



Seasonal childhood influenza vaccinations Experiences from Finland

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Disclosures

HN

- Public health official and private practitioner (travel health)
- Scientific coordination of ARIVAC consortium on phase III with PCV10; sanofi pasteur as one of members until 2010
- No personal payments from industry since 2011

THL

- Collaborates in public-private partnerships with vaccine manufacturers to enhance public health

Contents

- Landscape of influenza vaccinations in Finland
- Preparations for LAIV introduction
- Coverage
- Effectiveness
- Afterthoughts
- Future

Timeline of influenza vaccine recommendations in the Finnish national immunization programme

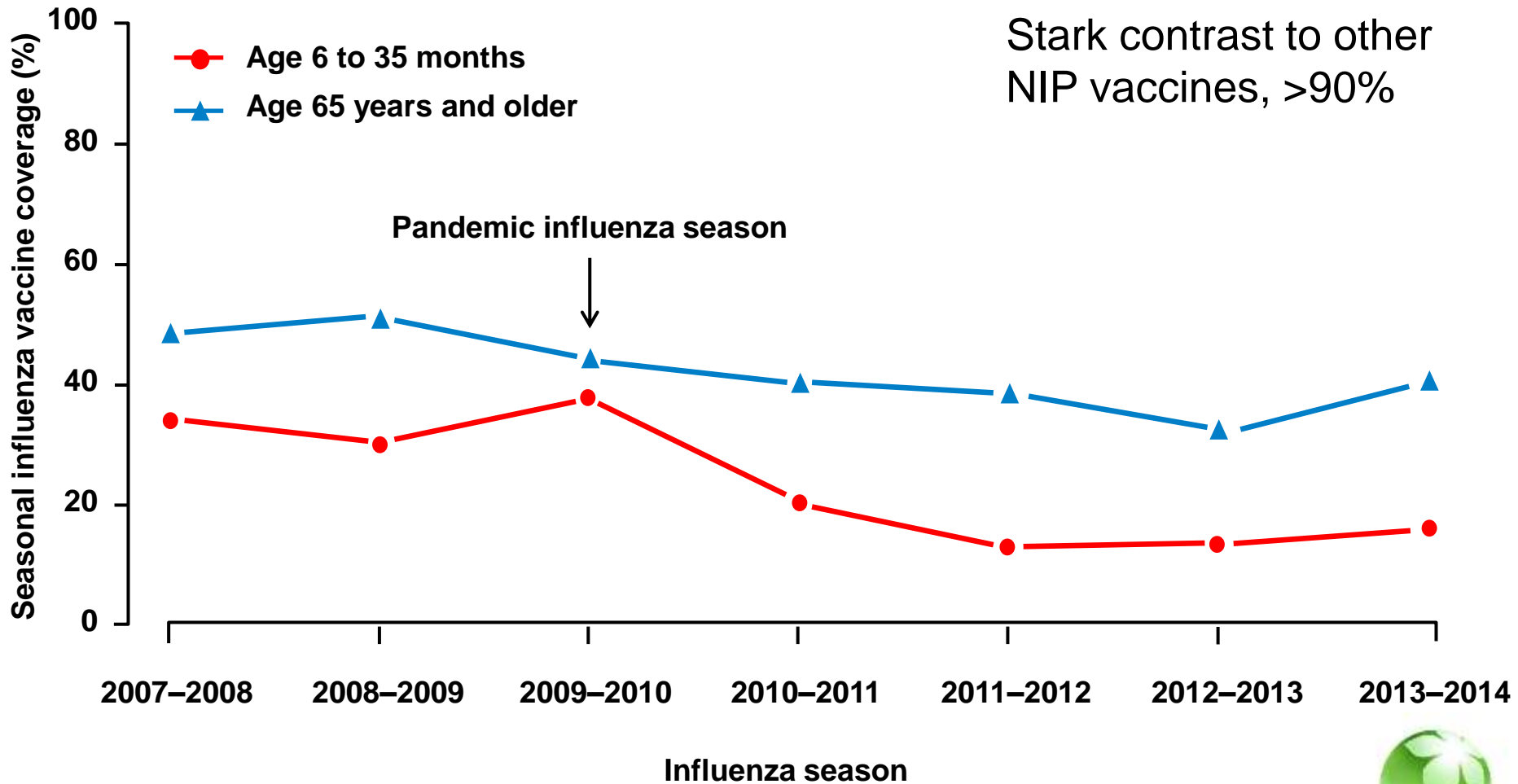
since 1980

Year	Vaccine	Target group	Main reason for recommendation
1980	SIV	Medical risk groups	Burden of Disease (BoD)
2002	SIV	≥ 65 year old	BoD
2007	SIV	Children 6 – 35 mo	Cost saving when given to children ≤13 yrs (Salo et al 2006)
2009	AH1N1 + AS03	Everyone according to prioritization order	Pandemic threat, expected BoD Obs! not part of NIP
2010	SIV	Pregnant women HCW taking care of at risk patients	BoD Indirect protection (IP)
2011	SIV	All HCW and social workers	BoD IP
2012	SIV	Close contacts of medical risk groups Army conscripts	BoD IP
2014	SIV	Pharmacy workers in direct customer contact	BoD IP

STOP influenza get vaccinated !



