Influenza burden estimates in Portugal: seasons 2013/14 to 2018/19

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Summary

Influenza burden in Portugal

1. Background
2. Objectives
3. Methods
4. Results
5. Limitations
6. Conclusions

Background

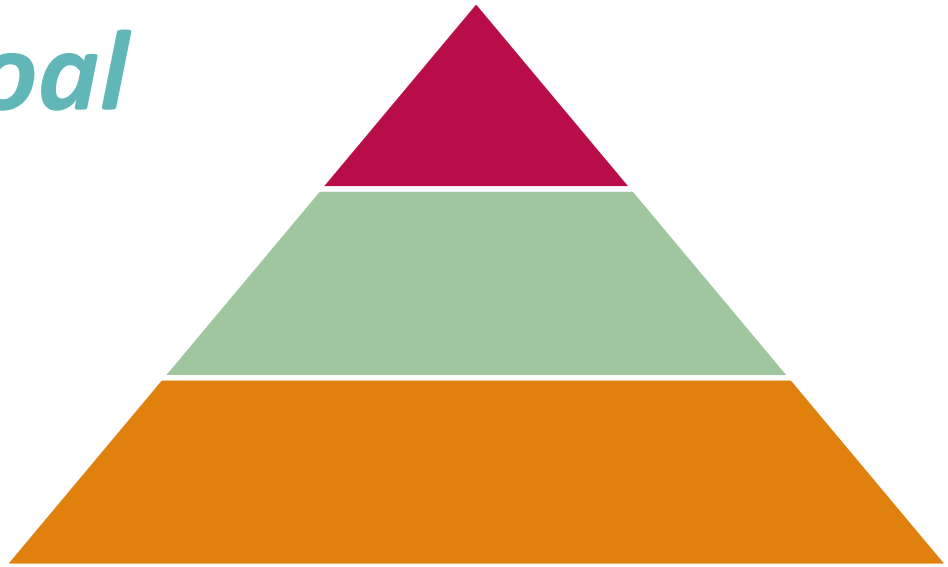
Why do we need to estimate the burden of influenza?

- Decision-making
- Resource allocation
- Risk communication
- Epidemics' impact
- Baseline data

Objectives

Estimate seasonal influenza burden in Portugal from 2013/14 to 2018/19 using registry and surveillance data.

