



# **Suorat** rokotusvaikutukset eri ikäryhmäkohtaisilla rokottamisilla

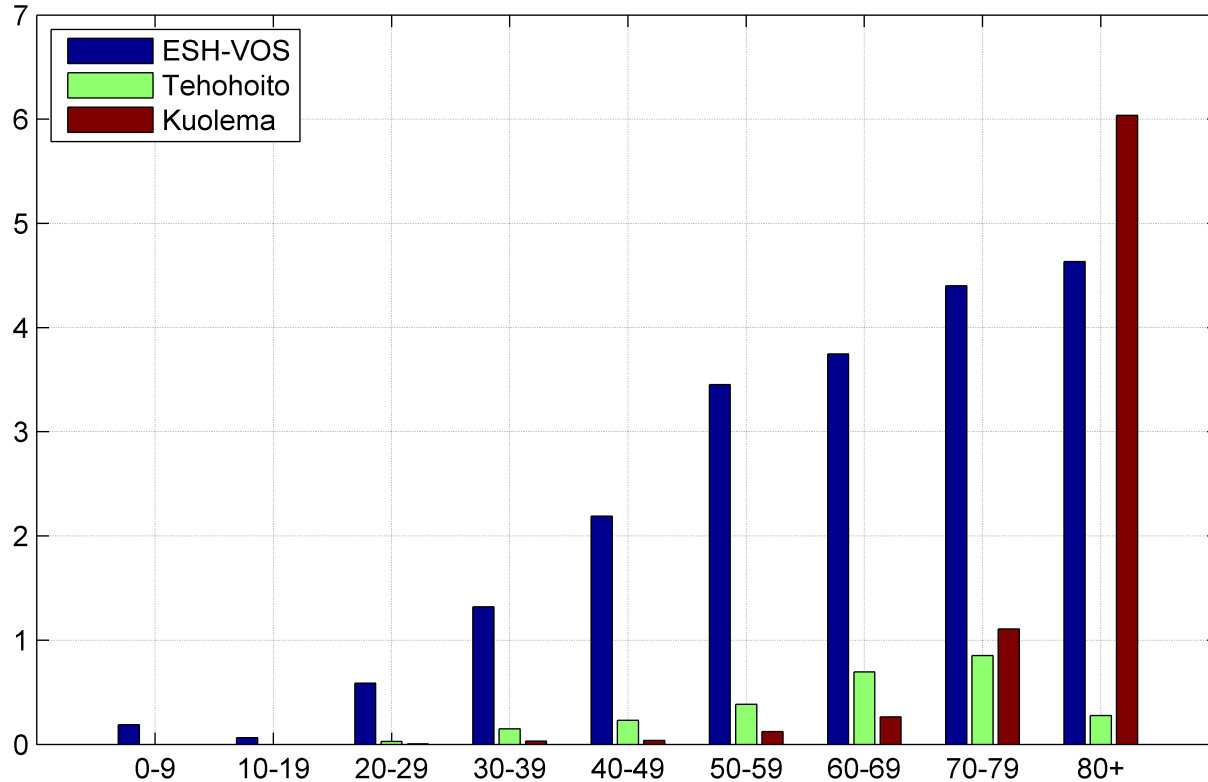
**STM/THL tilanneryhmä 