Seasonal trivalent influenza vaccine (TIV) coverage in Finland



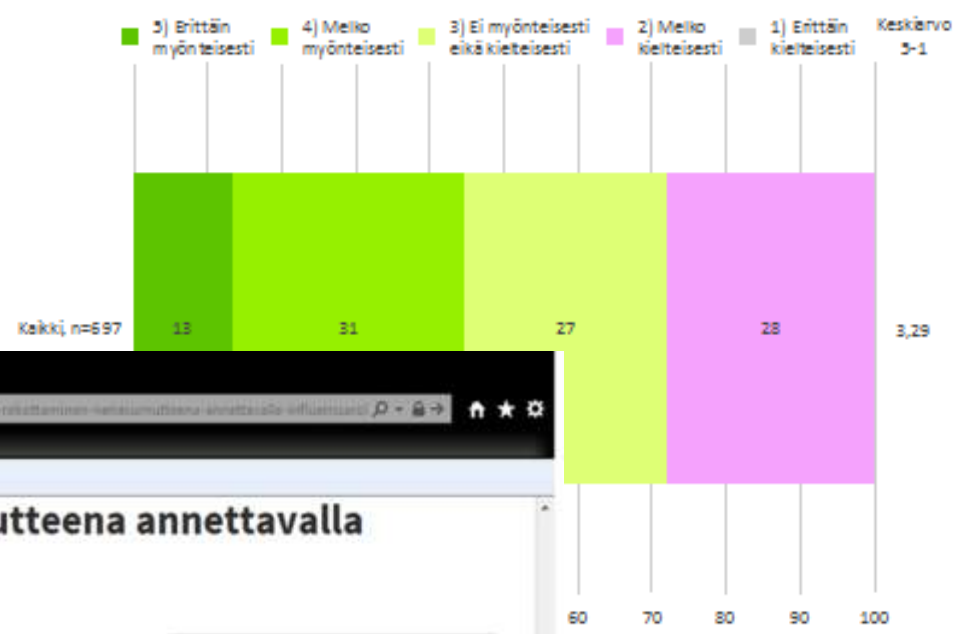
Who should be given SIV in NIP ?

Seasonal influenza vaccine is to be given free of charge to those, whose health could be threatened by influenza or who might markedly benefit from the vaccine.

- Social and health care workers, professionals in pharmacies working in patient / customer contact
- Pregnant women
- All ≥ 65 years of age
- All 6-35 mo old children
- Medical risk groups (illness / treatment)
- Close contacts of those susceptible to serious influenza
- Army conscripts in compulsory service and women in voluntary service

LAIV intro activities

Miten suhtautuu kausi-influenssarokotteen antamiseen lapselle



MUULLA PALVELUSSA
Nenäsumutteena annettava
Positive

Negative

Lapsen rokottaminen nenäsumutteena annettavalla influenssarokotteella

Tällä sivulla esitellään videolla, miten annat eläviä helkennettyjä influenssaviruksia sisältävän Fluenz Tetra-rokotteen nenäsumutteena lapselle.

