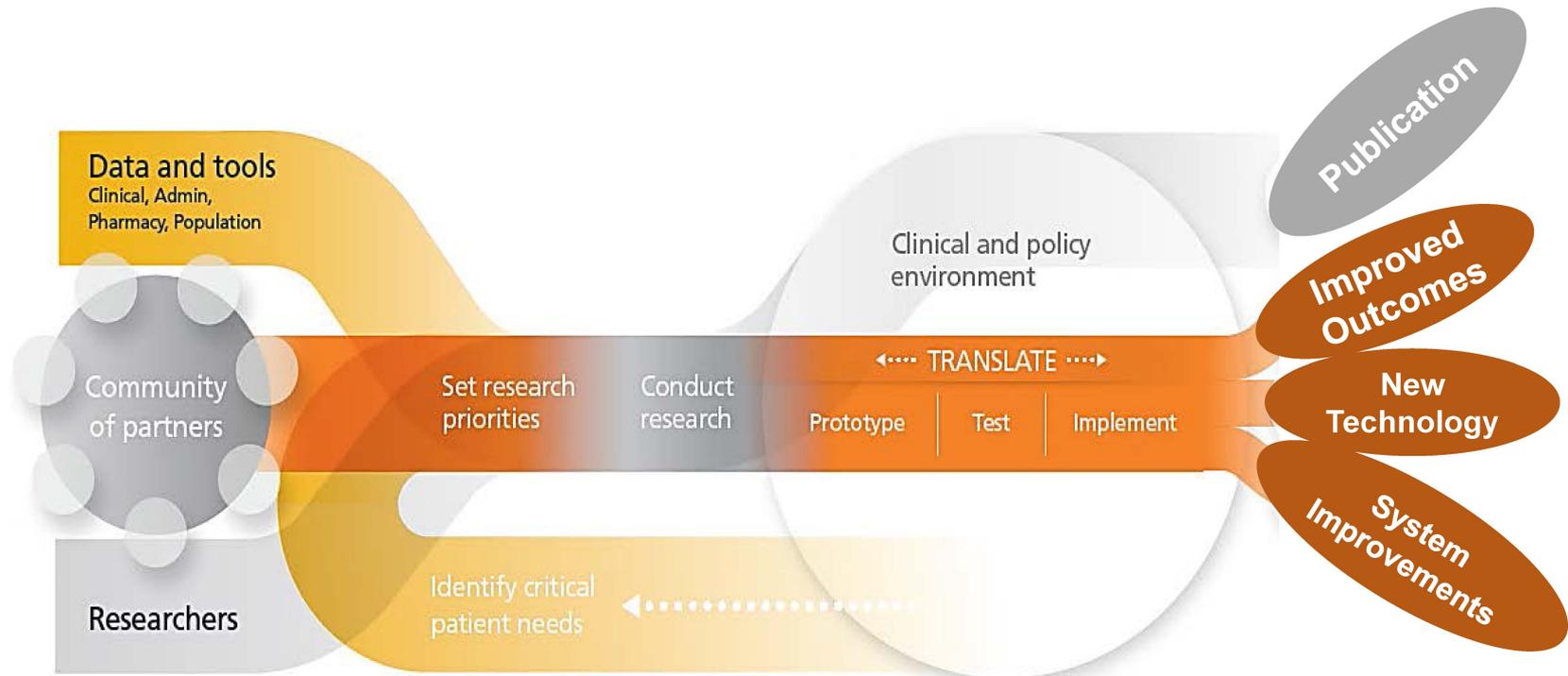


A novel node in the Learning Health Care System

December 2014

Paul.Wallace@optum.com

A Learning Health Care System...



Support research, incent innovation and guide organizational change through real-world translation across diverse clinical settings

