

# CIC 2014 CCI

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## Canadian Immunization Conference Conférence canadienne sur l'immunisation

### Influenza Vaccination in Chronically Ill Children

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*Institut national  
de santé publique*

Québec





## Disclosure Statement

I have no affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.

# Background

- In children with underlying chronic conditions yearly Influenza vaccination is strongly recommended
- However, vaccine uptake is sub-optimal
- Strategies to improve vaccination coverage and to facilitate vaccine uptake in at-risk groups are needed

NACI recommendations 2014-2015;  
Coffin, Zaoutis et al. Pediatrics, 2007  
Rodriguez-Rieiro et al., Vaccine. 2010;  
Esposito et al. Vaccine. 2006

# Background

- Since 2012, the province of Quebec has recommended live-attenuated influenza vaccine (LAIV) as the preferred vaccine for children with non-immunocompromising conditions
- For the 2012-2013 and 2013-2014 influenza season, an influenza vaccination clinic was set up within pediatric tertiary care hospital

# Objectives

- To evaluate the implementation of an influenza vaccination clinic in a pediatric tertiary care hospital
- Compare results from 2013 and 2012
- To assess differences in preference between nasal live attenuated influenza vaccine and injectable vaccine by the primary caregivers

# Target group

- Chronically ill children (6 mo-18 yo)\*

\* defined by Protocole d'immunisation du Quebec

- Followed at the Montreal Children's Hospital
- Their household members
- Who are visiting a pediatric health care center for a tertiary-care appointment
- During influenza vaccination period

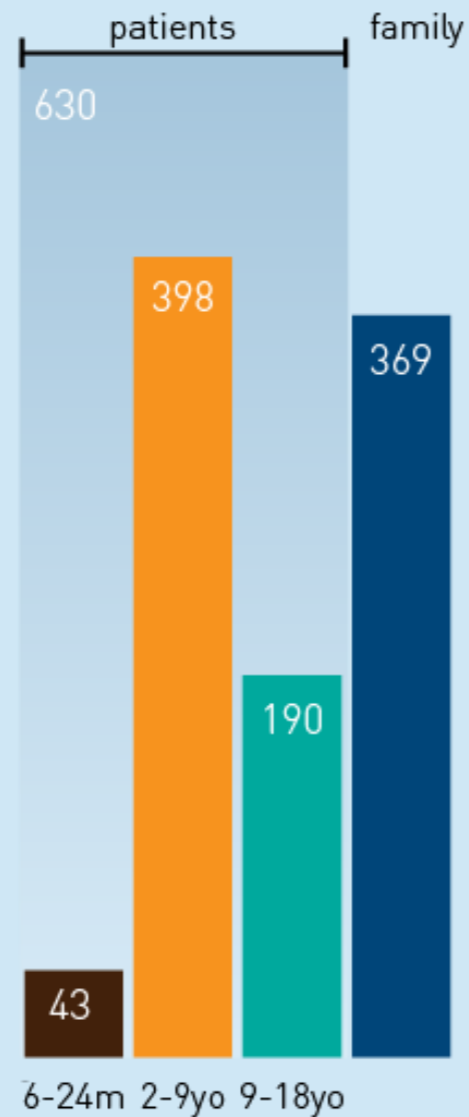
# Methods/Activities

- Vaccination clinic:
  - located in hospital
  - staffed with a nurse with expertise in vaccination
  - opened from 8:30-16:30 (weekdays) from Oct.15 – Dec.24 2012 and 2013 (9 weeks period)
- Both trivalent inactivated vaccine (TIV) and LAIV were offered without charge
- Pre-piloted questionnaire
- Analysis  
Excel, STATA; descriptive statistic analysis

# Results

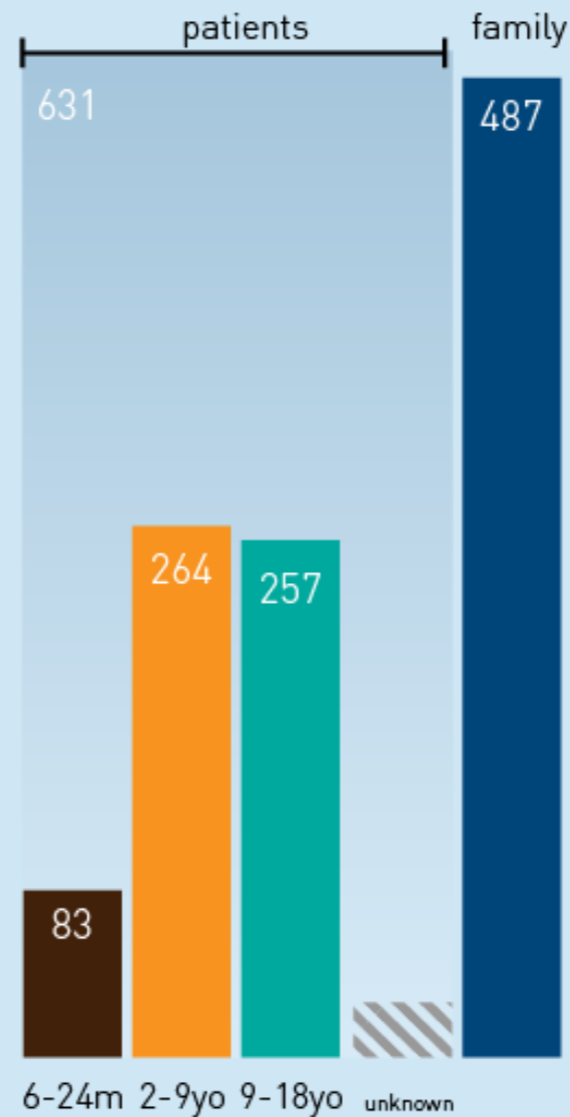
## Vaccinated patients and household members