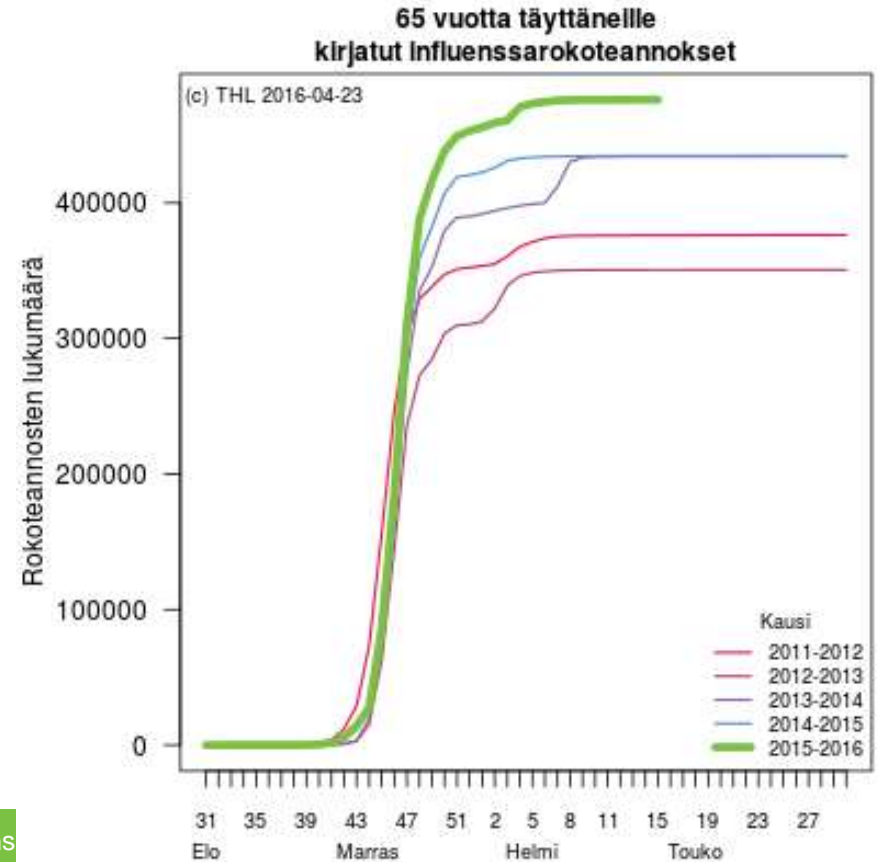
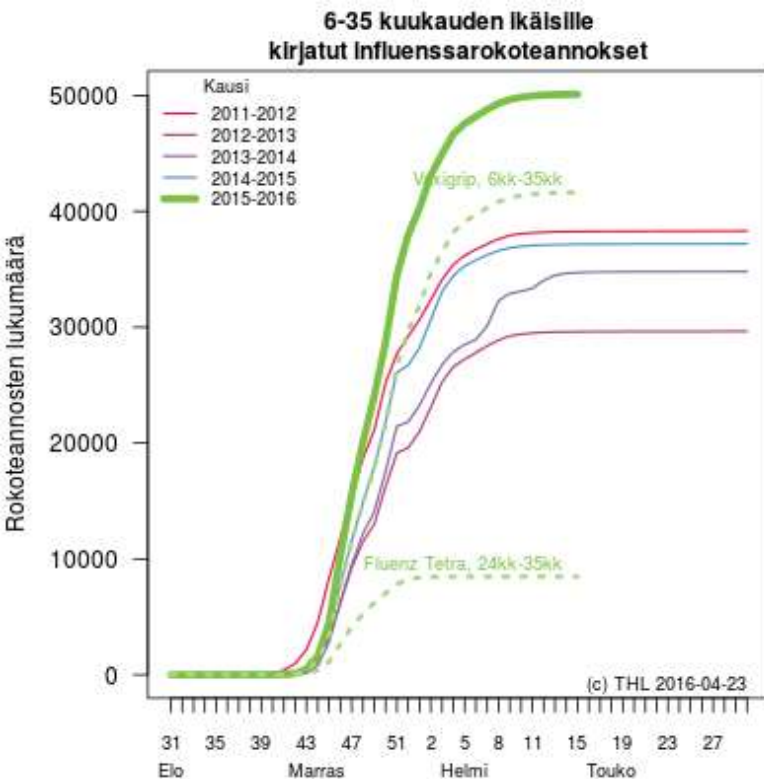
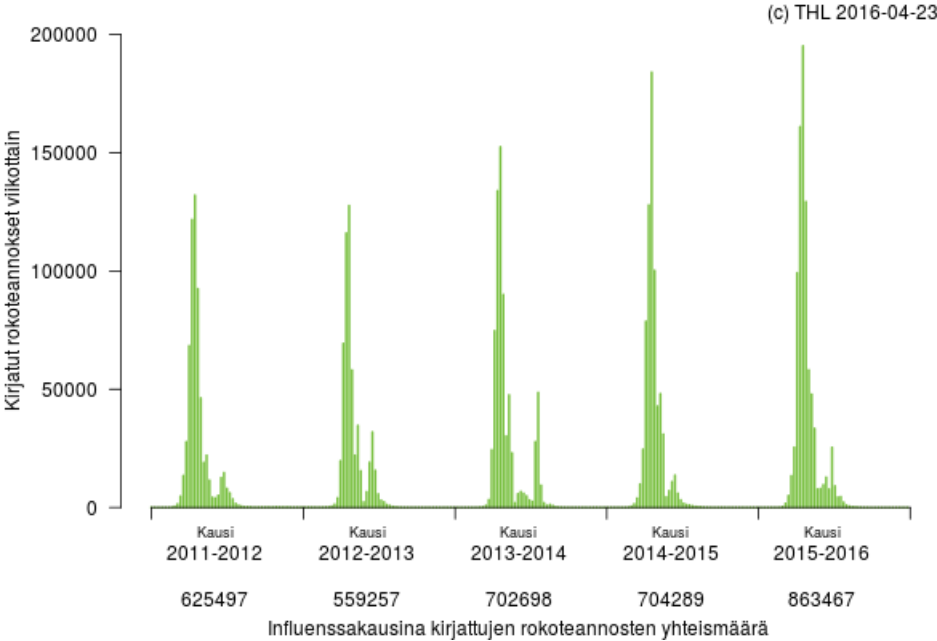
Lapsen rokottaminen nenäsumutteena annettavalla influenssarokotteella

1:32 / 1:57

Doses given in public sector 23.4.2016

1,3 mi TIV and 22 500 LAIV doses delivered
863 467 doses given (66 %)

Hunting for the "lost" doses !



