



*Dr. Rina Ramirez*  
*Chief Medical Officer*

# Risk Stratification

## *Field Example:*

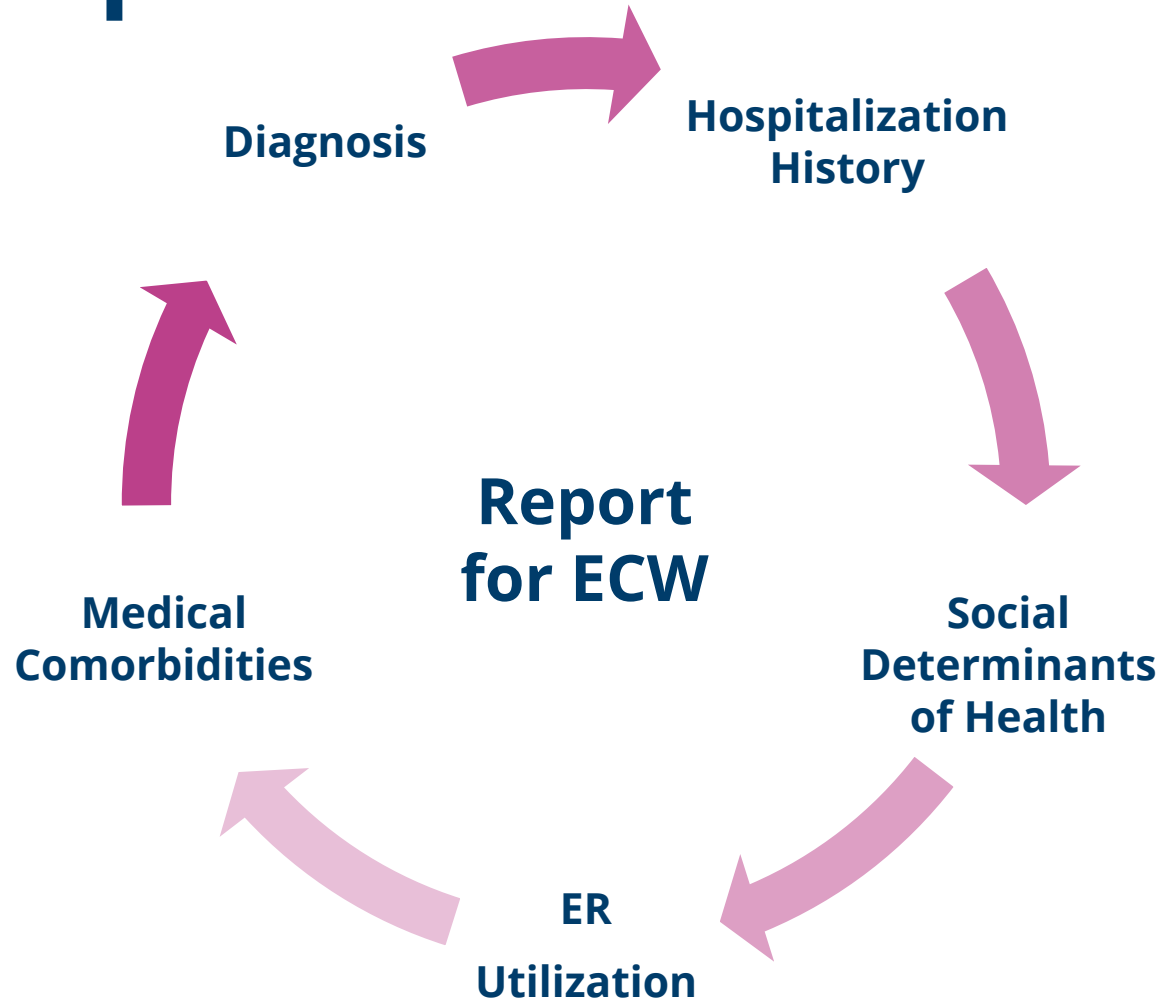
## Zufall Health Center



# *Step 1:* **COMPILE** a list of health center patients

- **Organized action team:** QA/PI Program Manager, Data Analyst, CMO, and Physician Leads
- **Reviewed NACHC's Risk Stratification Action Guide** and other resources
- **Reviewed Empanelment Report:**
  - All adult medical patients seen at least 1x in past year
  - Full demographics documented: special population status (e.g., homelessness, lack of insurance, best served in another language)
  - Complete problem list with ICD-10 codes
  - Complete medication list
- **Determined team capacity** to create its own high-risk stratification report using data from eCW

