

## Impact of 2014/2015 influenza season in Alentejo Region of Portugal

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### Background

Influenza activity in Europe started week 50/2014 with subtype A(H3N2) viruses as dominant. In Portugal was reported medium intensity of influenza activity in week 1/2015 to European Centre for Disease Prevention and Control, with B as dominant subtype.

The main purpose of study is early estimation of impact 2014/2015 influenza season in excess mortality, consultations in primary healthcare, hospital admissions and emergency episodes in Alentejo.

### Methods

Mortality data were obtained from daily mortality surveillance system (VDM). The number of consultations by flu syndrome (code R80 in International Classification of Primary Care) and vaccines administrated was obtained from SIARS Informatics System. The number of hospital admissions and emergency episodes were obtained from local hospitals registered in ALERT ADW and SONHO informatics systems.

The period studied, observed period (O), was Week 1 to 5 2014/2015 season.

The expected number (E) of deaths was obtained by taking the sum of variables from an equivalent set of reference with same days week, month from season 2013/2014.

Rate ratios (RR),  $RR = O/E$ , comparing observed versus reference period, were calculated for number of total deaths, consultations, hospital admissions and emergency episodes per week, and 95% confidence intervals (CI) used methodology described by Hoshiko et al. (2009).

## Results

During these season was administrated, at least, 80% of total (76.768) influenza vaccines purchased (92% was individuals with 65 or more years).

In week 3/2015 was registered in Alentejo the peak of excess deaths, corresponding 118 deaths with a  $RR=1.61$  (95%CI:1.19-1.40).

During the period of study was estimated an excess of: 2274 consultations by R80 in primary health care, 189 hospital admissions and 766 emergency episodes in priority colors of Manchester Triage System.

Particularly, week 5/2015 registered an  $RR=2.95$  (95%CI:2.65-3.30) in consultations by R80 and week 4/2015 registered a  $RR=1.359$  (95%CI:1.25-1.48) in emergency pediatric episodes.

## Conclusions

These results are considered preliminary, because in Alentejo the peak of influenza activity may not have been reached. Week 5/2015 has showed incidence rate of 255.5/100.000 inhabitants.

The excess mortality can be overestimated, because the VDM have included municipalities in Alentejo that aren't in influence area of Alentejo Regional Administration of Health. Otherwise, consultations by flu in primary health care, can be under estimated, because depends of registries made by general practitioners.

Surveillance in primary and secondary healthcare services should continue, be enhanced or implemented to facilitate early public health risk assessment, prepare health services as well management and treatment severe cases.