SIV coverage in children

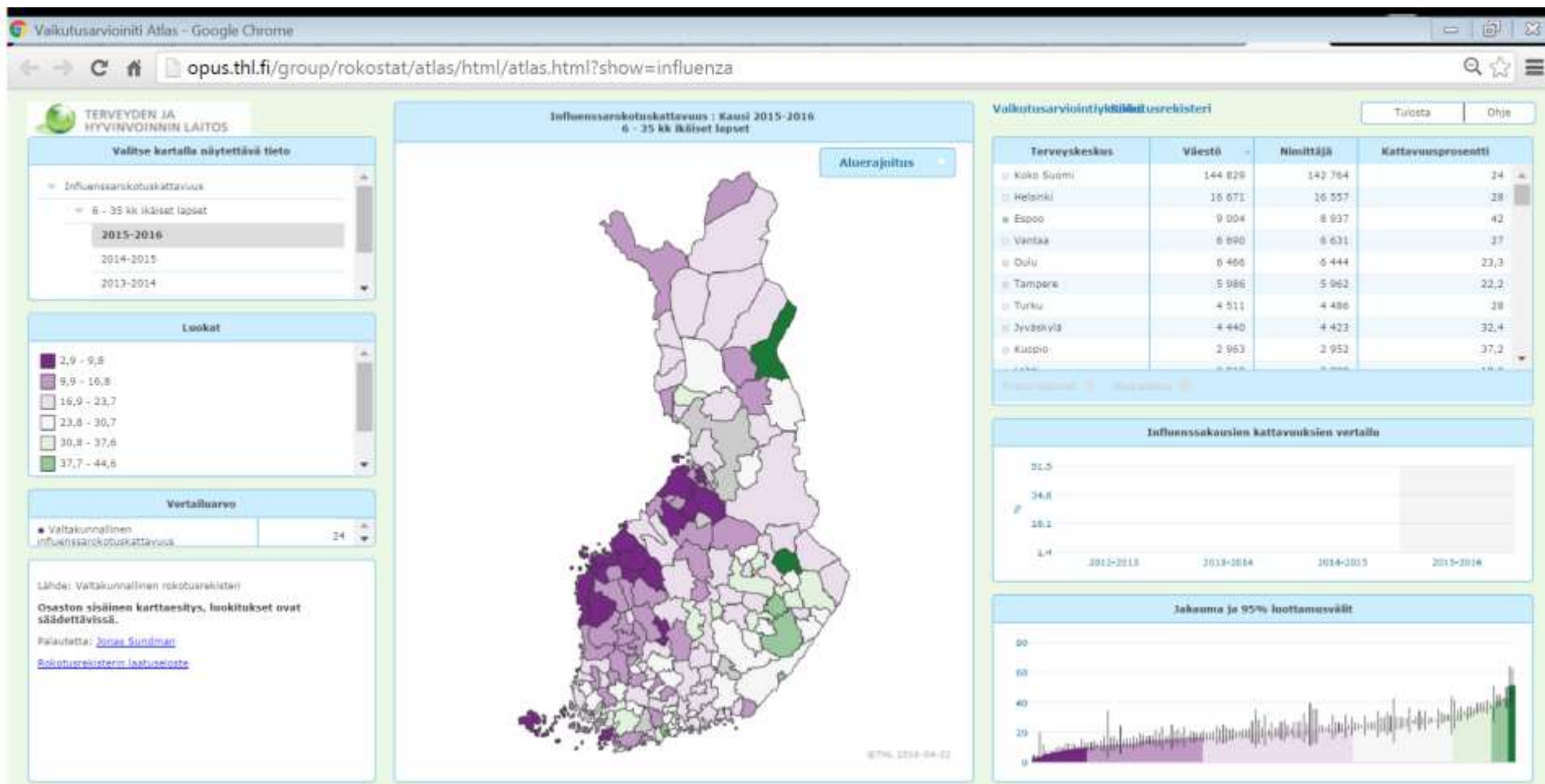
season 2015-16

Age group	n eligible	n included	% included	n vaccinated (TIV)	% vaccinated (TIV)	n vaccinated (LAIV)	% vaccinated (LAIV)
6-11m	27637	27129	98.2	7763	28.6		
12-23m	58094	56987	98.1	13778	24.2		
24-35m	59098	58858	99.6	4415	7.5	8323	14.1
3-6y	246413	245642	99.7	28452	11.6		

Are there regional differences ?

