ASCVD 10-Year Risk Score in DRVS

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The goal of an ASCVD 10-year Risk calculator is to aid in the prevention or delay of ASCVD and related conditions by estimating the risk of developing ASCVD based on certain demographics, lifestyle choices, diagnoses, medications, and vitals.

Azara's ASCVD 10-year risk calculator is sourced from the 2013 American College of Cardiology and the American Heart Association Guideline on the Assessment of Cardiovascular Risk which used a pooled cohort equation to develop the risk calculation. The guideline defines ten-year risk as the risk of developing a first ASCVD event—non-fatal myocardial infarction or coronary heart disease death or fatal or nonfatal stroke—over a 10-year period among people free from ASCVD at the beginning of the period.

The risk estimator is for patients age 40 to 80 years old who do not have evidence of already having ASCVD, including events and procedures such as myocardial infarction, stroke, CABG, and stent or patients with LDL level (at any point) greater than 190 or having familial hypercholesterolemia. These factors assist in identifying patients who have not had a prior ASCVD event and assign a 10-year risk score. Patients are considered at elevated risk if the 10-year risk score is ≥7.5%.

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The DRVS ASCVD Risk Calculator calculates risk using a specific set of factors, which include:

Criteria	Parameters
Age	40-80 years old
Sex at Birth	Male or Female
Race	African American or Non-African American
Total Cholesterol	Most recent result in last 5 years
HDL Cholesterol	Most recent result in last 5 years
Systolic Blood Pressure	Most recent result in past 730 days (2 years)
Smoking Status	Most recent result in past 730 days (2 years)
History of Diabetes	Active in last year
Treatment for Blood Pressure	Active medication in last year

The ASCVD risk criteria values are available in the ASCVD Ten Year Risk registry along with a risk level and risk score for each patient with data available.

Risk Level	Risk Score
High Risk	>=20%
Intermediate Risk	7.5% - <20%
Borderline Risk	5% - <7.5%
Low Risk	<=5%
Missing Data	Missing data criteria needed for calculation
N/A	Patient has exclusion to ASCVD Risk calculation

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Glossary

ASCVD – Atherosclerotic cardio vascular disease

Registries

- ASCVD 10-Year Risk Registry
- Social Needs All Patients
- Social Needs Assessed
- Custom Registries as designed by community health center
- Custom cohorts can be created and applied across all tools

CPCI Tools

Registries
Cohorts
Patient Visit Planning
Alerts

User Guide References

Registries
Scorecards
Dashboards
Cohorts
Patient Visit Planning (PVP)

> Watch the ASCVD 10-Year Risk Calculator video here.

Use Cases

Tools for Point of Care

- Using the Patient Visit Planning report and alerts.

Identify patients with missing or out-of-date criteria

- Identify patients with elevated risk of ASCVD.
- Identify patients for outreach.
- Review patients with elevated ASCVD risk by specific chronic conditions who are not already being treated with statin, aspirin or HTN treatment who do not have an appointment.
- Identify patients with insufficient data (missing or out of-date) to calculate risk.

Evaluate at Risk Populations with Social Determinants of Health (SDOH)

- Evaluate ASCVD risk for patients with elevated or specific SDOH risk.

Evaluate Improvements in Care Gaps related to ASCVD

- Identify and review missing data points.
- Identify patients with high ASCVD risk and review for appropriate treatment with pharmacotherapy.
- Identify gaps in statin/Ischemic Vascular Disease therapy for high ASCVD risk patients.

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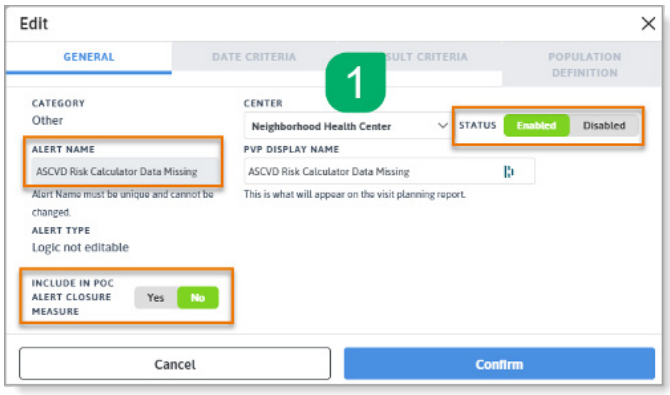
This summary of tools in DRVS related to the ASCVD Ten Year Risk functionality and specific use cases will assist you in identifying patients with ASCVD risk, those with insufficient information to adequately assess risk and utilization of ASCVD risk with specific populations already at greater risk due to their chronic conditions.