Optum Labs: Five key assets to help solve many problems

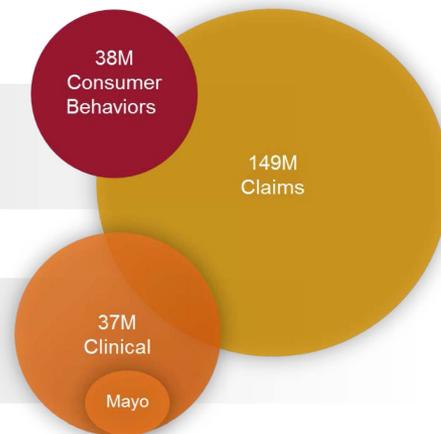
1 Linked medical claims/EHR data

2 Forums to convene collaboration

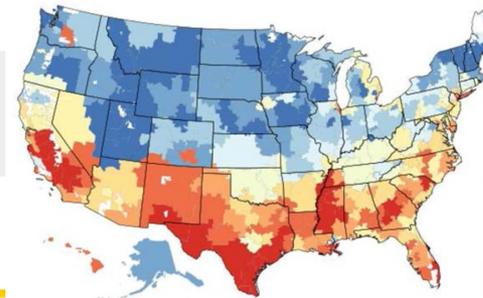
3 Translation partners

4 Experts on staff, within partners and alongside Optum

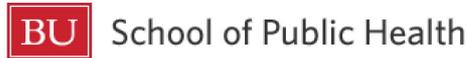
5 Data visualization “power tools”