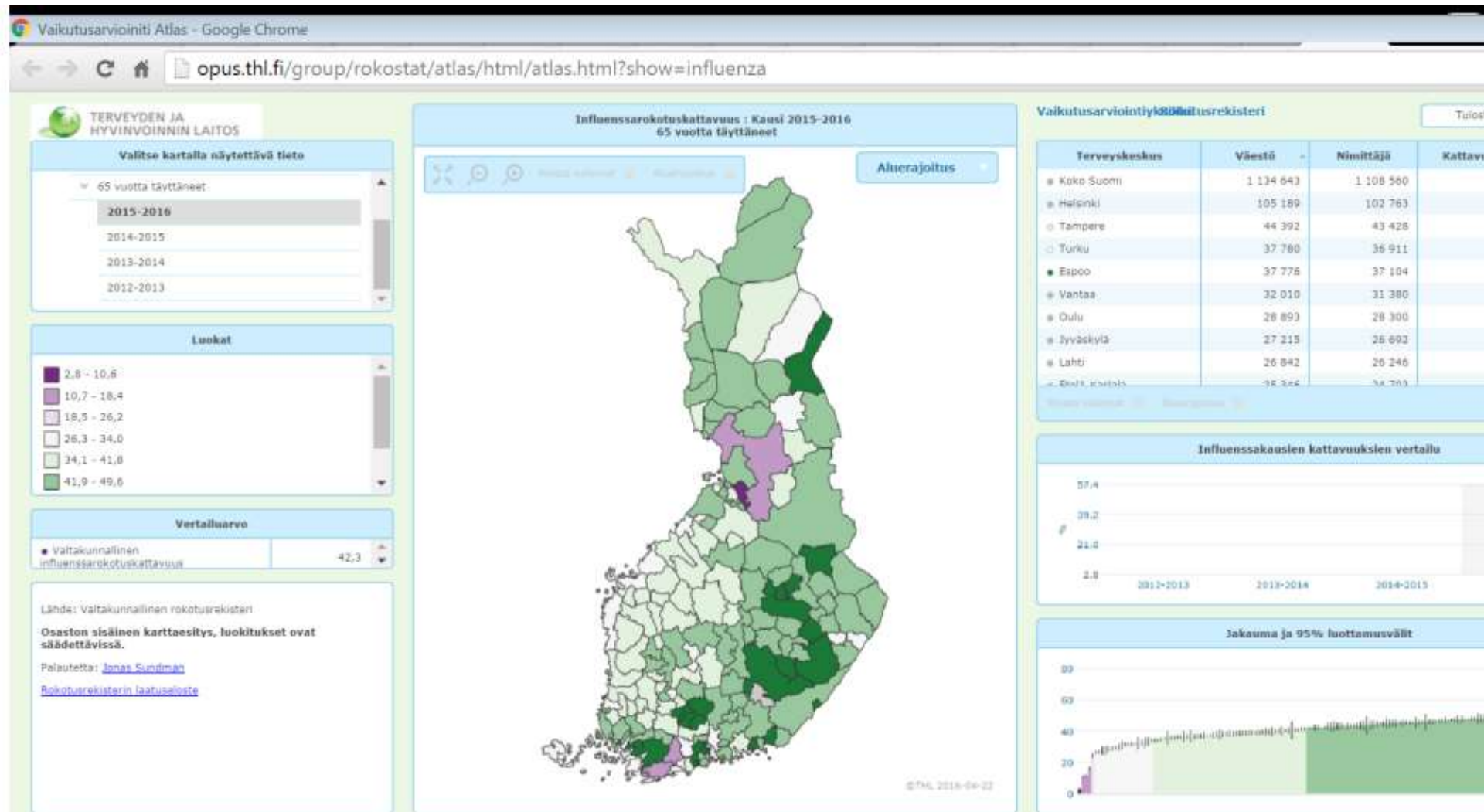
Major regional differences in SIV coverage children 6 - 35 mo

