Using Registry Data: It Depends on How You Slice the Pie.

MARGARET J DUNBAR*, PAM TALBOT, ZLATKO KARLOVIC, LYNNE HARRIGAN, BETH CUMMINGS, Diabetes Care Program of Nova Scotia, Halifax, NS.

Access to demographic and outcome data for clinically confirmed diabetes (DM) cases can influence practice at the provider/local level and inform provincial directions and policy decisions. The Diabetes Care Program of Nova Scotia (DCPNS) Registry provides Diabetes Centres and referring physicians with access to individual and population level data. Initiated as a centralized provincial database in 1994 to capture demographic and visit information, this dynamic registry has evolved to on-site use for the capture and analysis of utilization and outcomes data (inclusive of clinical and self-care measures).

The utility of the DCPNS Registry for understanding DM in NS cannot be understated. Here we demonstrate the value of exploring data from many perspectives—including by DM type and duration, age (deciles from 19+ yrs), sex, and geography when looking at key measures (A1c, BP, and LDL-C).

Using 2009/10 data, ~12,000 follow-up adult cases ($\geq$ 19 years) with types 1 and 2 DM were reviewed and stratified by health authority, age, and sex.

A1c: 47% attained target (<7%); 16% had values $\geq$ 8.5%. Overall, there was no difference between the sexes, but when examined by age group & sex, males (M) and females (F) between the ages of 19-39 had the highest proportion $\geq$ 8.5% with M faring worse that F at 45% and 31%, respectively. When the analysis was restricted to type 2 cases only, the pattern remained, but the percentages dropped to 27% and 18% respectively. BP: 44% attained target (< 130/80); 27% had values $\geq$ 140/90. Percentages varied by sex, 47% of F attained target compared to 42% of M. When examined by age group & by sex, a higher proportion of F were within target across all age groups to 60-69, and then fell below M at 38% in those 80+ yrs. LDL-C: 71% attained target (<2.5); 7.5% had values $\geq$ 3.5. This varied by sex, with 74.1% of M attaining target compared to 67% for F. When examined by age group & by sex, M had a higher proportion < 2.5 across all groups. Females between 19-39 and 40-49 had the lowest proportion within target, 46% and 59%, respectively.

There are important differences in attainment of targets by age and sex. Clinical perspective, such as the proportion of a group with type 1 DM or with women of childbearing age is important to put these numbers in context. The reasons for and impact of these differences require consideration when assessing adherence to and setting targets for DM management across the continuum. In order to target interventions, it is important and helpful to review & interpret data separately for males and females and various age groups.