2012



total: 999

2013

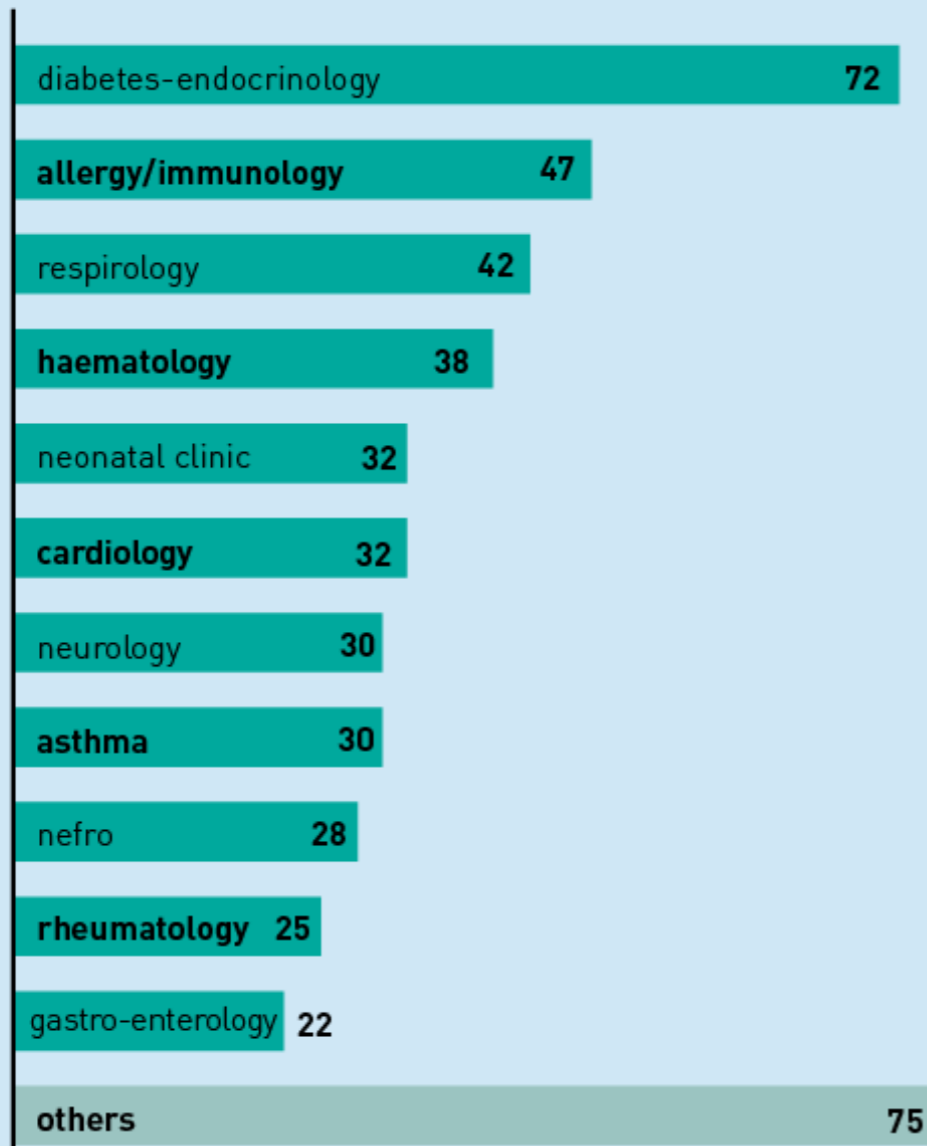


total: 1117

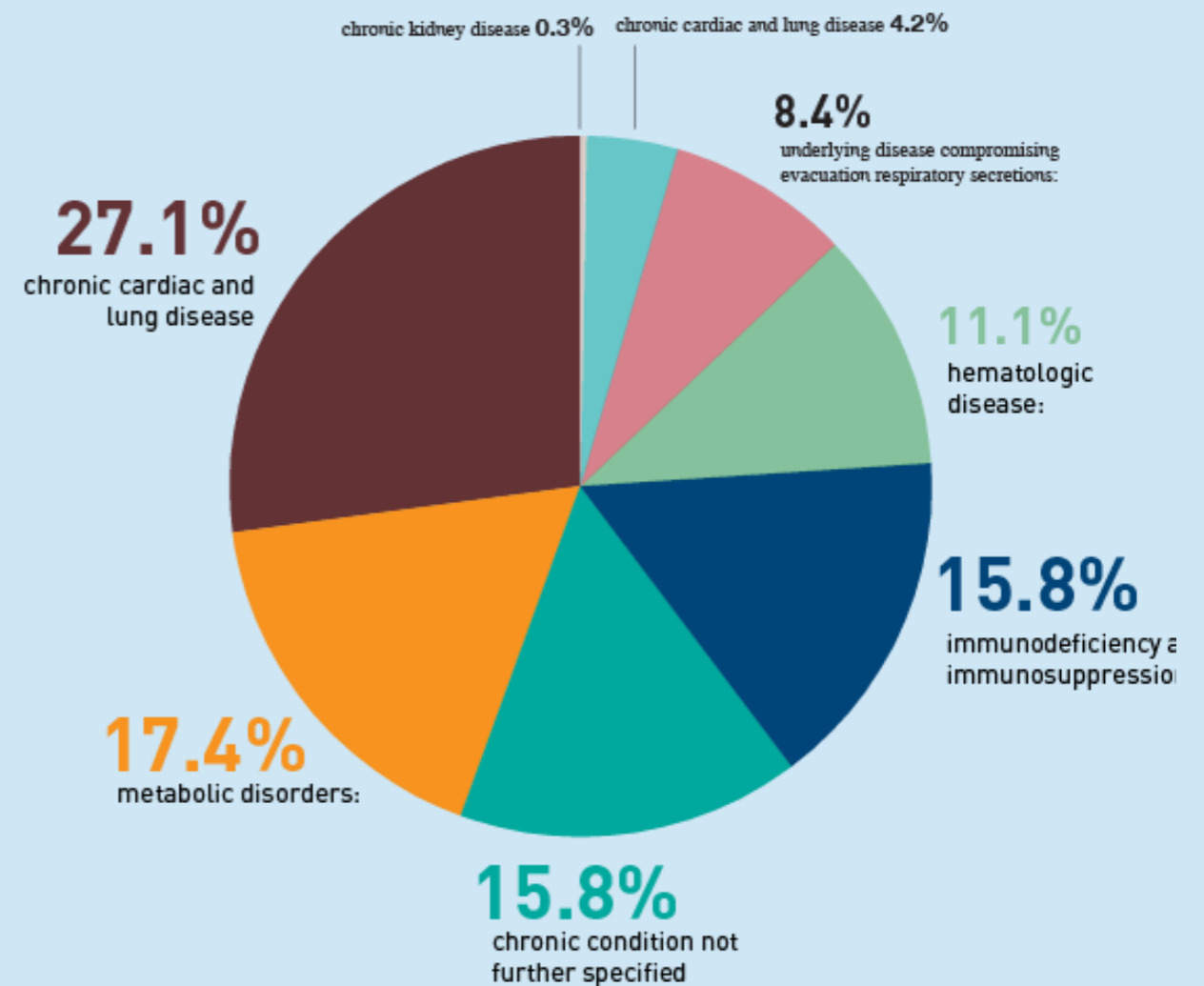


# Results

## Referring clinic and