

# ***Mortality surveillance Portuguese experience***

Susana Silva

Ana Paula Rodrigues

Baltazar Nunes



# Background

- Automated daily mortality surveillance system (VMD) in Portugal since 2007
  - Daily (all year)
  - Weekly (winter season)
- EuroMOMO participation since 2008
- FluMOMO
  - Weekly operation since 2017

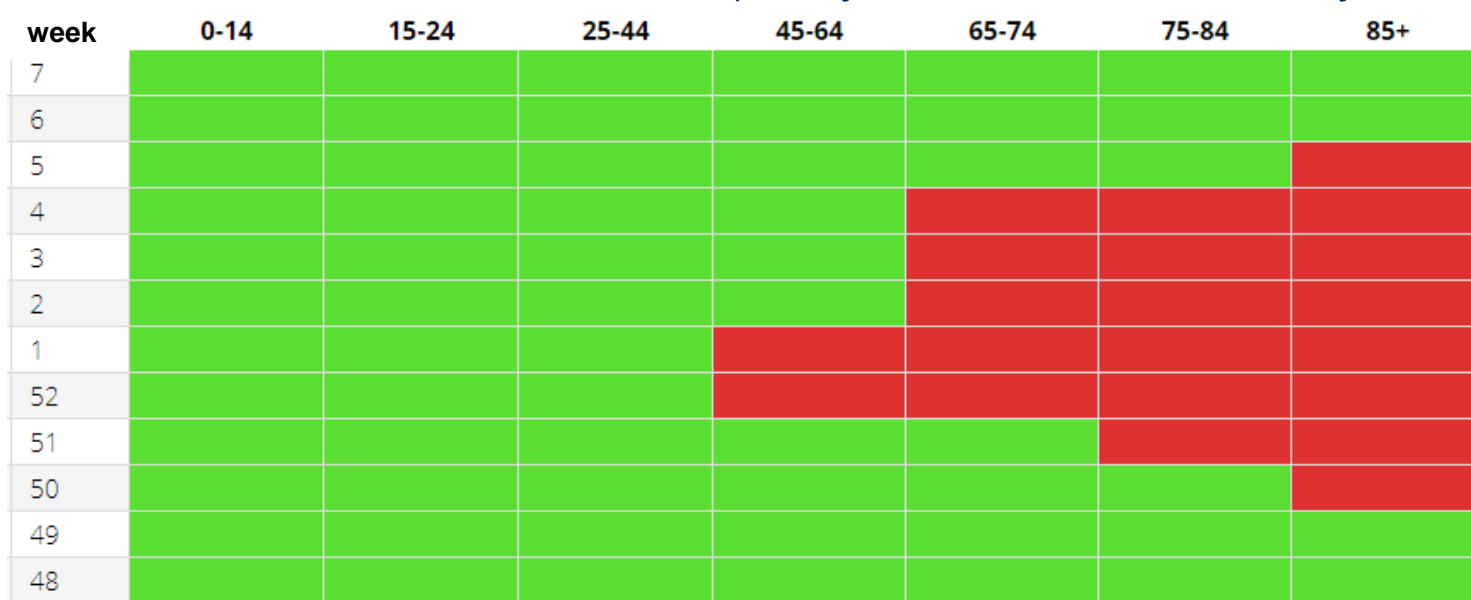
VDM provides information for weekly Portuguese influenza surveillance report

## **Other Surveillance Systems operating closely with mortality monitoring**

- Extreme heat – ICARO (Mainland Portugal)
- Extreme cold – FRIESA (only for two main cities)