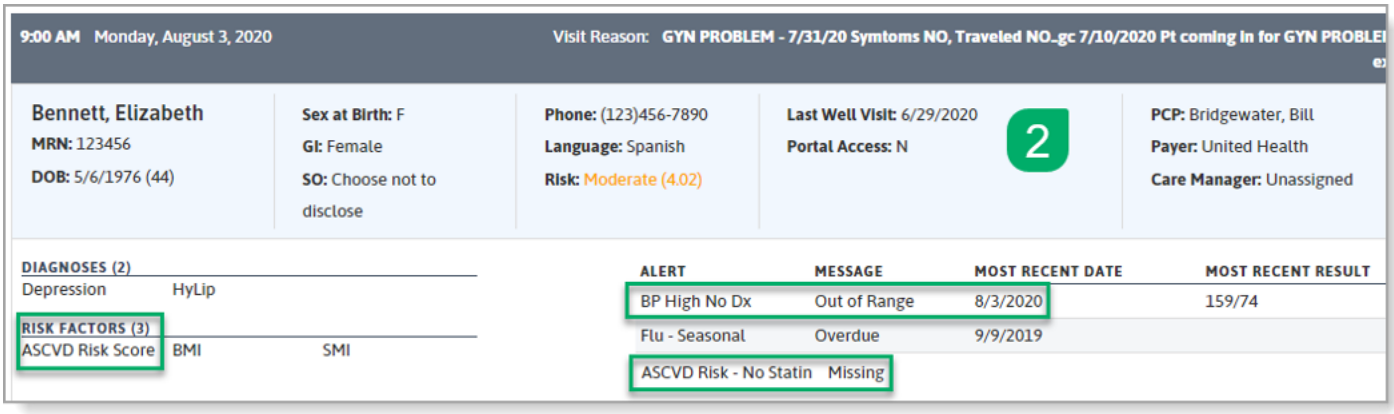
As you review the tools, consider the resources available and current workflows to determine where and who should use the tools for the best results. There is applicability for care team support and providers for pre-visit planning, at point of care, post visit treatment planning and for broader population health initiatives.

Tools at Point of Care

1. Use Alert Admin to review and edit the alerts related to ASCVD risk. Verify that the alerts are enabled and are included on the POC Alert Closure Measure (Center Admin).
    - ASCVD Risk Calculator Data Missing, Elevated ASCVD Risk Statin Rx, BP High No Dx, Aspirin, LDL.



2. Run the Patient Visit Planning report 24 hours in advance to anticipate tests and/or needed treatments (Provider or Care Team Member).



- Use the Risk Factors section of the PVP to identify patients with ASCVD risk. ASCVD risk level is displayed if it is borderline, intermediate, or high.
- Check the Alert messages and enter orders for patients with ASCVD Risk Calculator Data Missing.

3. Use the ASCVD Ten Year Risk registry to inform treatment options before or after a visit (Provider or Care Team Member).
    - Run the ASCVD Ten Year Risk registry for recent visits or upcoming appointments to assist with treatment or follow up recommendations related to ASCVD risk.
    - Run the ASCVD Ten Year Risk registry with appropriate past or future date range.
        - Review patients' missing or out of date data to inform upcoming care.
        - Sort by ASCVD risk level and review "HTN MED", "Statin Med" and "ASA/Anti-platelet" columns to inform treatment conversations with patients.