3.2.2021**

Simopekka Vänskä & Tuija Leino

2.2.2021

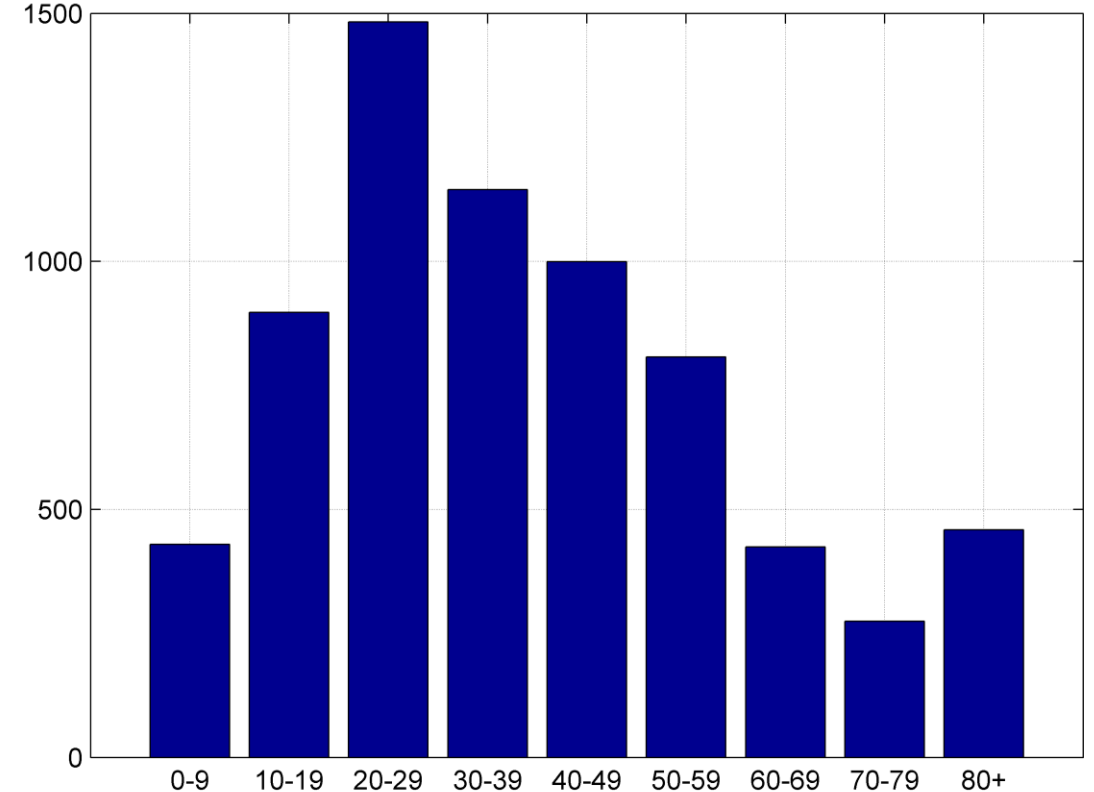
# Lähtökohta: Ilmaantuvuudet ja tapaukset ikäryhmittäin