underlying pathology (2013)



referred clinic



underlying pathology

# Results

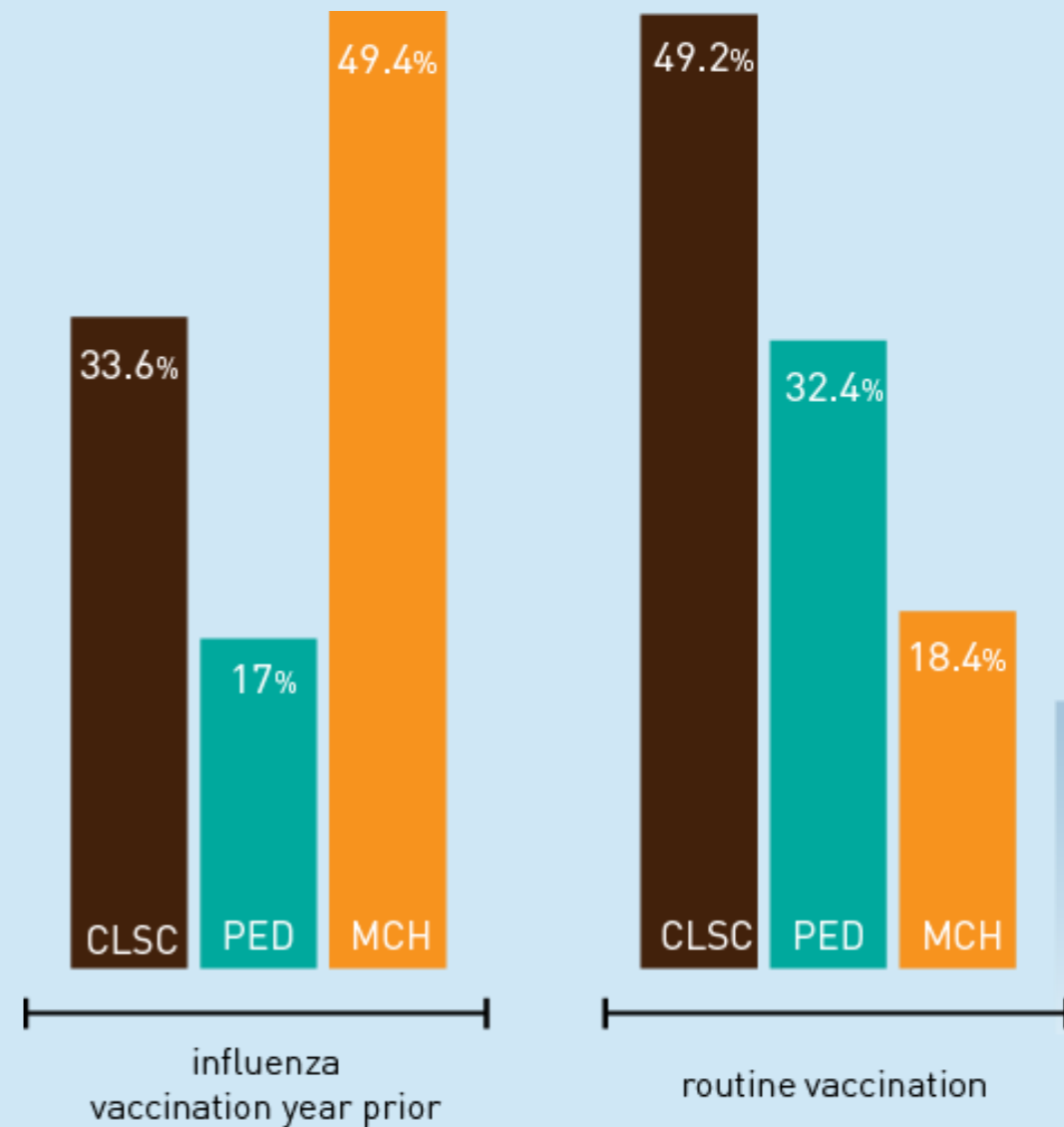
## Influenza vaccination history (2013)