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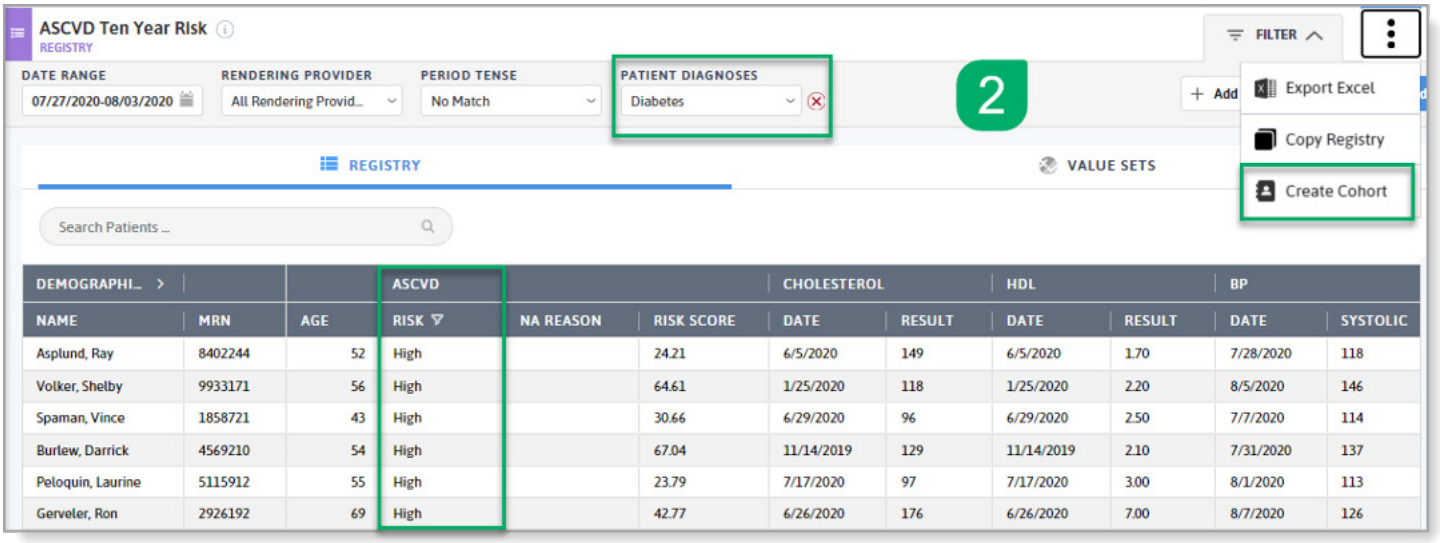
Identify patients with elevated risk of ASCVD

1. **Identify patients with high risk of ASCVD for outreach (Care Coordinator/Quality Improvement).**
   - Run the ASCVD Ten Year Risk registry for a designated period.
   - Use the registry column header filter to display patients with an ASCVD Risk of 'High'.
   - Identify patients who need an appointment. Start with a period of one month and expand the time as needed to identify patients who need an appointment or should be targeted for review for additional treatment.

2. **Review patients with elevated risk by specific chronic conditions and with no treatment or appointment.**