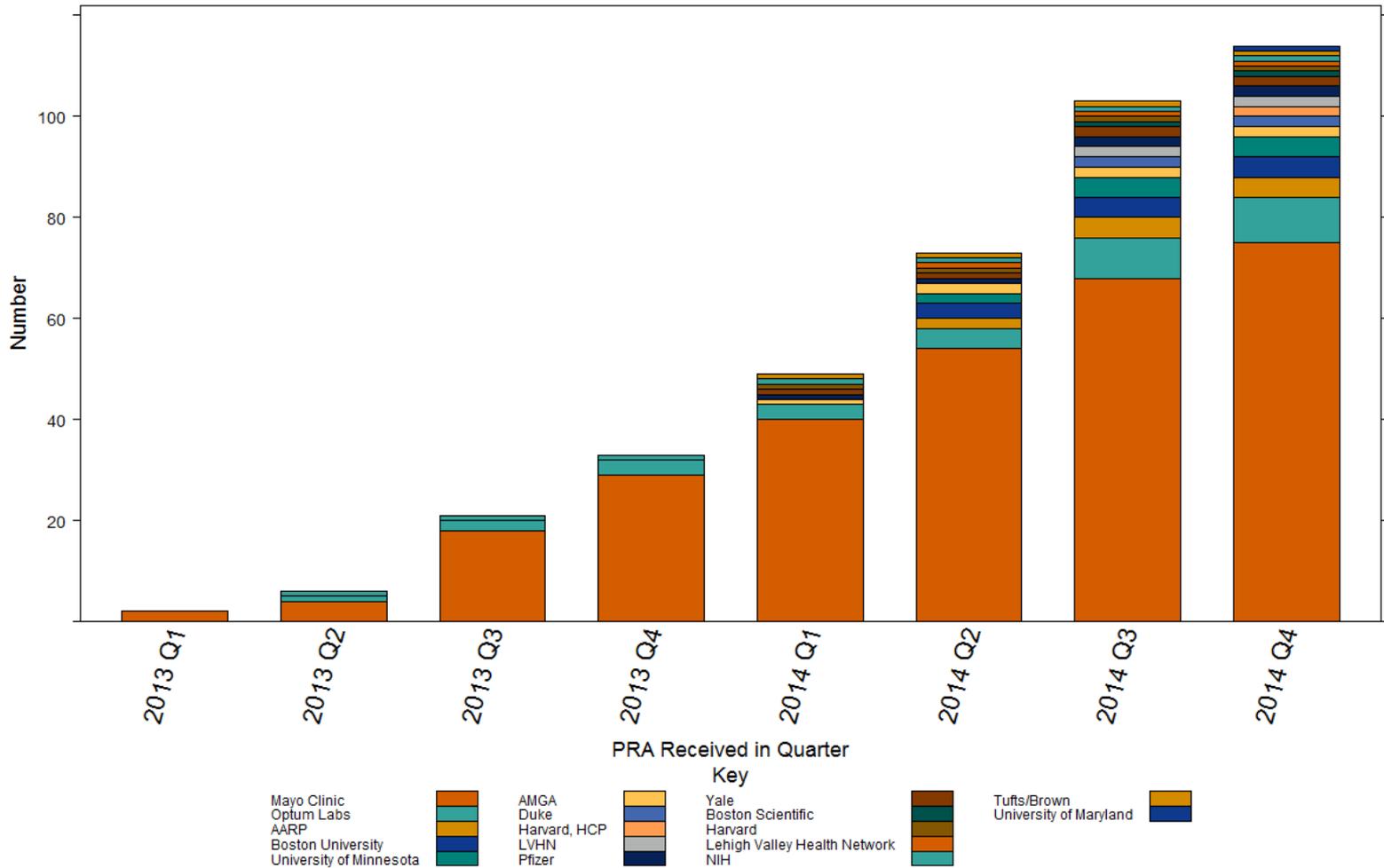
MAYO CLINIC



Optum Labs Partners

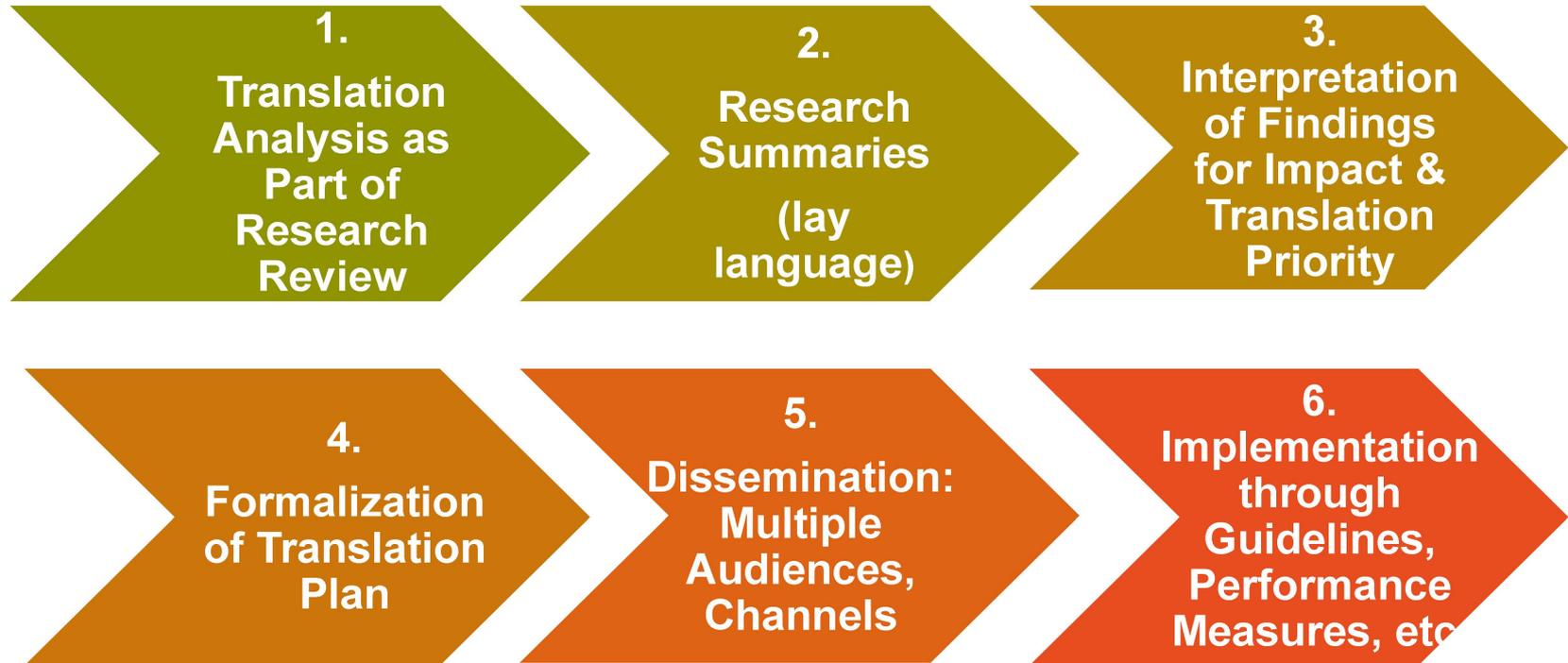


Research project pipeline is ramping up



Translation: Systematically Moving Knowledge into Action

Action Steps

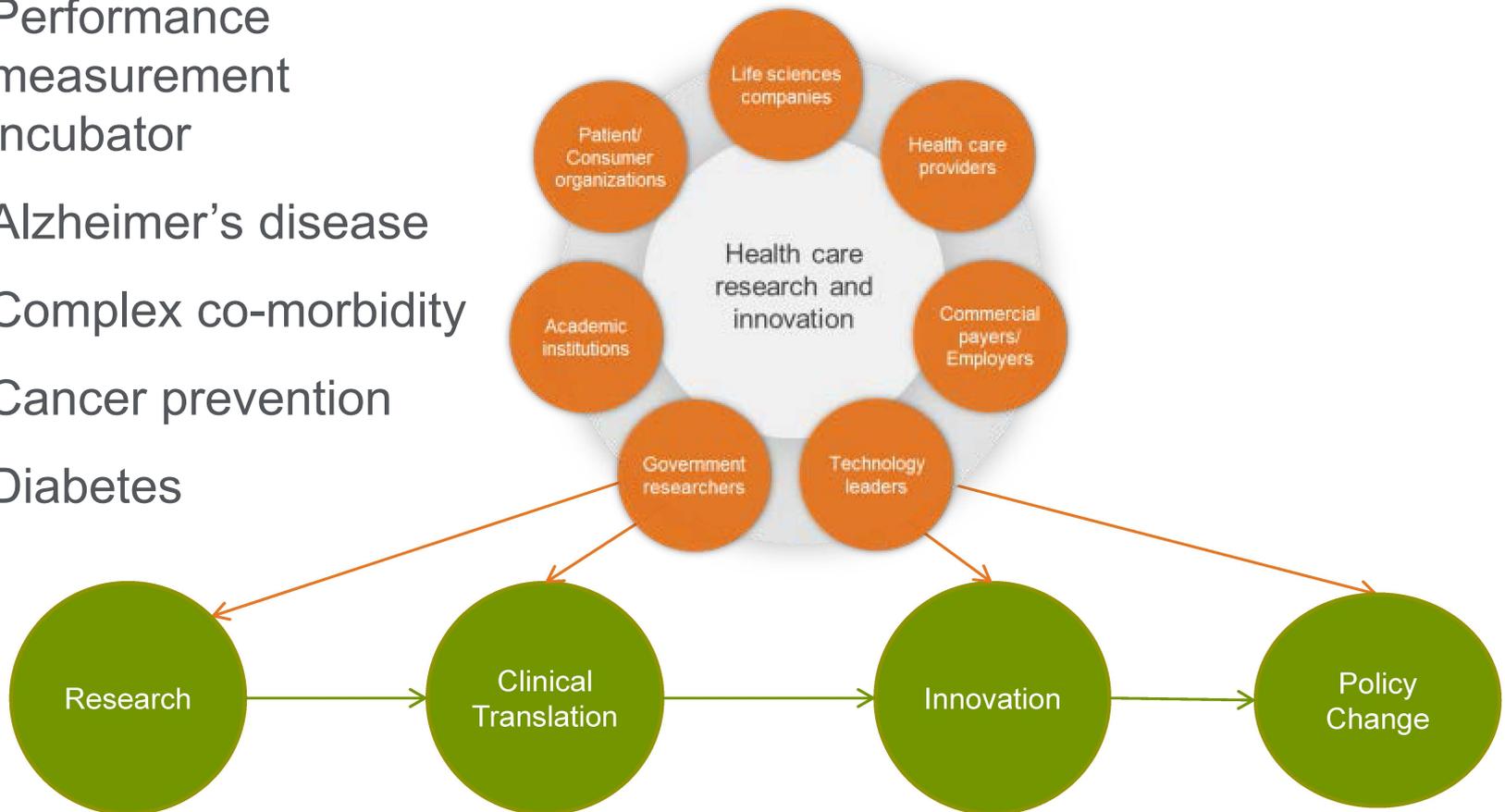


Optum Labs as a Facilitator of Translation among partners via “The Optum Labs Translation Network”

“Constellations”: National initiatives addressing big problems

In development:

- Heart failure
- Performance measurement incubator
- Alzheimer’s disease
- Complex co-morbidity
- Cancer prevention
- Diabetes



Policy Implications for the Learning Health Care System

- **Methods Development-** *Substantial potential for the safe and innovative use of de-identified data*
 - Extend observational approaches (RCT replication, efficacy to effectiveness extension)
 - Coordination of de-identification approaches with use of HPI (Registry specifications, care personalization)
 - Machine learning
- **Governance opportunities**
 - Informing and engaging IRBs, especially as methods and data sources evolve
 - Refining the relationship between QI and research
 - Guidance in use of observational methods and de-identification
- **Sustainability**
- **Balance of research, translation and commercialization**
 - Institutional needs for rapidly implementable knowledge and
 - Time-related aspects of competitive advantage and market positioning.