Vaccinated in previous year:

**61%** 378/623

Vaccinated 2 years ago:

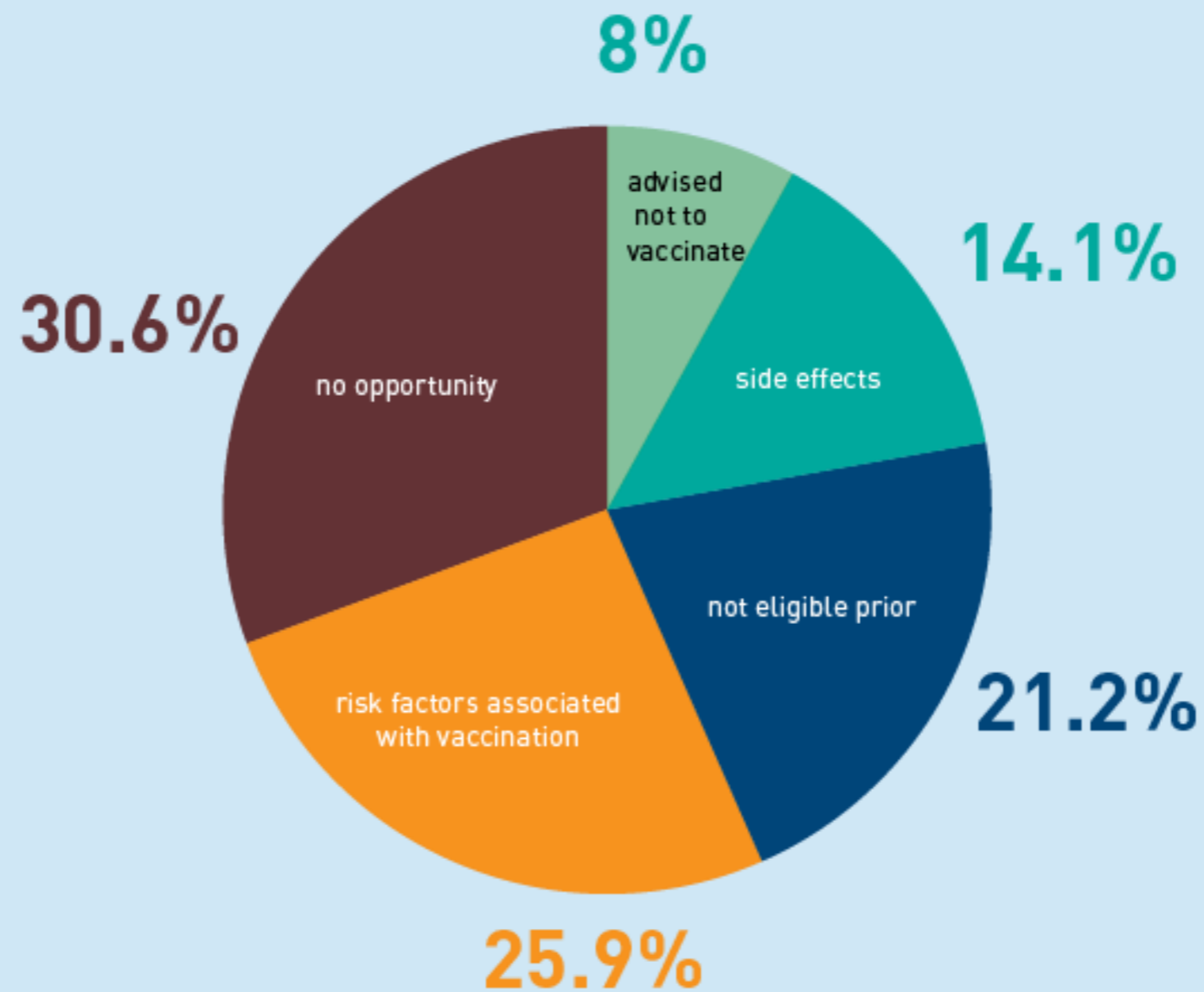
**58%** 355/610



Usual vaccine provider

# Results

## Influenza vaccination history (2013)

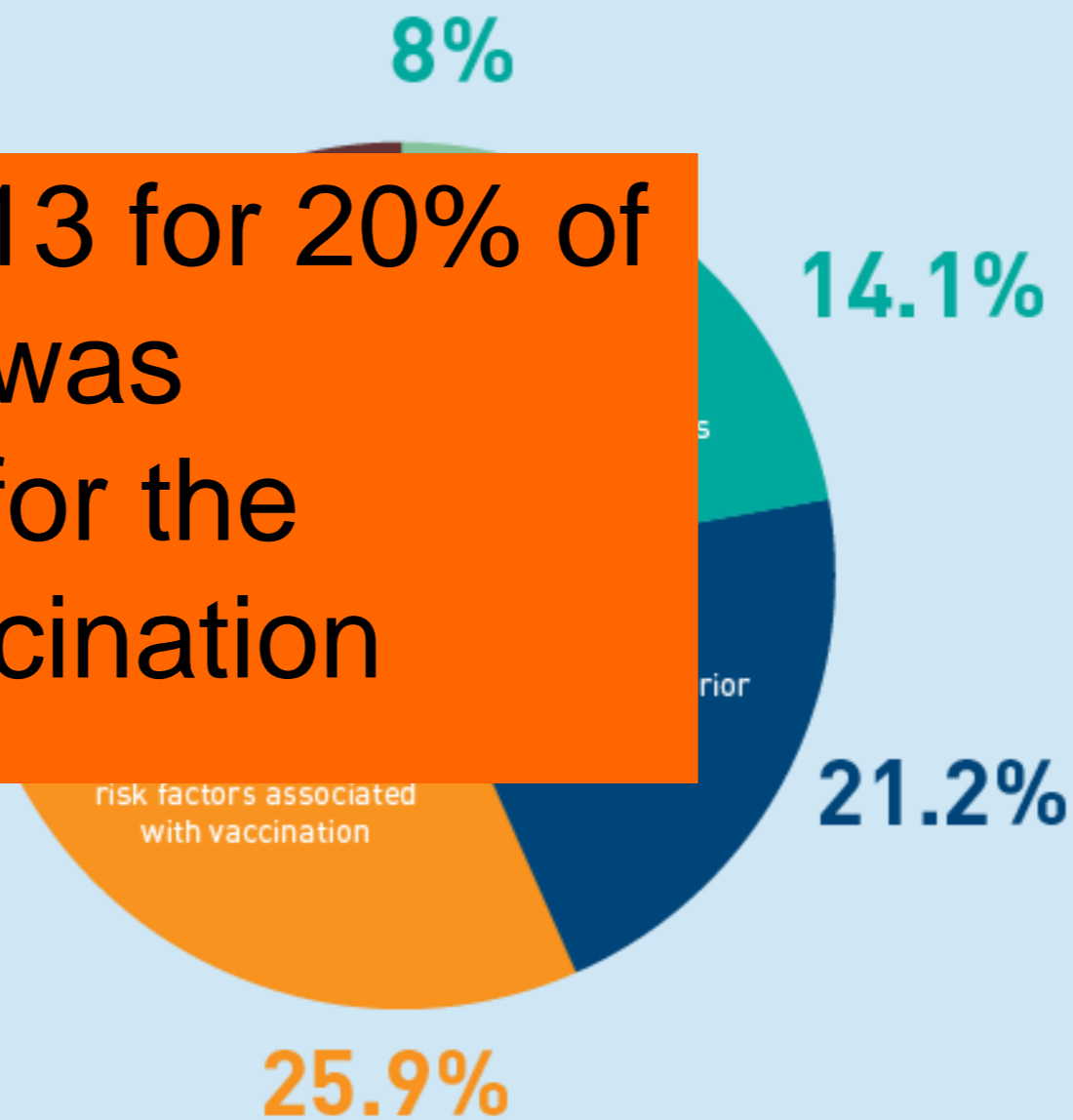