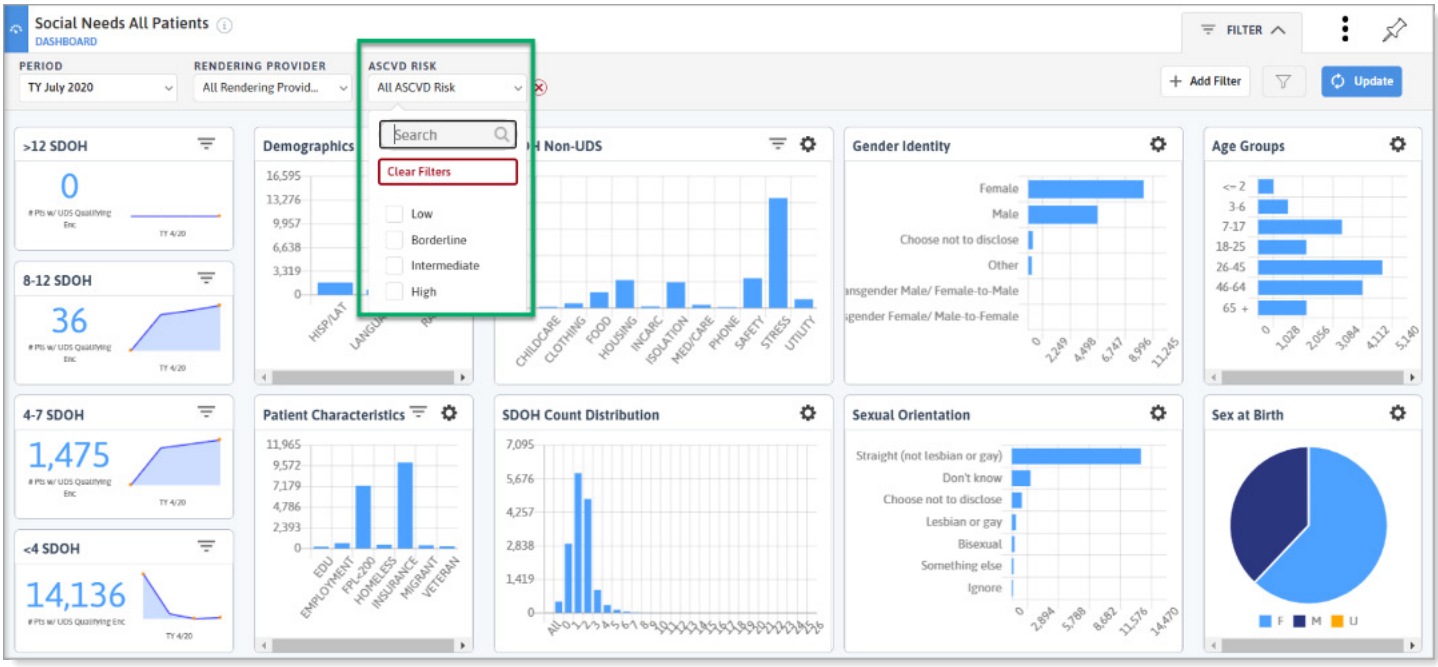
   - Filter the ASCVD registry to a specific chronic condition e.g., hypertension or diabetes. Filter to patients with an ASCVD Risk of 'High'. Identify patients who need an appointment or should be targeted for review.
   - Create a Cohort of patients with a chronic condition not in control. Apply the Cohort to the ASCVD registry and evaluate risk and treatment consideration.
   - Create a custom registry for a chronic condition, adding ASCVD Risk level and score, along with other desired criteria to better manage that group of patients.

3. **Identify patients with insufficient data (missing or out-of-date) to calculate risk.**
   - Run the ASCVD registry for the appropriate period.
   - Use the registry column header filter to display patients with ASCVD Risk 'Missing Data'.
   - Filter the "Next Appointment" column to patients with upcoming appointments to order the appropriate labs to satisfy their missing data elements. Or filter the "Next Appointment" column to patients without an upcoming appointment and conduct outreach to get them seen at your center.
   - Use the Point of Care tools discussed earlier to ensure patients with insufficient data get the data needed to calculate their risk.

Evaluate at Risk Populations with Social Determinants of Health (SDOH)