Goal



Methods

Time span

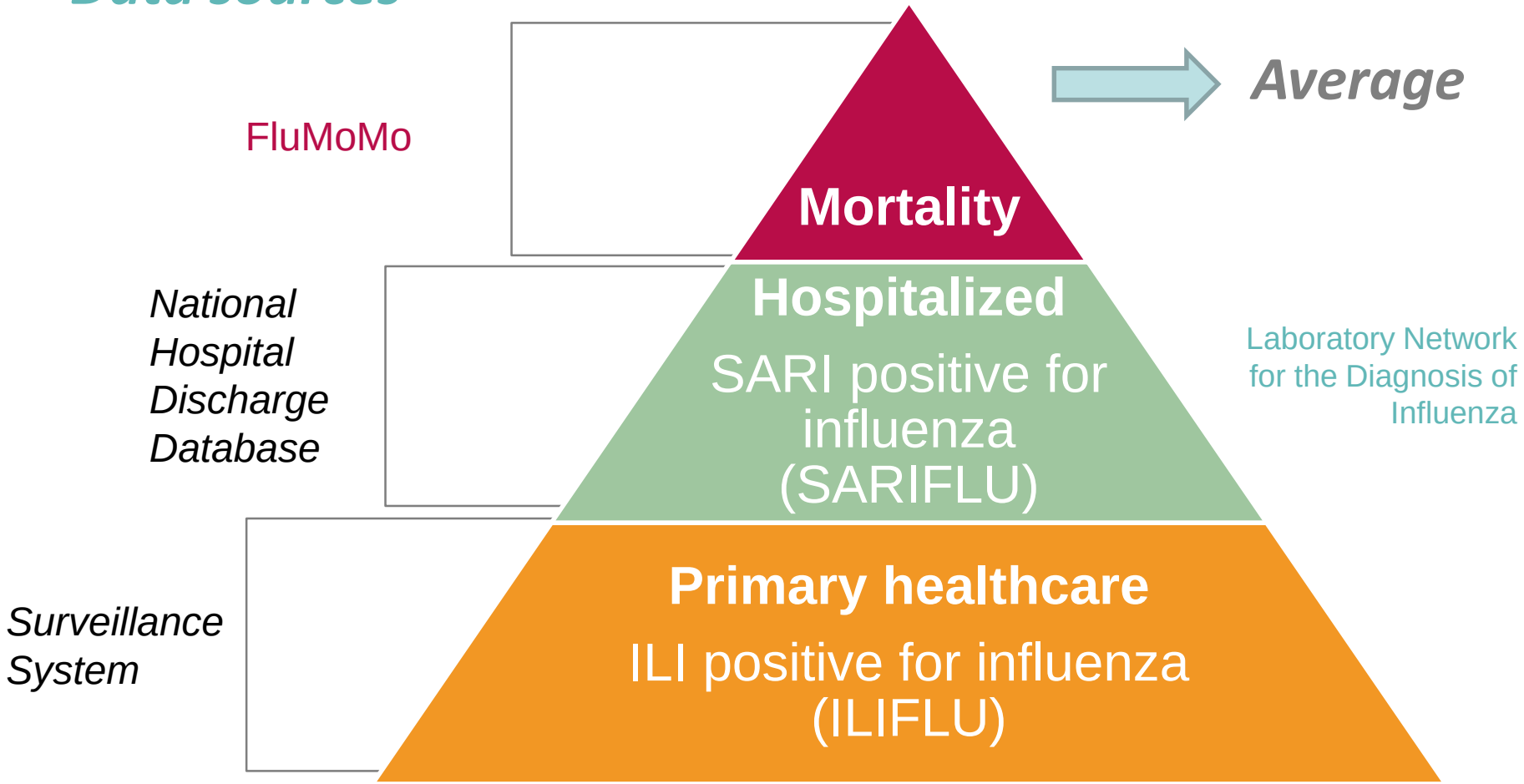
- *Seasons 2013/14 to 2018/19*
- *October (week 40th) to May (week 20th)*
- ***Epidemic periods** only*

Epidemic periods versus Entire season:

dominance of other respiratory virus outside epidemic periods → Influenza burden overestimation