Ilmaantuvuus ikäryhmittäin per 100,000 per vko



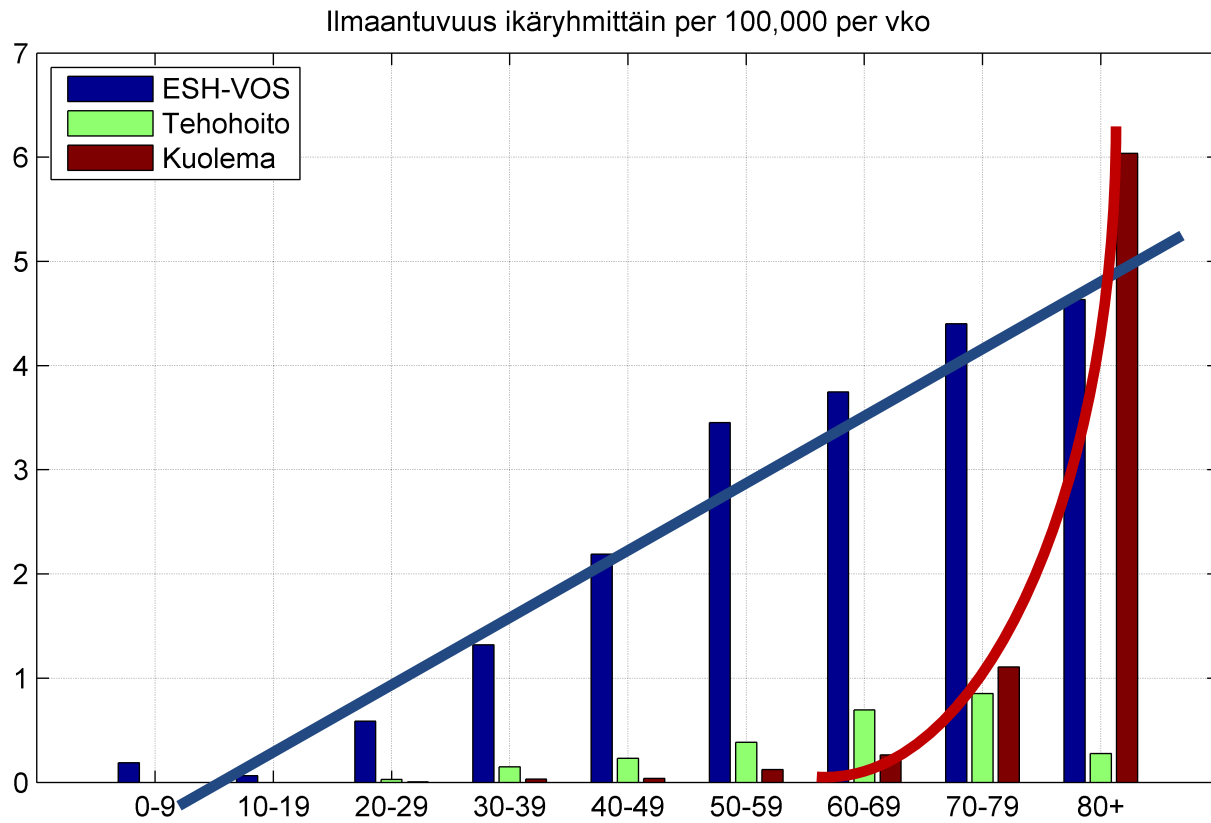
9.11.2020 jälkeen

Havaitut koronatartunnat yhteensä ikäryhmittäin per 100,000

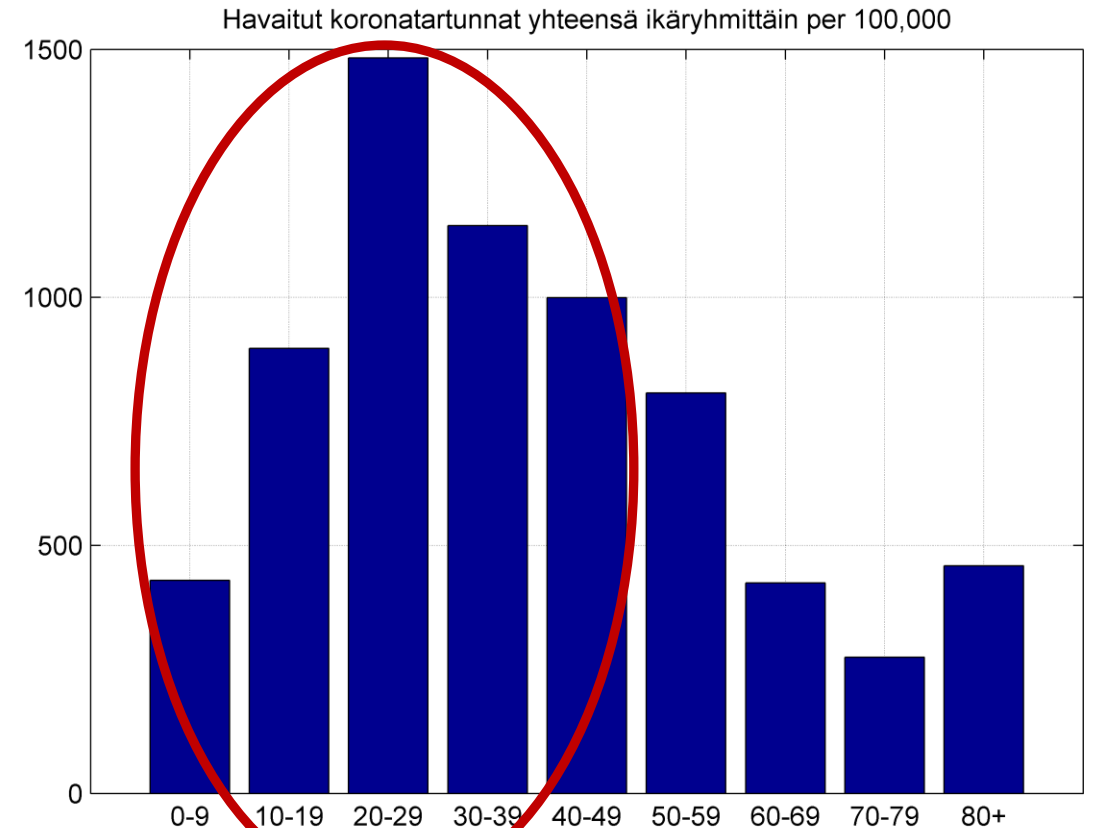


Koko epidemian ajalta yhteensä

# Lähtökohta: Ilmaantuvuudet ja tapaukset ikäryhmittäin



9.11.2020 jälkeen



Koko epidemian ajalta yhteensä