# Winter season W40/2016 to W20/2017

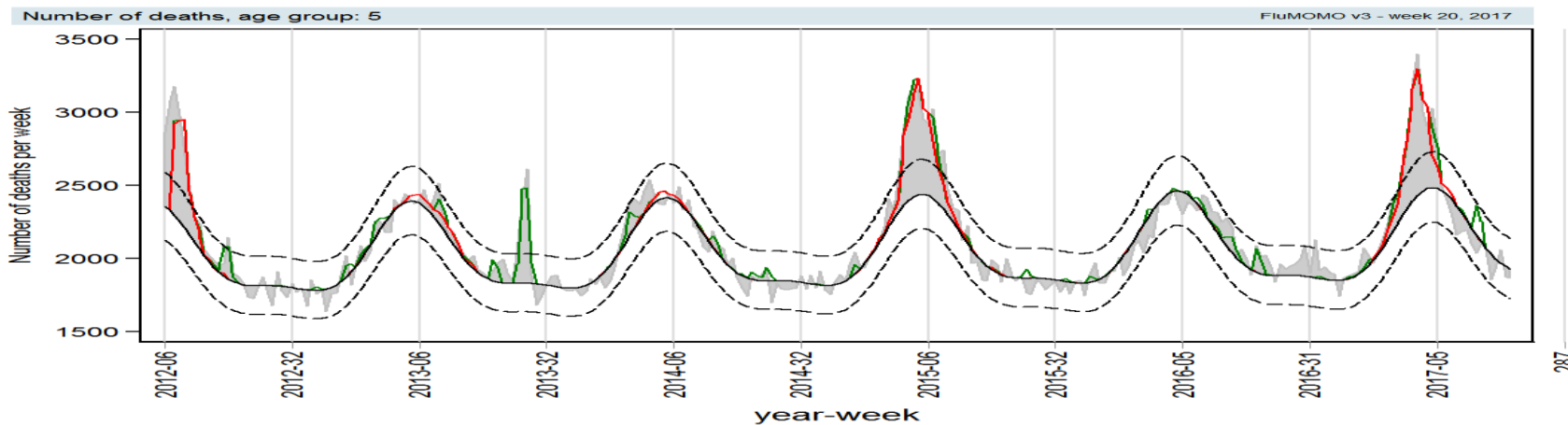
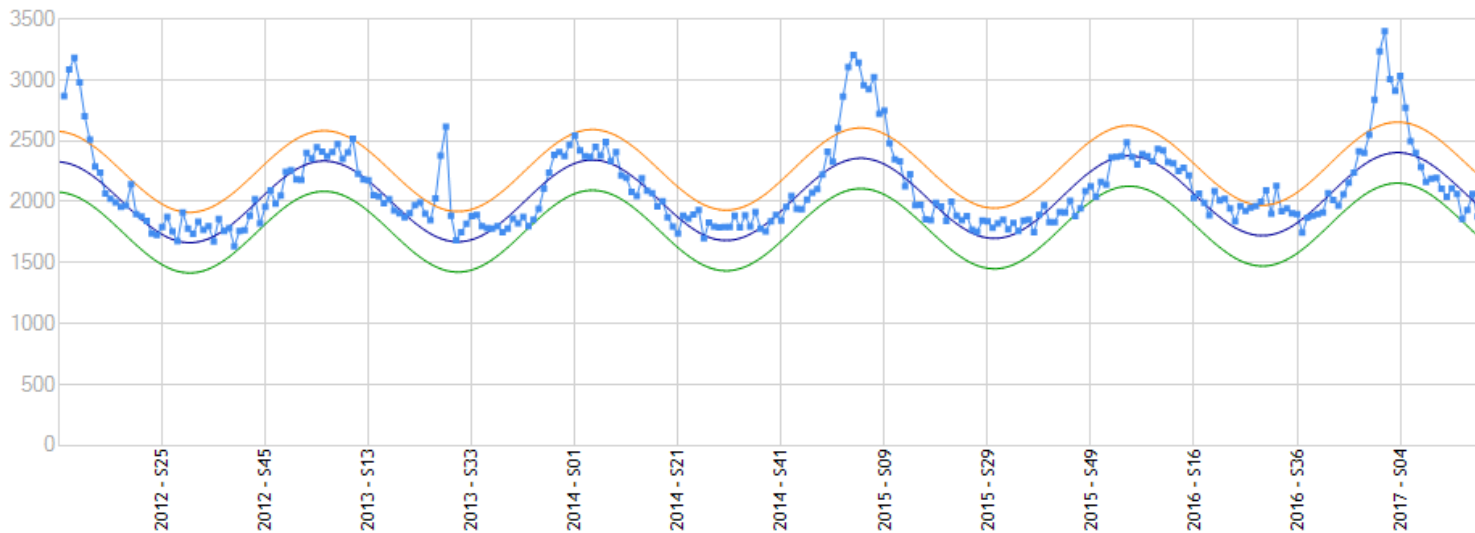
- Excess mortality periods
  - VDM – W51 to W05/2017 (firstly detected on Monday, January 2<sup>nd</sup>)



**Figure 1:** Weekly excess mortality by age group in Portugal (between W48/2016 and W07/2017)

- EuroMOMO – W52 to W06/2017 (firstly detected on EuroMOMO bulletin, January 5<sup>th</sup>)

Número de óbitos registados por data de óbito por semana  
 Todas as conservatórias do registo civil informatizadas (SIRIC/IRN e IGFEJ/MJ)



**Figure 2:** Weekly mortality time series for all ages in Portugal (between W06/2012 and W20/2017)

# Winter season W40/2016 to W20/2017

Table 1: Winter excess estimates (VDM and FluMOMO) in Portugal 2016/17

	Total winter excess (VDM model)*	Factor associated excess (FluMOMO model)	
		Flu associated	Cold associated
	W51/2016 to W05/2017	W52/2016 to W06/2017	
<b>Global</b>	4.467 (3.846;5.087)	4.525 (4.264;4.791)	910 (759;1.070)

\*Cyclical regression without covariates

# Sugestions

- Weekly run of FluMOMO model since season beginning