

SAMPLE OF PRAPARE DATA USE FOR POPULATION MANAGEMENT, PREDICTIVE MODELING AND CARE MANAGEMENT PROGRAM

AIMS:

- Measure the impact that social determinants may have on the health of an individual, panel, or patient population.
- Predict which patients are at risk for chronic disease, poor outcomes and preventable utilization of costly health care services. With 3 years of care coordination had their risk improved?

BENEFITS:

- Has the capacity to incorporate SDH and psychosocial factors to produce a holistic risk score.
- These more holistic risk scores would then dictate the level of intervention needed.
- Intention is for those with moderate to high risk scores to be referred to a care coordinator for more thorough assessment and care plan development.

Methodology

COHORT

- Cohort of 500 adult non-pregnant, Medicaid patients from Waianae Coast Comprehensive Health Center (WCCHC) in Waianae, Hawaii
- Patients had diabetes and/or CVD followed by care coordination since 2013
- Patients were stratified into various risk levels based on probability of complications and cost
- When initially selected, this cohort was risk stratified as moderate to high risk based on claims based predictive modeling.



CALCULATION OF RISK SCORES

- Used Altruista's Predictive Modeling program with a subsample of 100 patients to calculate risk scores incorporating PRAPARE social determinants of health (SDH) data. The algorithm quantifies the relative impact of each SDH factor on patients' risk for poor outcomes.
- Interface built between WCCHC EHR and Altruista that uses a combination of payer claims data, EHR data, and pharmacy claims
- Weights assigned to the PRAPARE data
- Data is currently being validated to ensure accuracy.
- The value of the risk score can be associated with the relative amount of additional resources required to support those patients compared to patients with a lower risk profile.
- At the patient level, risk scores should function as "risk profiles" such that the information is useful to patients.
- At the population level, the algorithm quantifies the relative impact that social barriers have on the population's disparate health outcomes and its resultant predisposition to higher healthcare utilization and higher cost.

OVERALL

LESSONS LEARNED



- Important to collect enabling services data to complement & provide context for SDH data.
- Subjective process at times, unlike claims-based actuarial predictive modeling developed with large data samples.
- Important to conduct validation between claims based scores and SDH scores

ASSESSING SDH WILL ALLOW CHCs TO:

- Comprehensively address patient health needs.
- Predict which patients are at risk for chronic disease, poor outcomes and preventable utilization of costly health care services.
- Work with payers to ensure that CHC model of care is adequately reimbursed.
- Evaluate the impact specific interventions (e.g. enabling services) have on patient health.