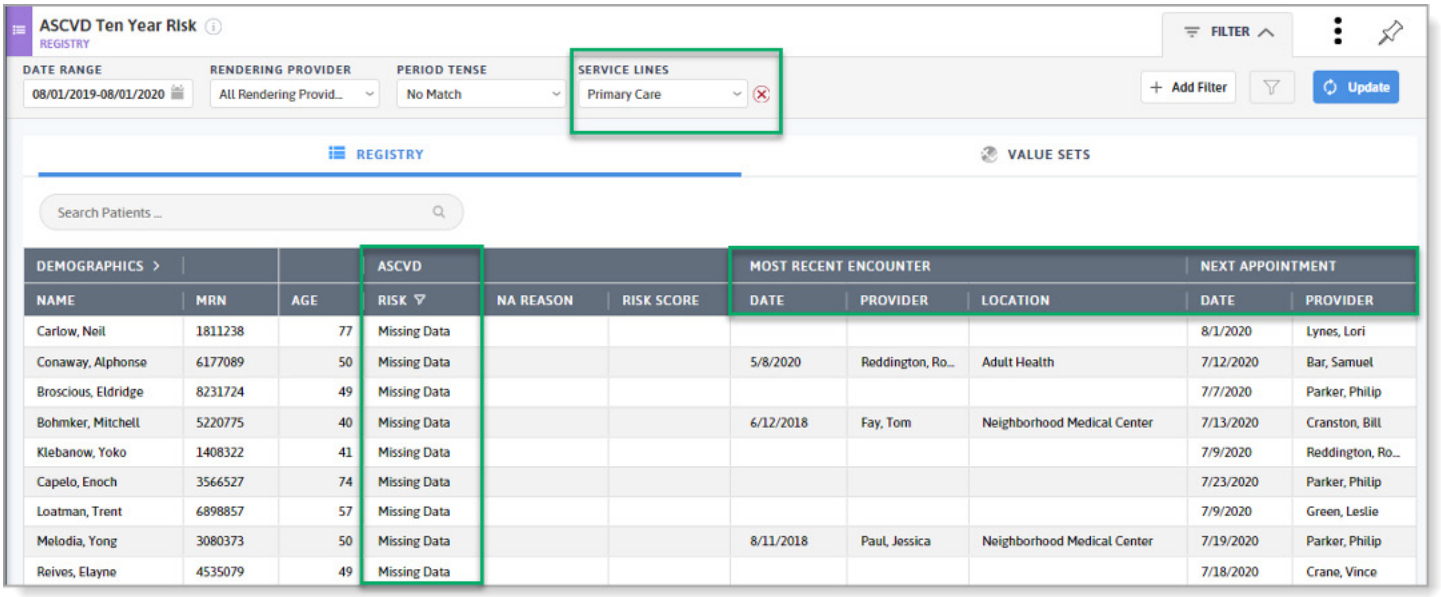
1. **Run the ASCVD registry.**
   - SDOH trigger information and total tally (number of SDOH risks) are available as registry columns for easy visibility when reviewing patients' ASCVD risk. Use the column header to filter to specific SDOH risks.
   - Use the SDOH and SDOH Count filters on the registry to filter to specific SDOH criteria, such as food, transportation, or stress.

2. **Run the Social Needs All Patients or Social Needs Assessed dashboards.**
   - Filter the dashboard to High and Intermediate ASCVD risk patients to see graphical representation of social determinants impacting the health of patients with higher ASCVD risk. This can be useful for identifying and addressing the needs of high-risk patients based on both clinical indicators and social need, such as food insecurity and lack of stable housing.



Evaluate Improvements in Care Gaps related to ASCVD

1. **Establish baseline data for area of interest regarding ASCVD (Quality Improvement).**
   - Identify patients seen in the last 12 months without an ASCVD calculation due to missing data.
     - Use a custom date range of one year and sort the Risk column to 'Missing Data'.
     - If the number is exceptionally large, consider focusing on patients with a primary care appointment.
     - Review missing data points to look for any patterns, e.g., missing cholesterol values or provider variation.
     - Record the value for comparison at a future date.



