/pages/performance_measures.aspx

Who will measure Delivery System Reform project performance?

If measured by the state

Lessons learned

- In New York, much of the data needed for planning waiver projects comes from state claims data, which is on a year-plus delay.
- In addition, much of the data analysis is done by state and carries a large administrative burden that causes further delays in information disseminated to DSRIP implementers (providers).
- This causes significant obstacles in timely reporting of clinical outcomes for payment.

In Washington State…

- How will state assume the substantial administrative burden of performance measurement for ACHs?
- How will this administrative burden and the lag of claims data impact pay for performance reporting and payments?
- Will multi-provider/plan claims data be made available to ACHs and their partners for project planning?

If measured by ACHs & their partners

Lesson learned

- In Texas, DSRIP implementers (providers) do not have access to statewide claims data and must rely on internal data systems to report many population measures.
- This limited data reduces state's ability to measure waiver impact because reported data is not standardized across providers.

In Washington State…

- If statewide claims and other data sources are provided to ACHs/partners, how will state ensure that available data are timely and produced at required intervals (e.g. for quarterly reporting)?
- If providers/plans are instead expected to use their own internal data for performance measurement, how will state ensure that this is standardized across ACHs?
- What level of analytics and support will need to be given to ACHs and their partners?

Source: Chau, N. & Springer, H, *Lessons for Washington 1115 Waiver Participants*. Cope Health Solutions, 2015, https://copehealthsolutions.org/cblog/lessons-for-washington-1115-waiver-participants/

Sample DSRIP Dashboard from New York

Department of Health
Information for a Healthy New York

Return to Landing Page

Dashboard B4
Medicaid Members by Primary Diagnosis Class (CY 2014)

Geographic Filters

Member DSRIP Region
All

Member County/Borough
All

Member Current Zip Code
All

Provider Filters

Service County
All

Managed Care Plan Name
All

Note:
The region, county and zip code filters represent the Medicaid member's home area - typically their area of residency. The service county is where the service was rendered.

Source: Salient NYS Medicaid DSRIP Dashboard System Version 1.0

Widget 1: Unique Medicaid Members by Primary Diagnosis Class with Downlevel to Providers

Primary Diagnosis Class	Claim Count	Unique Members w Services
SIGNS, SYMPTOMS, AND ILL-DEFINED CONDITIONS	56,012,013	2,805,780
MENTAL DISORDERS ALL DSMIII C	40,888,050	1,177,223
SUPPLE CLASS/DESC OF PATIENT STATUS AND OTHER HLTH	30,994,079	2,753,137
DISEASES OF THE MUSCULOSKELETAL SYSTEM	25,077,448	1,494,055
REASON FOR SPECIAL ADMISSIONS AND EXAMS	19,364,179	2,211,713
ENDOCRINE, NUTRITIONAL, METABOLIC	15,846,262	1,271,241
NOT AVAILABLE	15,419,062	2,142,941
CIRCULATORY SYSTEM DISEASES	15,202,178	1,091,605
DISEASES OF THE NERVOUS SYSTEM	14,838,268	2,041,483
DISEASES OF THE RESPIRATORY SYSTEM	12,180,907	1,859,246
GENITOURINARY SYSTEM DISEASES	11,430,866	1,097,092
NATURE OF INJURY, ADVERSE EFFECTS AND POISONING	7,041,460	1,040,572
INFECTIVE AND PARASITIC DISEASE	6,893,818	1,217,742
DIGESTIVE SYSTEM DISEASES	6,282,155	1,042,620
NEOPLASMS	5,433,964	590,492
DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE	4,284,219	935,307
DELIVERY AND COMPLICATIONS OF PREGNANCY	3,800,481	260,305
DISEASES OF BLOOD & BLOOD FORM	3,027,627	334,781
CONGENITAL ANOMALIES	1,528,041	172,409
CERTAIN CAUSES OF PERINATAL MORBIDITY & MORTALITY	900,206	96,630
LIVEBORN INFANTS ACCORDING TO TYPE OF BIRTH	457,109	143,680
EXTERNAL CAUSE OF INJURY	73,795	15,840
Total (22)	296,976,187	5,607,650