Reason for lack of influenza vaccination

# Results

## Influenza vaccination history (2013)

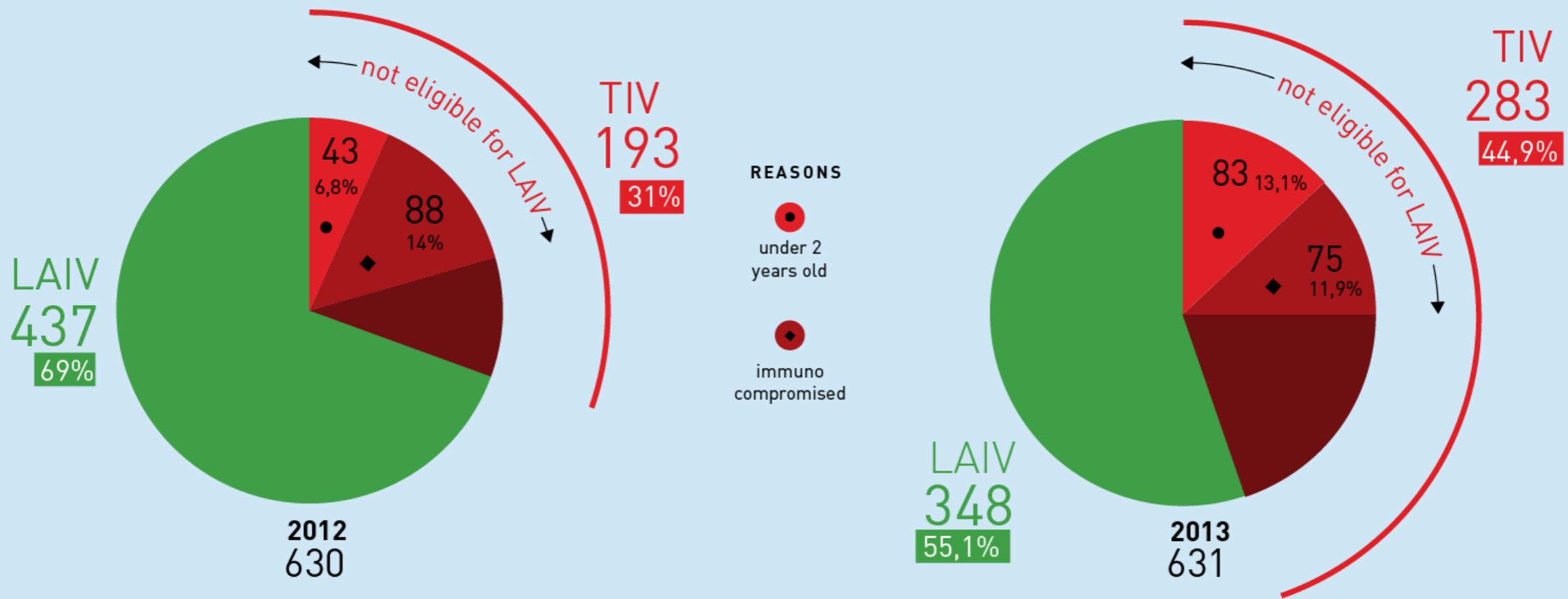
In 2012 & 2013 for 20% of pts the clinic was instrumental for the influenza vaccination