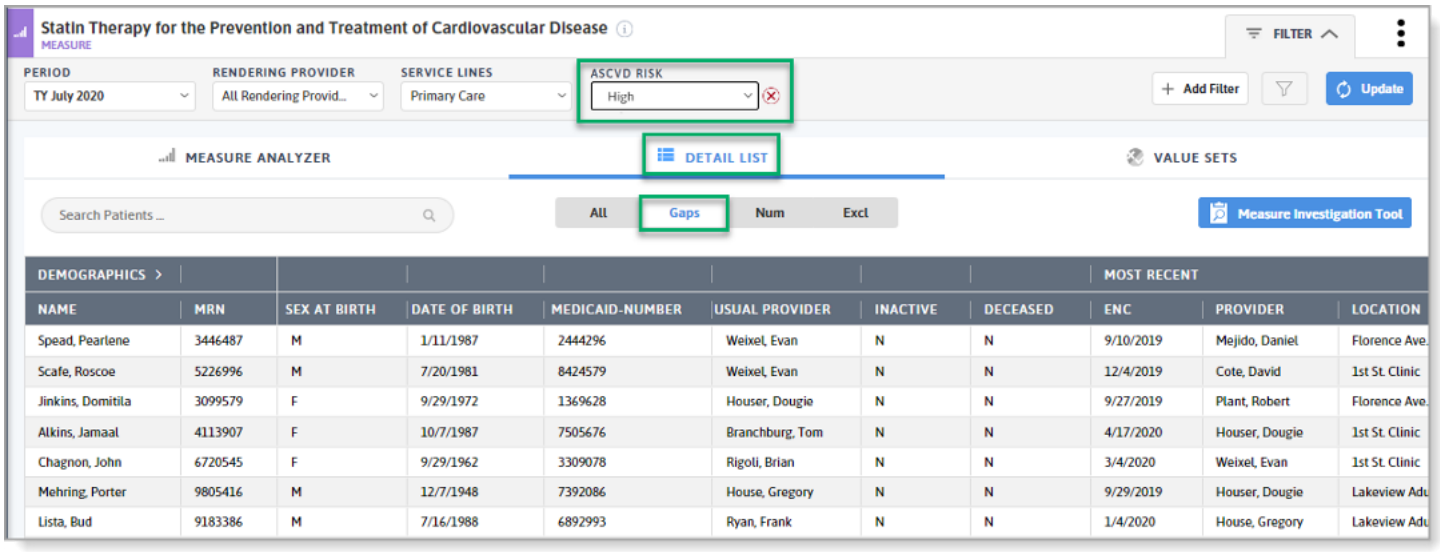
DEMOGRAPHICS			ASCVD			MOST RECENT ENCOUNTER			NEXT APPOINTMENT	
NAME	MRN	AGE	RISK	NA REASON	RISK SCORE	DATE	PROVIDER	LOCATION	DATE	PROVIDER
Carlow, Neil	1811238	77	Missing Data						8/1/2020	Lynes, Lori
Conaway, Alphonse	6177089	50	Missing Data			5/8/2020	Reddington, Ro...	Adult Health	7/12/2020	Bar, Samuel
Broscious, Eldridge	8231724	49	Missing Data						7/7/2020	Parker, Philip
Bohmker, Mitchell	5220775	40	Missing Data			6/12/2018	Fay, Tom	Neighborhood Medical Center	7/13/2020	Cranston, Bill
Klebanow, Yoko	1408322	41	Missing Data						7/9/2020	Reddington, Ro...
Capelo, Enoch	3566527	74	Missing Data						7/23/2020	Parker, Philip
Loatman, Trent	6898857	57	Missing Data						7/9/2020	Green, Leslie
Melodia, Yong	3080373	50	Missing Data			8/11/2018	Paul, Jessica	Neighborhood Medical Center	7/19/2020	Parker, Philip
Reives, Elayne	4535079	49	Missing Data						7/18/2020	Crane, Vince

   - Identify patients with a high ASCVD Ten Year Risk and appropriate treatment with pharmacotherapy in the last 12 months.
     - Use a custom date range of one year, filter to primary care service line and sort the risk column to High.
     - Review columns for HTN Med, Statin Med and ASA or Anti-Platelet treatment.

DEMOGRAPHICS		ASCVD	HTN MED			STATIN MED			ASA OR ANTI-PLATELET	
NAME	MRN	RISK	START DATE	STOP DATE	NAME	START DATE	RXNORM	NAME	DATE	NAME
Ferrel, Lacey	3638269	High								
Lagatella, Flossie	2832682	High	5/13/2020	12/31/4700	LISINOPRIL	5/13/2020	314231	SIMVASTATIN	5/13/2020	ASPIRIN
Wittlin, Pricilla	8894026	High	8/4/2020	12/31/4700	LISINOPRIL-HYDROC	8/4/2020	617311	ATORVASTATIN CALCIUM	8/4/2020	ASPIRIN 81
Quall, Cristine	8177027	High								
Mckechnie, Oneida	4514448	High								
Muckelvaney, Nancey	7173151	High								
Corsoro, Davina	8285290	High								
Deatherage, Willia	5198707	High	8/27/2016	12/31/4700	LISINOPRIL					

- Identify patients that are not meeting the Statin Therapy measure (CMS347v3)* by ASCVD risk.
  - Run the Statin Therapy measure for the most recent trailing year period, applying the ASCVD Risk filter.
  - Identify and evaluate care gaps through the patient detail list.

* Other potential measures to use are IVD Aspirin Use, Hypertension Controlling High Blood Pressure, Tobacco Screening and Cessation, and Diabetes A1c >9 or Untested.



- Evaluate responsiveness to ASCVD alerts on the PVP.
  - Run the Alert Closure - Point of Care (POC) measure.
  - Filter to primary care providers and the ASCVD alerts (ASCVD Missing Data and ASCVD No Statin).
  - Evaluate alert closure rate by provider team and specific alert.
  - Provide feedback to the care team.