

## **Conclusion of the EAC on the findings of the General Practitioner data analysis for the Upper Hunter**

There are no significantly higher rates of any problems managed or medications prescribed or supplied in the Upper Hunter region than in the rest of non-metropolitan NSW recorded in BEACH study data over the period 1998 to 2010. This means that we can be reasonably confident that the rates of illness in people presenting to GPs in the Upper Hunter Region are similar to the rates in people in comparable areas of NSW.

Rates of management of asthma, sinusitis, tonsillitis, and acute otitis media were higher in the Upper Hunter region than in the rest of non-metropolitan NSW but these increases were not statistically significant. Similarly, bronchodilators and asthma preventives were prescribed at higher rates in the medication subgroup analysis but these differences were also not statistically significant. Modestly higher or lower rates of an illness are expected when comparing one population with another; and where such differences are not "statistically significant", there is a reasonable likelihood they are due to chance, rather than real differences in disease rates.

Although these observations may be due to chance, they are consistent with the emergency department presentation and hospital admission data for this region presented in the earlier NSW Health report "Respiratory and Cardiovascular Diseases and Cancer among Residents in the Hunter New England Area Health Service" ([http://www.health.nsw.gov.au/pubs/2010/hne\\_respi\\_cardio.html](http://www.health.nsw.gov.au/pubs/2010/hne_respi_cardio.html)) which noted higher rates for asthma and respiratory disease overall.

These data are subject to all of the known limitations of the BEACH program, although the general practices participating and the distribution of encounter data across participating GPs appeared reasonably representative of GPs in the Upper Hunter as a whole. The BEACH data for the Upper Hunter region was weighted for age, sex, Health Care Card status and season of encounter to minimise any bias due to sampling. An expanded series of codes were considered for asthma and COPD.

### **Recommendation**

These BEACH data suggests that conditions presenting to and medications prescribed by GPs in the Upper Hunter region are similar to those in the rest of non-metropolitan NSW. There are indications, though, that asthma may be a more important issue in the Upper Hunter region. This observation is consistent with findings documented in the published health study using other routinely collected data sources. With all findings from this and other studies considered together, further study of the health effects of the mining industry and other exposures in Singleton, Muswellbrook and Denman should focus particularly on asthma and other respiratory disease.