<https://www.thl.fi/roko/rokotusrekisteri/atlas/atlas.html?show=influenza>



Regional differences in TIV coverage Elderly >65 yrs

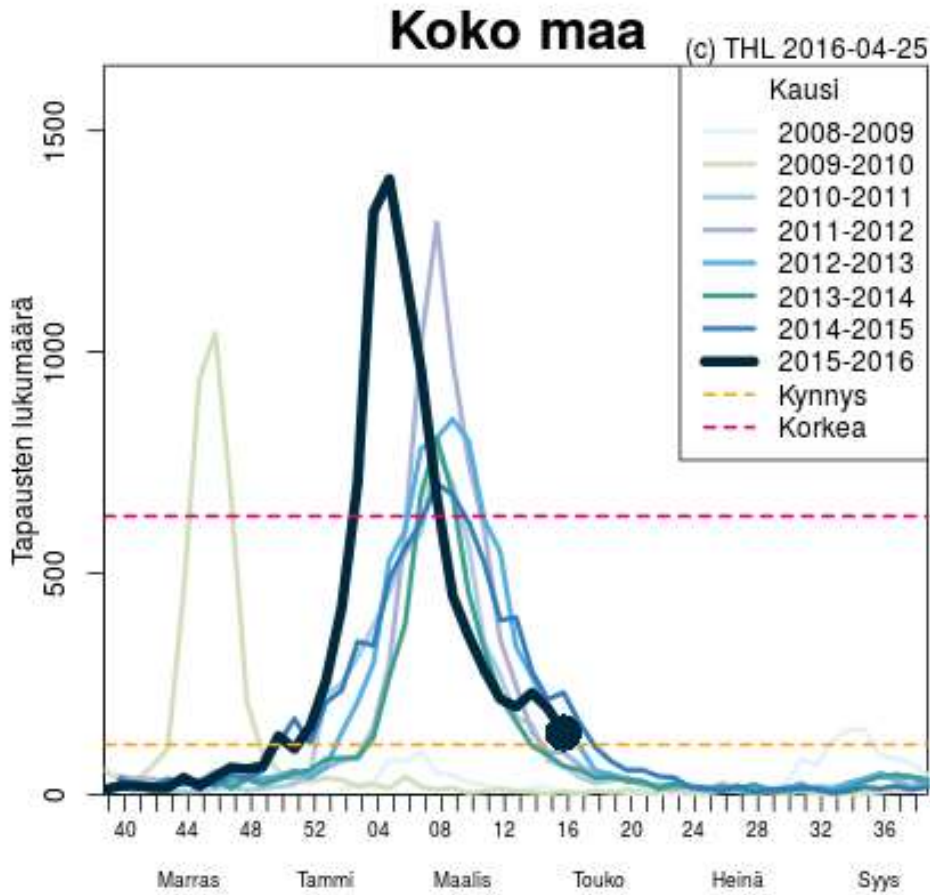
<https://www.thl.fi/roko/rokotusrekisteri/atlas/atlas.html?show=influenza>



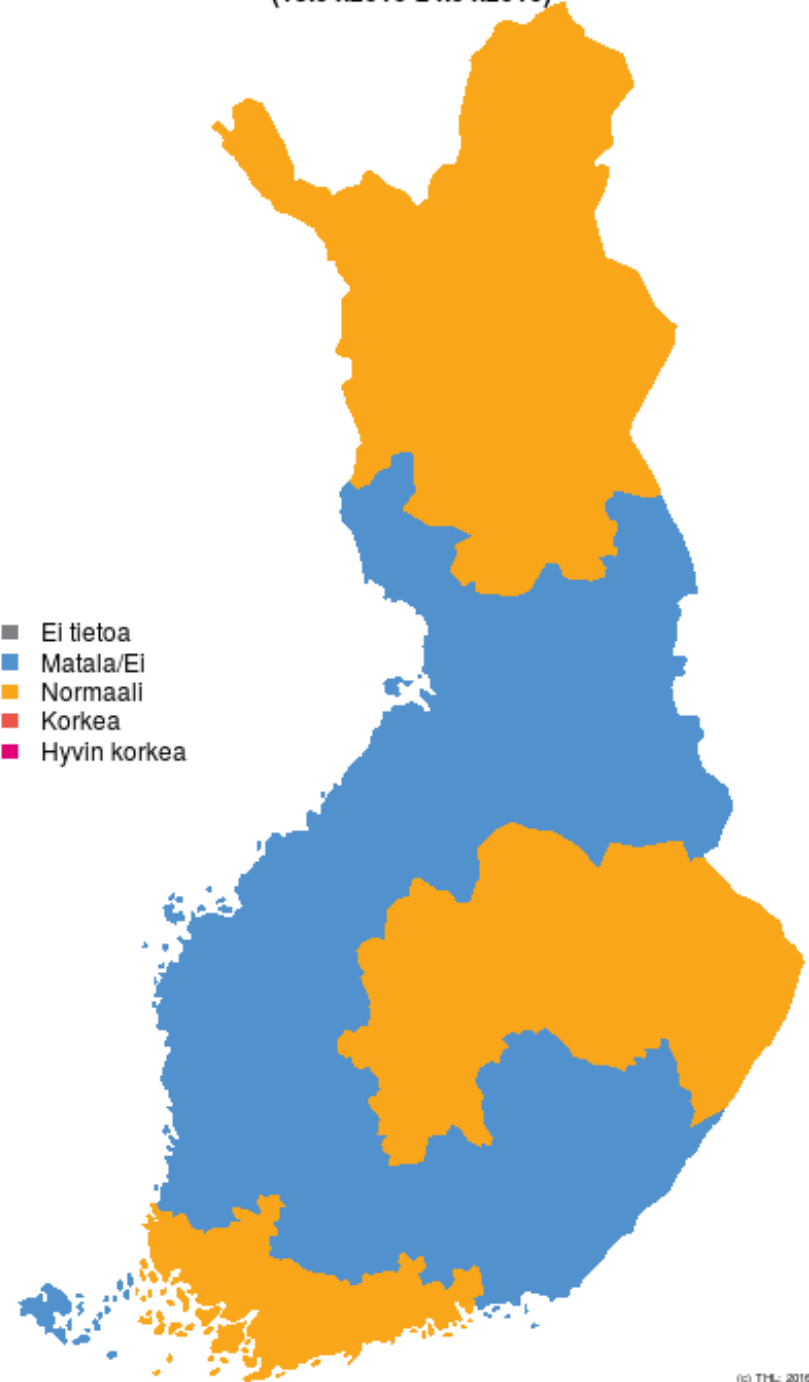
What has the epidemic been like ?