# Annosten saapumisen skenaario

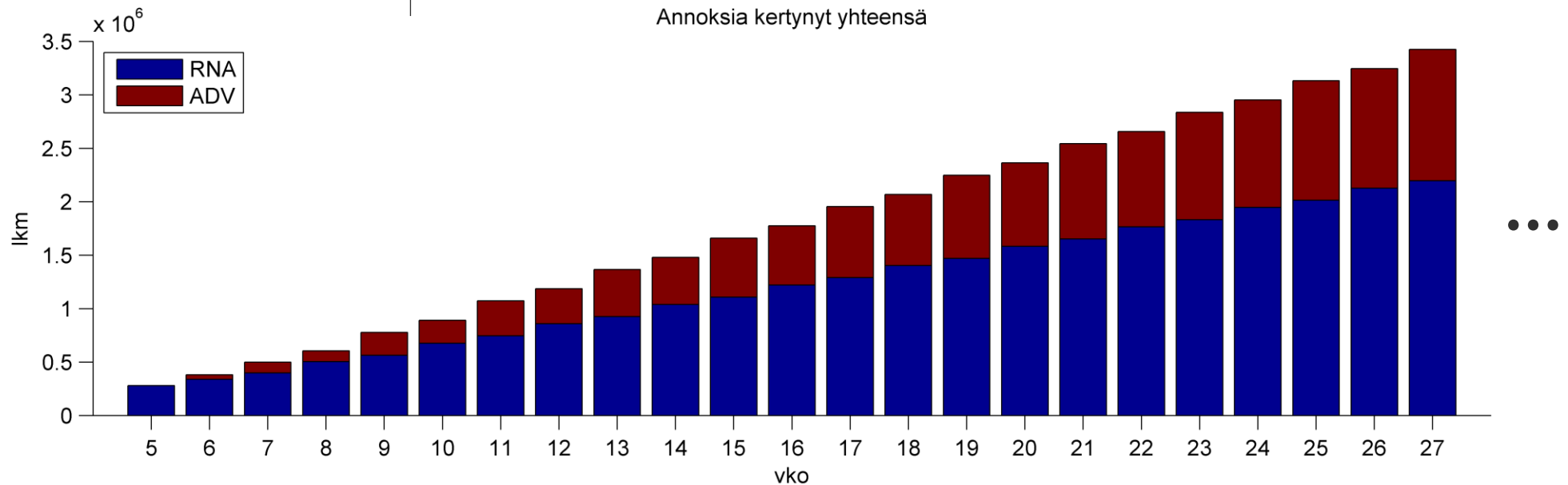
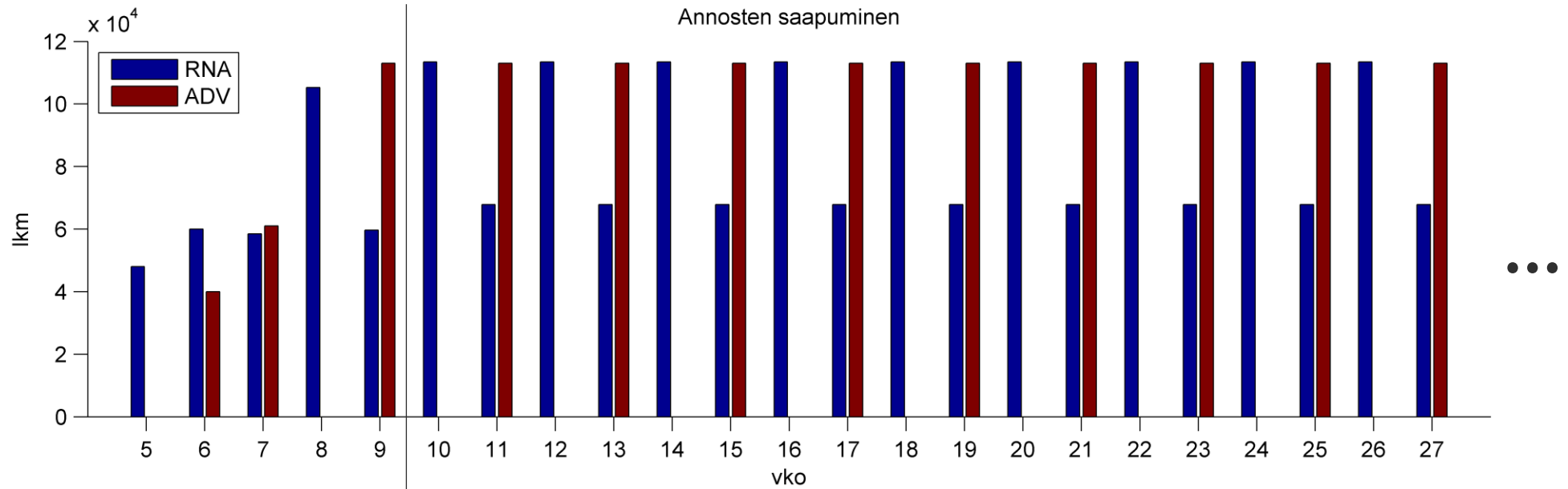
## RNA

- BioNTech-Phizer
- Moderna

## ADV

- AstraZeneca

Vko 9 asti ”tiedossa”,  
siitä eteenpäin arvio



# Kysymykset

Annetaanko 70+ vuotiaille vain mRNA-rokotteita vai kaikkea saatavilla olevaa?

- Vrt kuolleisuus
- Miten vaikuttaa sairaalahoitoihin?

2. annoksen siirtäminen?

- Nopeammasta kattavuuden noususta saatava hyöty?

# Laskennan oletukset

	RNA		ADV	
	2. annos ajall.	Siirretty 2. annos	2. annos ajall.	Siirretty 2. annos
VE, ikäriippumattomasti	95%	90%	60%	60%
Rokotusväli	4 vko	-	12 vko	-
Suojan syntymisen viive (1. annoksesta)	3 vko	3 vko	4 vko	4 vko