# Creating Our Risk Stratification Report



These are some of the indicators that help determine risk, but the combinations and weighted scores tell us the complete story



## *Step 2:* ***SORT*: Identify risk stratification criteria**

Team met several times to determine initial and secondary clinical conditions and indicators to include as part of risk stratification

Seven initial clinical conditions/indicators were selected based on NACHC's Guide, other resources, and our own data

- Cancer
- PHQ 9 >20
- Congestive Heart Failure
- COPD
- End Stage Renal Disease
- High Risk Medications
- Atrial Fibrillation



# Step 2:

## SORT: Assign each criteria a weight

### In addition to the initial indicators:

- Included high risk medications
- Added secondary ones such as obesity, fall risk, insurance status
- “Weighted” criteria using a simple number system
- Cumulative score is used

Social Driver	Weight
Cancer	10,000
End Stage Renal Disease	9,000
Congestive Heart Failure	8,000
High Risk Medications	7,000
Chronic Obstructive Pulmonary Disease	6,000
Diabetes	5,000
Substance Use Disorder	4,000
PHQ-9>20	3,000
Obesity	2,000
Impaired Eyesight (Frailty – Risk of Falling)	1,000
Emergency Room Visit(s)	400
Special Populations	100
Uninsured	200
Language Concerns	300
Medical Appointments:	
• >10 visits / 12 months	200
• <10 visits / 12 months	100

## *Step 3:*

# **STRATIFY: Assign patients into target groups**

**Ranked patients** based on their cumulative score, from highest to lowest number of points

**Developed report** to capture this data real-time

**Reviewed with providers** to ensure that patient risk was calculated and captured accurately

**Shared data visualization report** with all clinical staff including clinicians, nurses and case managers for review and action

**Wrote policy** and obtained Board approval

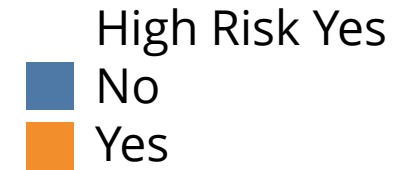
# Example Risk Stratification Report

## High Risk Patients

Reporting Period: 1/1/2021 - 12/31/2021

High Risk Rank	Patient ID	Site
1		ZHC Hackettstown Medical
		ZHC Morristown Medical
		ZHC Dover Medical
		ZHC West Orange Medical
		ZHC Somerville Medical
		ZHC Newton Medical
2		ZHC Plainsboro Medical
		ZHC Morristown Medical
		ZHC Somerville Medical

Site  
All



Patient ID	Age	Special Pop	Uninsured	Other Language..	DM Status	Cancer Status	CHF Status	COPD Status	BH Diag Status	Substance Use	Obesity Status	Atrial Fib Status	ESRD Status	High Risk Meds ..	Stage 3 Kidne:
19		No	No	No	No	No	No	No	No	No	No	No	No	Yes	No
19		No	No	No	No	No	No	No	Yes	No	No	No	No	Yes	No
19		No	No	No	No	No	No	No	No	No	No	No	No	Yes	No
19		No	Yes	No	No	No	No	No	No	No	No	No	No	Yes	No
19		No	No	No	No	No	No	No	Yes	No	No	No	No	No	No
19		Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	No	No
19		No	Yes	No	No	No	No	No	Yes	No	No	No	No	Yes	No
19		No	Yes	No	No	No	No	No	No	No	No	No	No	Yes	No
19		No	Yes	No	No	No	No	No	Yes	No	No	No	No	Yes	No



## Step 4: **DESIGN: Care models and target interventions for each risk group**



### Care Models Incorporate Clinical Guidelines such as:

- **Diabetes:** American Diabetes Association
- **HTN:** Joint National Committee 8 HTN Guidelines & American College of Cardiology (ACC)/American Heart Association (AHA) Guidelines
- **Hyperlipidemia:** ATP III Risk Assessment Recommendations & ACC/AHA Expert Panel
- **Congestive Heart Failure:** ACC/AHA Guidelines
- **HIV w/viral loads >200:** IAS USA Practice Guidelines
- **Obesity:** NHLBI NIH