Page 1 of 1

SIGNS, SYMPTOMS

Widget 2: Unique Medicaid Members by Current Age Group

00-05 06-11 12-17 18-44 45-64 65+

Widget 3: Unique Medicaid Members by Current FFS/MC Coverage

Managed Care FFS

High-level differences between WA and NY Medicaid waiver projects

Washington

Key players

- ACHs, working with providers and plans

Overall goal

- 80% value-based payments by 2019

Funding flow

- No current restrictions on funding flows to non-providers/plans

Data commitment to DSRIP leads

- Unclear whether ACHs will have access to anything other than summary-level dashboards/reports

Social determinants of health

- Intentionally addressed by multiple waiver projects

Performance metrics

- Will be based on WA state common measure set

New York

Key players

- Hospitals, working mostly with other providers

Overall goal

- 25% reduction in avoidable hospital use AND 80% value-based payments by end of 5-year waiver

Funding flow

- No more than 5% funding can flow to CBOs

Data commitment to DSRIP leads

- Substantial investment in building data portals, data extracts, and data dashboards for lead entities

Social determinants of health

- Limited focus potentially due to dominant role of hospitals AND limited funds to pay for social services and CBO-based efforts

Performance metrics

- Domain 2-4 metrics moderate overlap with WA state common measure set

Spotlight: Supporting data needs of housing-health partnerships in King County

Overview of DASHH and Mercy Housing Northwest projects

Shared Vision: Create a more comprehensive housing and health data integration effort to support public reporting, program evaluation, and data for cross-sector investments and elimination of health disparities.

Project	Description & Timeline	Connection to ACH	Data Integration Goal
Mercy Housing Northwest (MHNW): Affordable Housing- Health Housing- Health Integrated Data System	Six -month planning grant from Bill and Melinda Gates Found. (Mar. –Aug. 2016)	MHNW working with Providence CORE to scope what potential integration of WBARS housing data with Medicaid data would take	Annually merge client and building data (WBARS, HUD) into a single database with linked tables for individuals, households, facilities.
King Co. Data Across Sectors for Housing and Health (DASHH)	PHSKC received 18-month grant (Jan 16-June.17) from RWJF to build an integrated data system with the King Co. & Seattle Housing Authorities	RWJ Grant articulated an integrated data system to be built in conjunction with the KC ACH. Performance Measurement Work group to advise & assist.	Establish a regular and bidirectional data exchange between PHSKC and the PH authorities for planning/evaluation.

What Integration Opportunities are currently being pursued?

1. Commerce's Web-Based Annual Reporting System (WBARS) data as this is not available at the individual identifiable level for ideal linking to other data.

2. Integrate WBARS into RDA ICDB: Bringing this source into the RDA ICDB will potentially provide a comprehensive view of housing and other data sources for agency-funded reporting requests.

3. Homeless Management Information System (HMIS) moved from City of Seattle to King Co. and the Department of Community and Human Services (DCHS) on April 1, 2016.

Common data needs across housing-health initiatives

Proposed Datasets being used across Projects	Health and Housing*	DASHH
Web-Based Annual Reporting System (WBARS) Dept Commerce	X	
Homeless Management Information System (HMIS)**	X	
Client-level data from HUD data (PHA 50058)**	X	X
Medicaid claims P1	X	X

* Data sources included in the project are HCA Medicaid and public employee health care claims and encounters, Department of Health immunization records, and survey data from the Behavioral Risk Factor Surveillance System and the Pregnancy Risk Assessment Monitoring System.
** HUD and HMIS data integrated in RDA Integrated Client Database

APPENDIX

FOR MORE INFORMATION, CONTACT:

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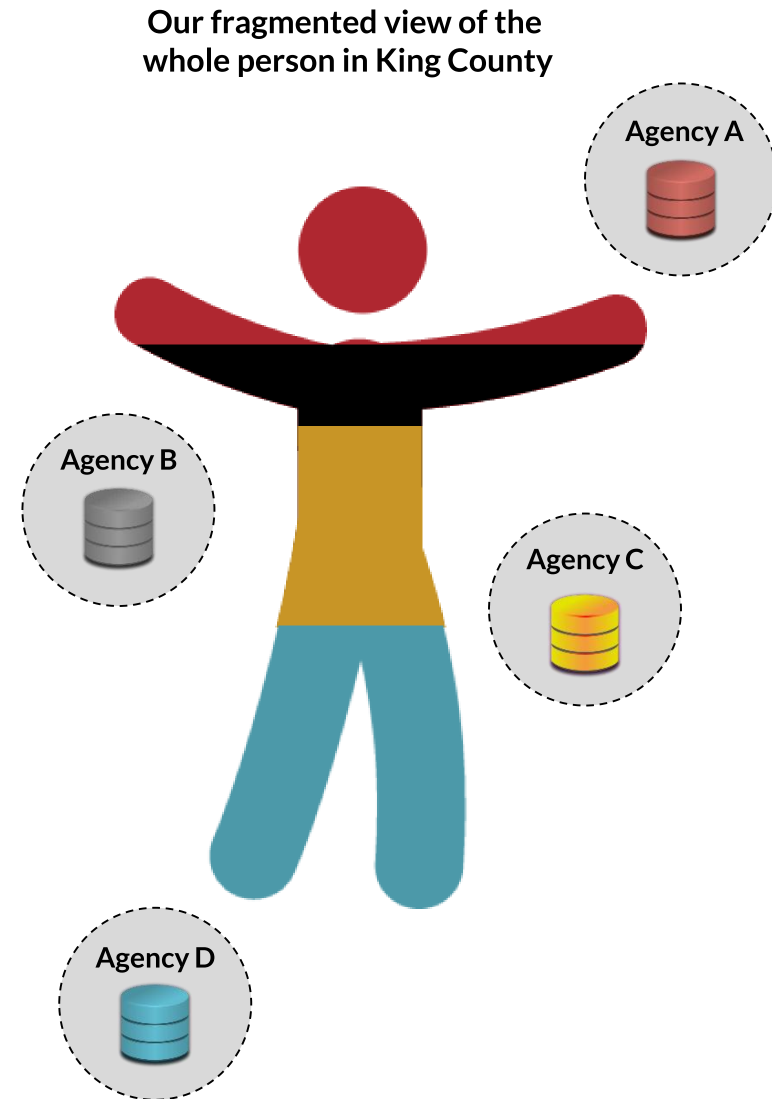
Why we are limited in our ability to break down health status by demographics

- In an era of data fragmentation, data systems are program specific and largely do not talk with each other
- This forces us to depend on population-based surveys and vital statistics for much of our health information
- While some vital statistics are linked routinely (e.g. birth and hospitalization), many vital statistics databases and most survey databases are not allowed to be linked for routine public health assessment, monitoring and evaluation
- If all-payer claims were linked to EHR data and human services data on all King County residents, this would create an environment in which we could better understand a fuller picture of individual and community health and identify disparities



Glossary of Terms

ACH – Accountable Community of Health

AIM - Analytics, Interoperability & Measurement

APDE – Assessment, Policy Development & Evaluation, PHSKC

BHO – Behavioral Health Organization

BHRD – Behavioral Health & Recovery Division, DCHS

BSK – Best Starts for Kids

CBO - Community based organization

CDR - Clinical Data Repository, Link4Health

COO – Communities of Opportunity

COPD - Chronic obstructive pulmonary disease

DAJD – King County Department of Adult & Juvenile Detention

DASHH – Data Across Sectors for Housing and Health

DCHS – King County Department of Community and Human Services

DOH - WA State Department of Health

DSA – Data Sharing Agreement

DSHS - WA State Department of Social & Health Services

DSRIP – Delivery System Reform Incentive Payments

EDIE – Emergency Department Information Exchange

EHR – Electronic health record

EMS – Emergency Medical Services, PHSKC

ER – Emergency room

HCA - WA State Health Care Authority

HHSTP – King County Health & Human Services Transformation Plan

HMIS – Homelessness Management Information System

ILC - Interim Leadership Council

JHS – King County Jail Health Services

KCIT – King County Information Technology

MCO – Managed care organization

MD – Medical doctor

MH/CD: Mental health/chemical dependency

MOU – Memorandum of Understanding

PA – Physician assistant

PHA – Public Housing Authority

PHSKC – Public Health – Seattle & King County

PMWG – Performance Measurement Work Group, King County ACH

PRSIM – Predictive Risk Intelligence System

PSB – King County Performance, Strategy & Budget

RWJF - Robert Wood Johnson Foundation

SDOH – Social determinants of health

SIM - State Innovation Model

VBP - Value-based payments