Reason for lack of influenza vaccination

# Results

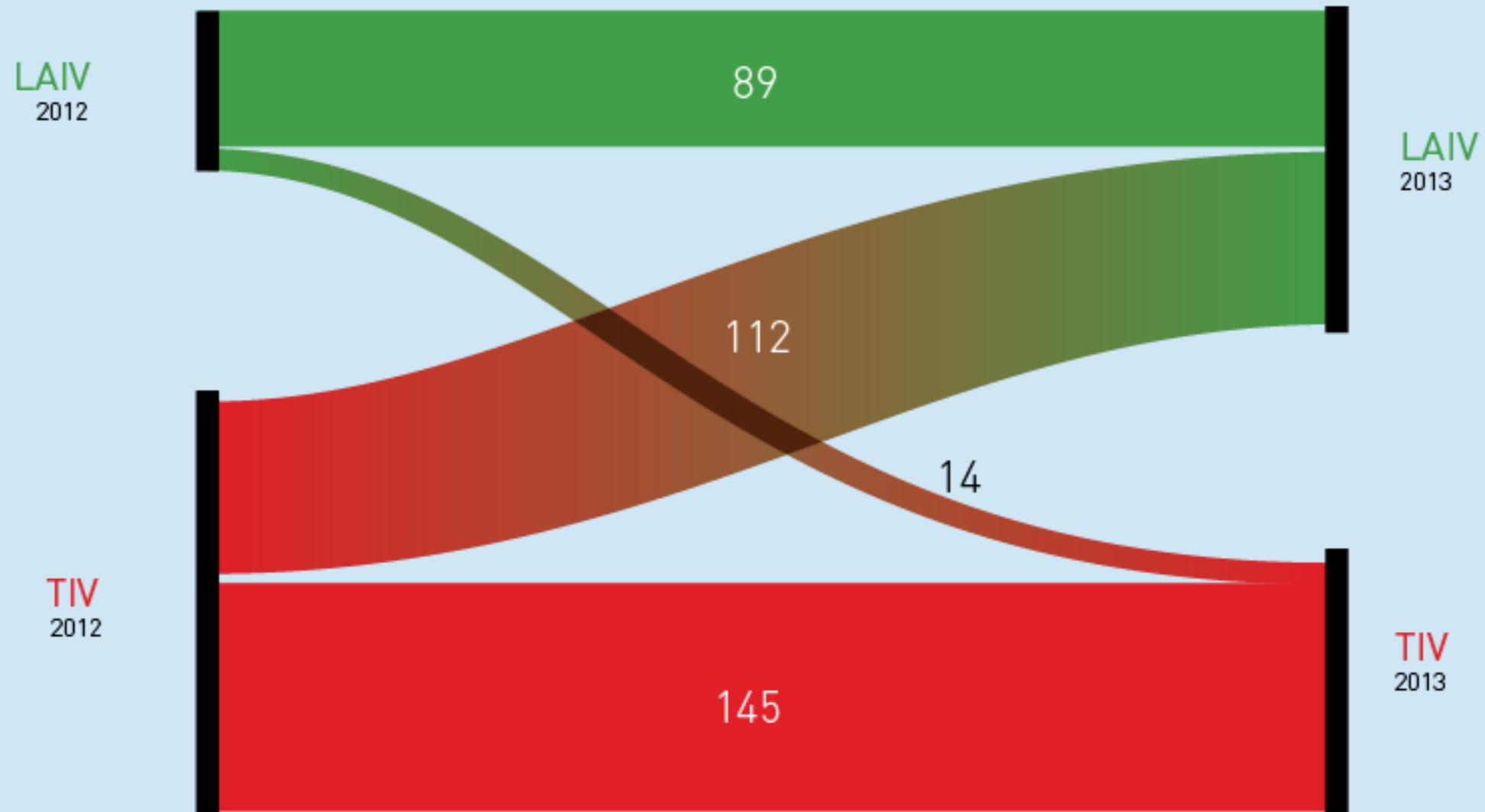
## LAIV vs. TIV



— Provided Vaccine Type in Patients

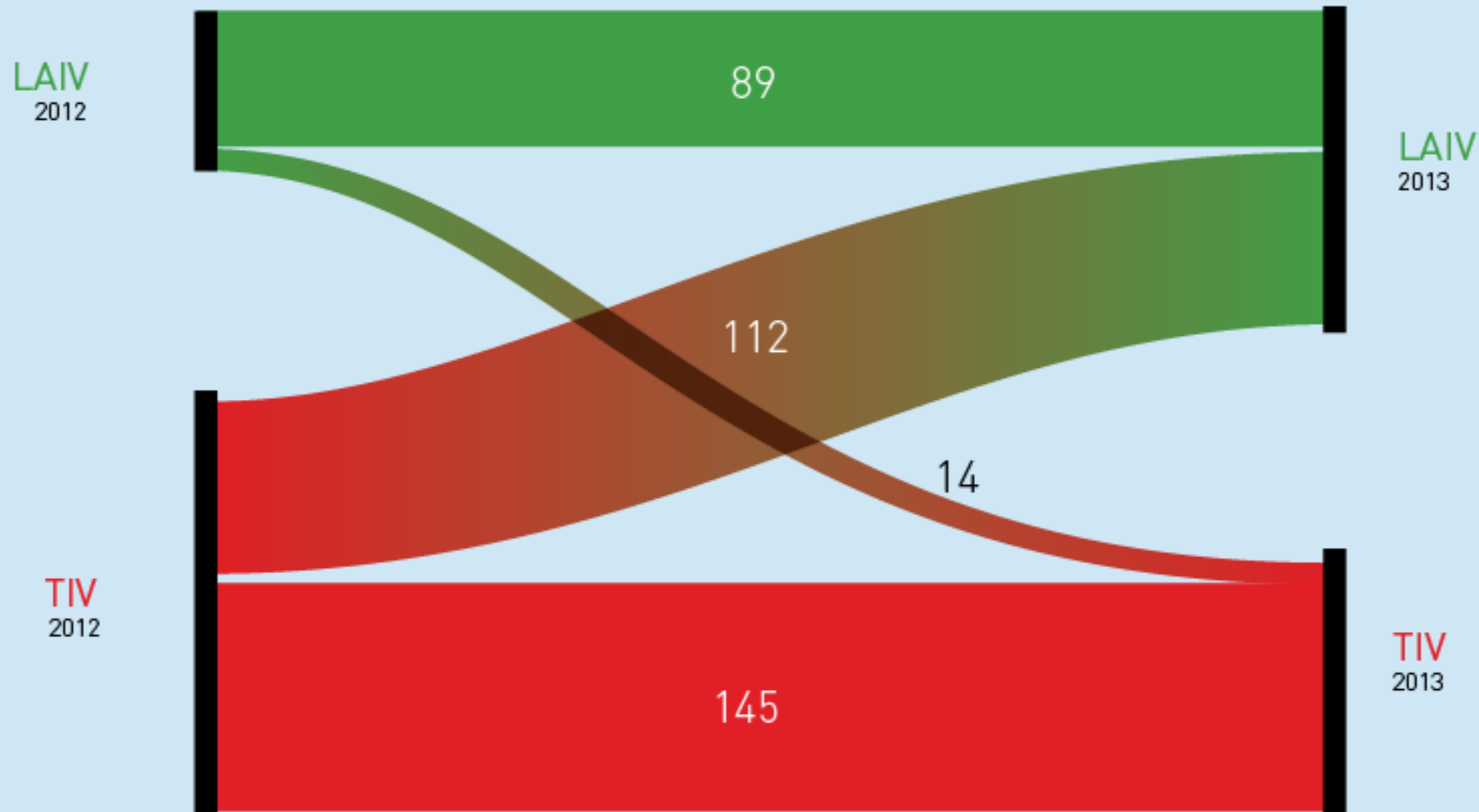
# Results

## LAIV vs. TIV



— flow chart —

- 88% of LAIV eligible patients chose LAIV again this year.
- 21% of 112 patients who received TIV last year were not eligible to receive LAIV in 2012, but became eligible in 2013.