Influenza epidemic in Finland 2015-16

Viiikko 16
(18.04.2016-24.04.2016)



- Ei tietoa
- Matala/Ei
- Normaali
- Korkea
- Hyvin korkea



Influenza A vs. B isolations/ findings Finland 25.4.2016

Small children 0-4 y

A 1477 B 386

Children 5-14 y

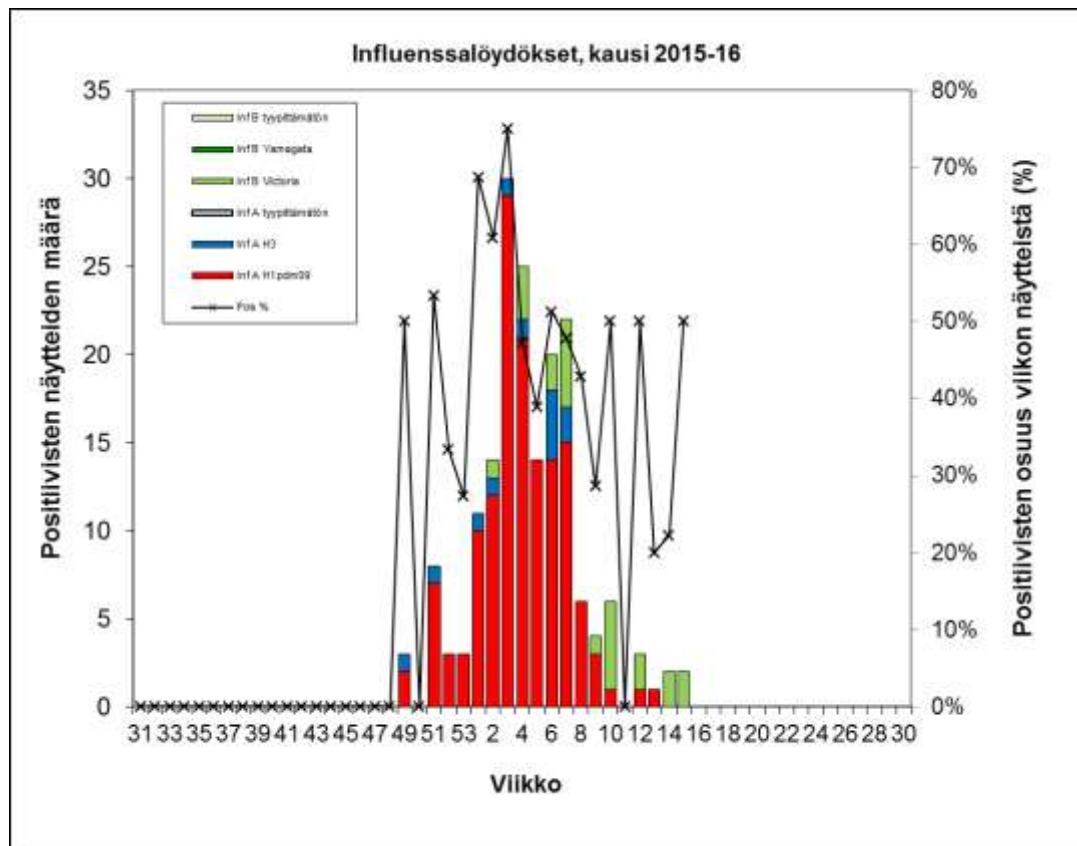
A 1274 B 1264

Youth, adults 15-64 y

A 6849 B 1704

Seniors 65+y

A 1709 B 318



NIDR

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Sentinel sites



Was the vaccine efficacious in preventing influenza ?