Our Data Today: Claims, EHRs & Consumer

315 million U.S. population

>38 million
Consumer

>149 million
Administrative

Mayo

37 million
Clinical

2,000+ data fields:

- Medical claims
- Pharmacy claims
- Lab claims and results
- Health risk assessments
- Standardized costs of care
- Race
- Income
- Education level
- Language preference
- Household
- Geography
- Mortality

} Tests,
Treatments

Expanded insights with deeper clinical context

500+ additional data fields:

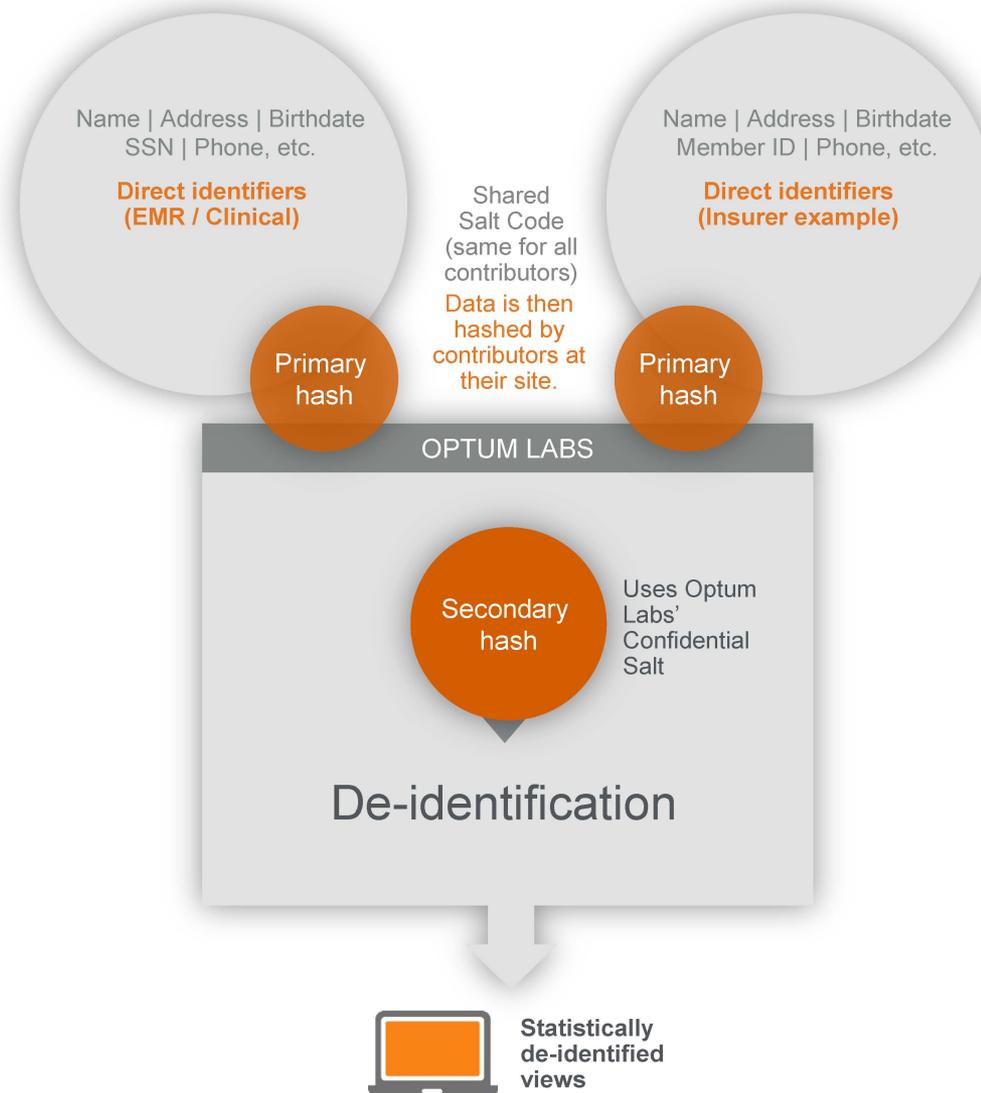
- Encounters
- Vitals
- Labs
- Medication orders
- Procedures
- Admissions, discharges and transfers
- Patient appointments
- PHQ-9
- Patient-provided information

Expanded insights with consumer data

300+ additional data fields:

- Purchase Behavior: general trends
- Demographic view including Income, Assets, Home Value, Education Level, Marital Status, Occupation, Home Ownership, Household Make-Up (multi-generational, presence of: children, grandchildren, grandparents), Ethnicity Data
- Psychographic Data including interest and participation in : travel, various leisure activities, charitable giving, advocacy, volunteering, community involvement

Data from disparate sources can be linked and de-identified



Optum Labs employs certified de-identified data sets, together with a hashing methodology to enable matching individuals from multiple sources, yet preserving statistical de-identification.

Virtual Sandboxes: How to Access The Data