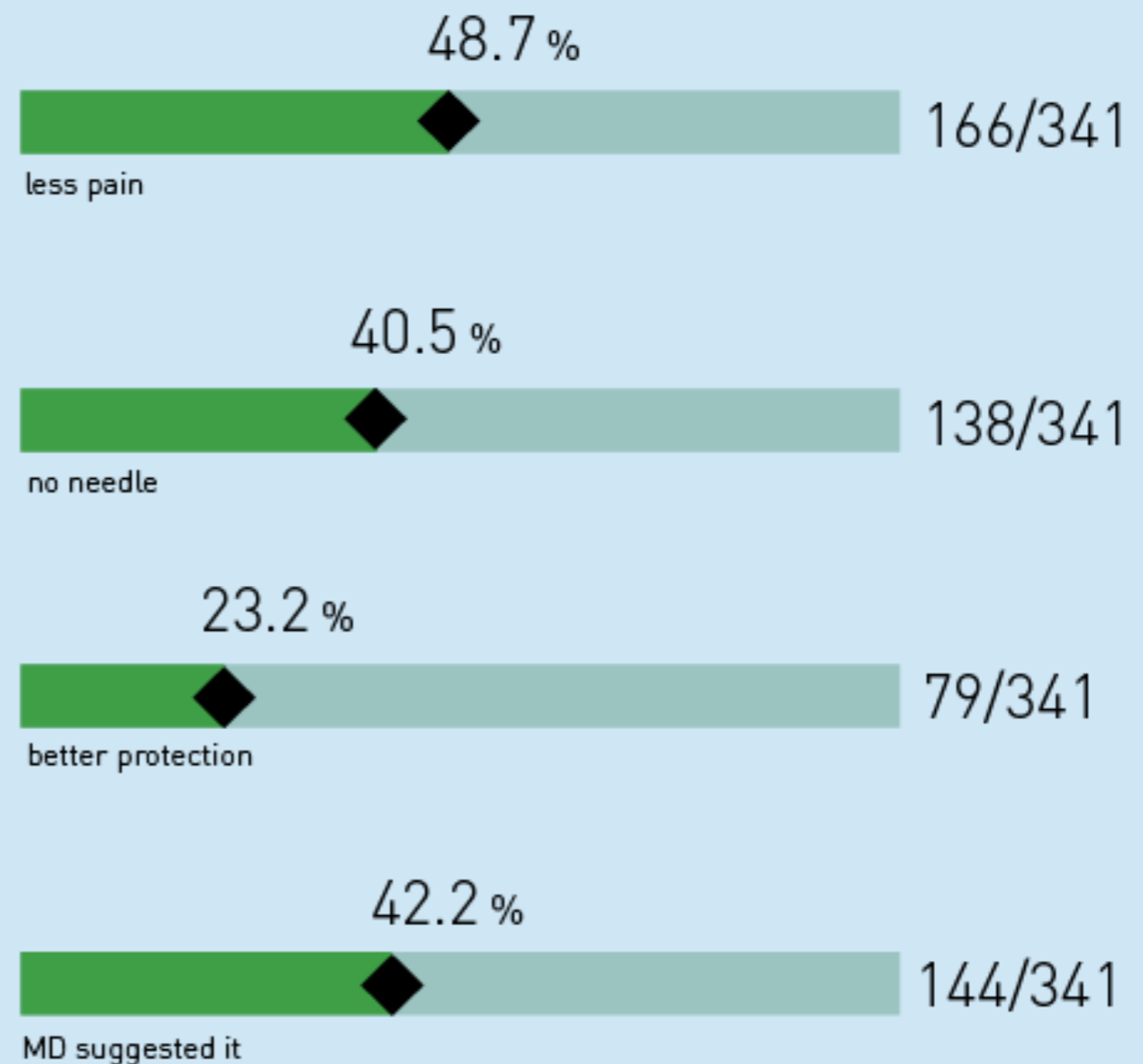


— flow chart —

# Results

## LAIIV vs. TIV

Caregiver's preference  
and reason behind  
preference for LAIV





# Limitations

- Questionnaire is open to subjective impressions
- First year of questionnaire provided more limited data, effect on comparison
- No objective evaluation of clinic's appreciation by services in hospital. However, nurses and physicians in charge of specialty clinic have been appreciative (subjectively) of service offered – pressure put to keep clinic yearly

# Conclusion

- Yearly influenza vaccination coverage in children with chronic illnesses can be improved with a vaccination clinic located where children receive their routine sub-specialty care
- As a tertiary centre, we remain instrumental for the yearly influenza vaccination
- LAIV is preferred vaccine and is re-chosen
- From October to December 2014 the vaccination clinic has re-opened at the MCH hospital, but was not funded by the Quebec Ministry of Health

# References

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