Seasonal 2015-16 influenza vaccine effectiveness as of 23.4.2016

Children 6-35 mo	N V-	N V+	VE%	95% CI
Laboratory confirmed	797	116	51	40 - 60
Clinical ILI	420	50	60	46 - 70

Population	N eligible	N included	%included	vaccinated	% vacc+
6-35 mo	144829	142978	98.7	34370	24

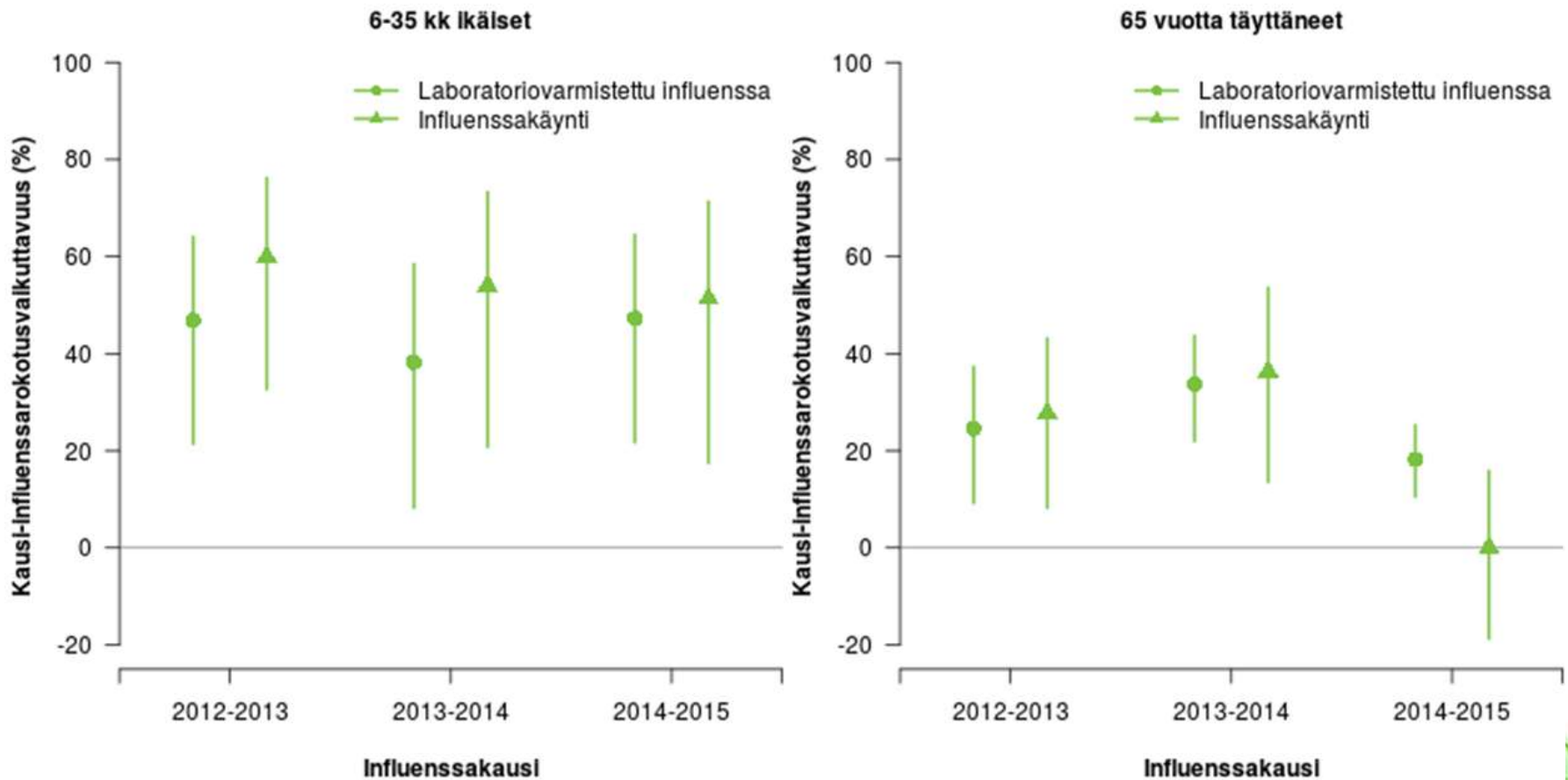
Seniors ≥ 65 yrs	N V-	N V+	VE%	95% LV
Laboratory confirmed	1475	513	51	45 - 55
Clinical ILI	404	120	54	44 - 63

Population	N eligible	N included	%included	vaccinated	% vacc+
≥ 65 yrs	1134643	1133858	99.9	475609	42

VE₂₀₁₅₋₁₆ **compare to**
VE in previous
years ?

Influenza vaccine effectiveness during seasons 2012-2015

Children 6 – 35 mo



Conclusions of the 2015-16 season

- **Coverage improved** in young and old, how much resulting from
 - availability of LAIV ?
 - early start of season ?
 - influenza vaccination related news mostly positive in media ?
- **LAIV accepted** but to lesser degree than expected
- Majority of cases **A(H1N1)**, except in children 5-14 yr
- Good match for A-viruses -> **Overall VE good**



Future

- Improve understanding on who gets influenza vaccine and why/ why not
- VE calculations in light of propensity, health status, previous vaccination history, and circulating strains
- Next season Finland will purchase
 - TIV (Influvac^R) 1,4 mi doses
 - LAIV (Fluenz Tetra^R) 22 500 doses
- Revisit national influenza vaccination strategy (NITAG)



Pakka p er fyrir - takk

- Thank you to the THL research team

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