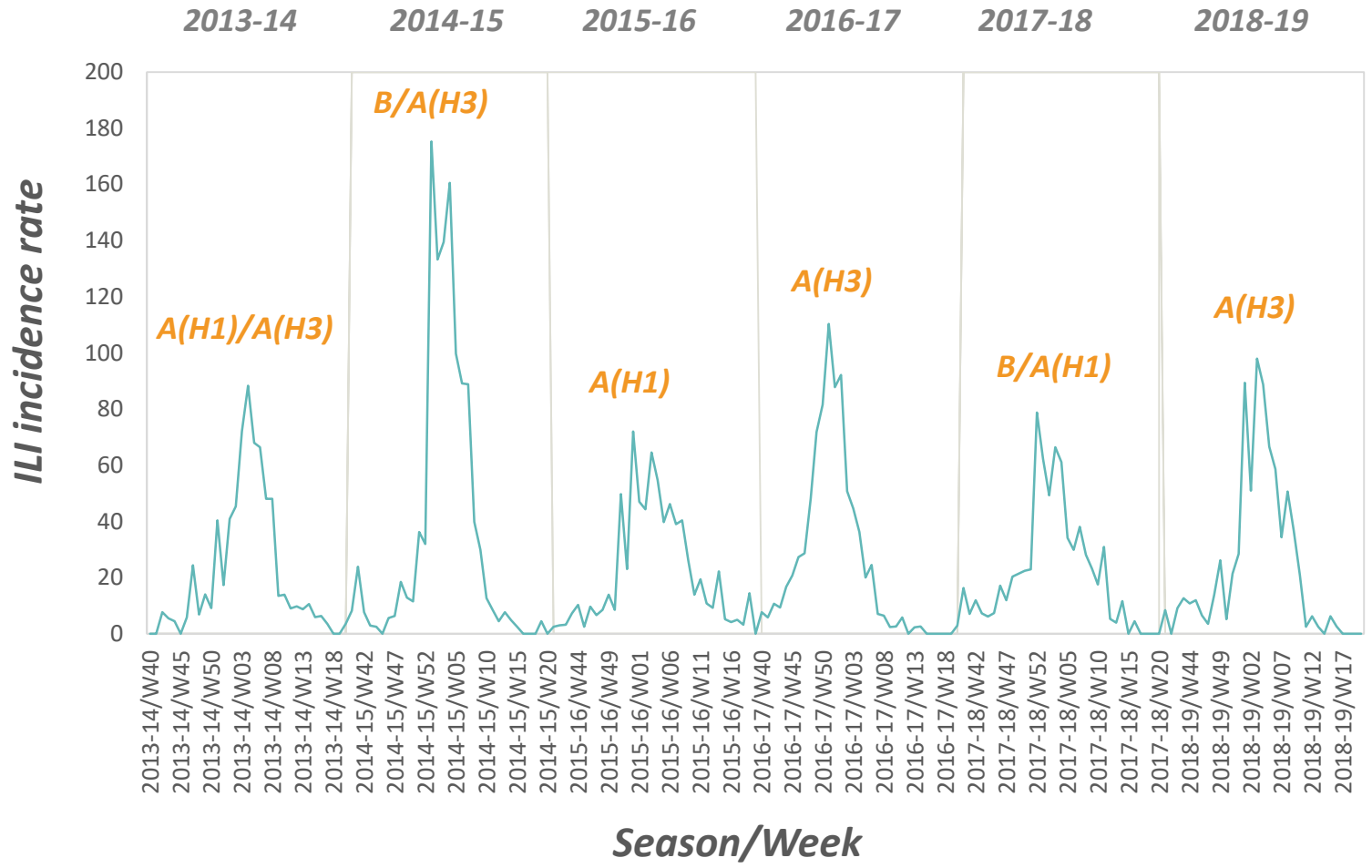
Methods

Data sources



Results

Intensity



Results

Lower burden: A(H1)

	2013-14		2014-15		2015-16		2016-17		2017-18		2018-19	
Viral distribution	**A(H3)**	38,8	**A(H3)**	29,8	**A(H3)**	1,3	**A(H3)**	99,6	**A(H3)**	13,7	**A(H3)**	65,2
	A(H1)	59,7	**A(H1)**	4,2	**A(H1)**	90,4	**A(H1)**	0,2	**A(H1)**	19,5	**A(H1)**	33,9
	B	1,3	**B**	66,0	**B**	8,3	**B**	0,2	**B**	66,7	**B**	0,9
No. of epidemic weeks	10		10		11		9		8		9	
Influenza Mortality	542		5224		96		4809		3576		3046	
Hospitalizations	7099		9125		9119		8329		n.d.		n.d.	
ILI attended in primary healthcare	36042		61768		24413		35251		21393		32085	
ILI in community	147712		253148		100054		144471		87676		131494	

Higher burden: A(H3)

Results:

Influenza burden pyramid

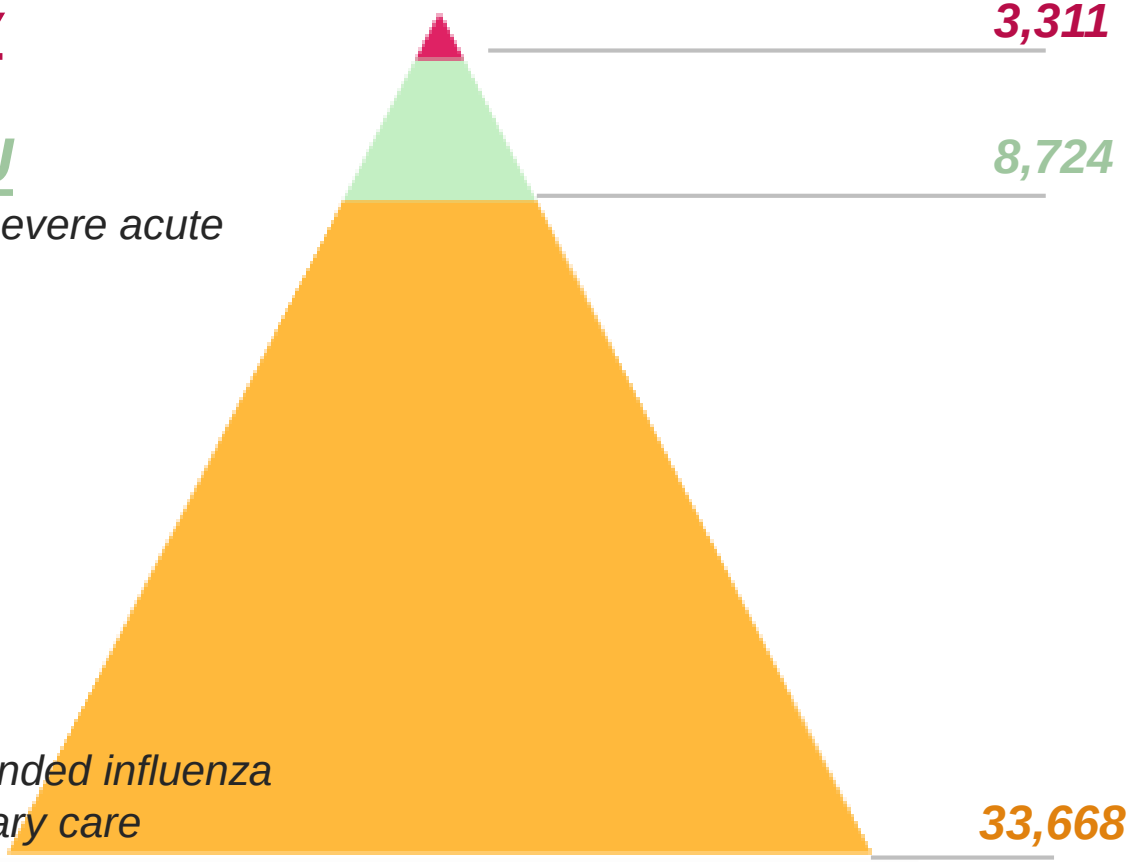
Mortality

SARIFLU

Hospitalized severe acute infections

ILIFLU

Medically attended influenza cases in primary care



Results

Mortality

SARIFLU

Hospitalized severe acute infections

ILIFLU

Medically attended influenza cases in primary care

No. of medical students in Lisbon University

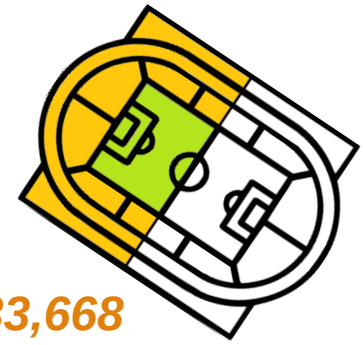
3,311

No. of workers in PT of the largest hydroelectric

8,724

Half of the capacity of the largest stadium in Portugal

33,668



Limitations

Underestimated ILIFLU

Direct comparisons

Case definitions

Data sources

SARI delay

Conclusions

- Lower burden of influenza: seasons with A(H1) virus circulation dominance

- Higher burden: seasons with influenza A(H3) virus co-dominance