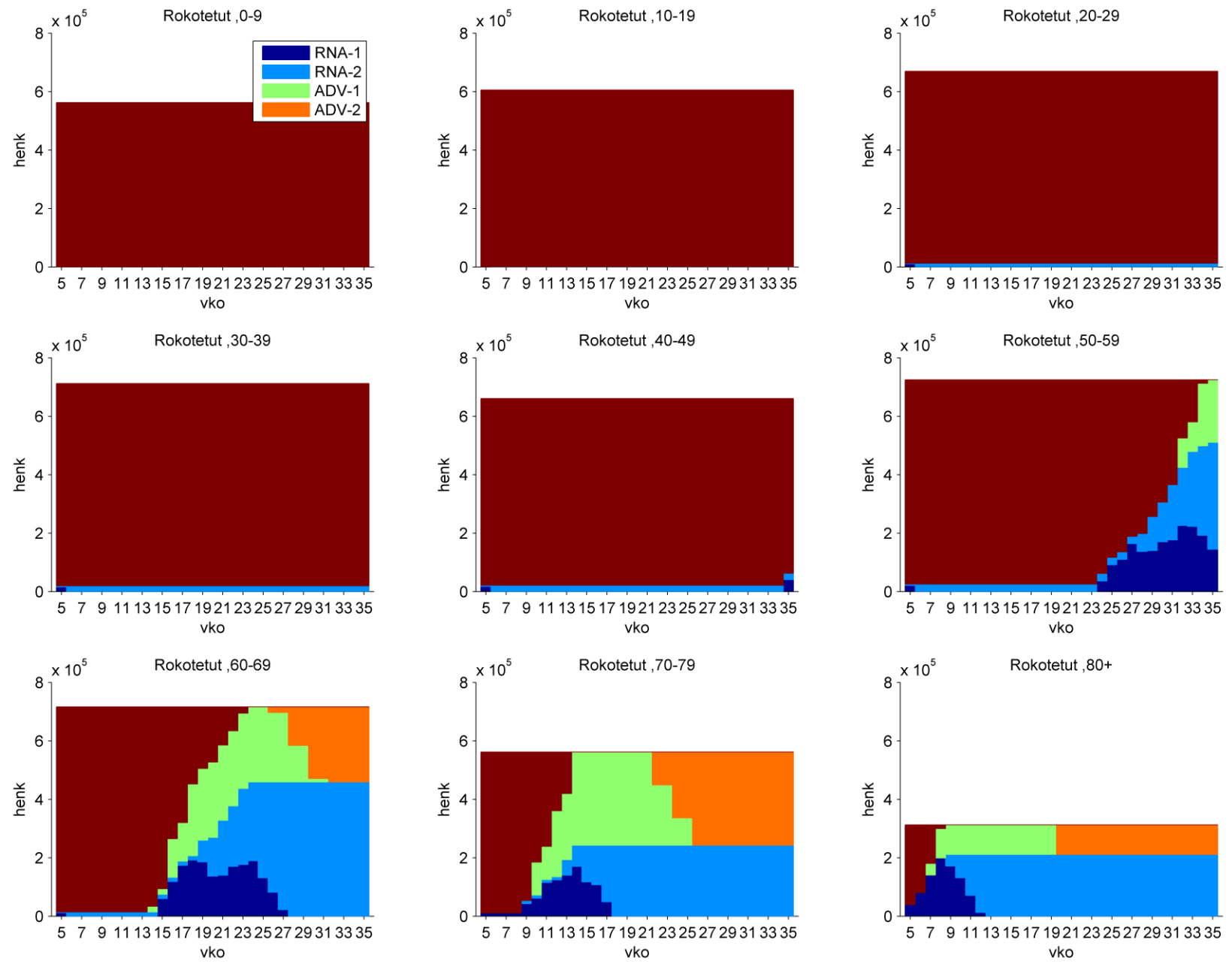
- Tarkasteluviikot 5 – 35
- Ennen viikkoa 5 annetut annokset mukana

Vain **suora suoja** ”kertolaskulla”, ei laumavaikutuksia, joiden laskemiseen tarvittaisiin transmissiomallia.

# **Ikäryhmäkohtaiset rokotuskattavuudet ajassa**

# Rokotusskenaario A ”by book”

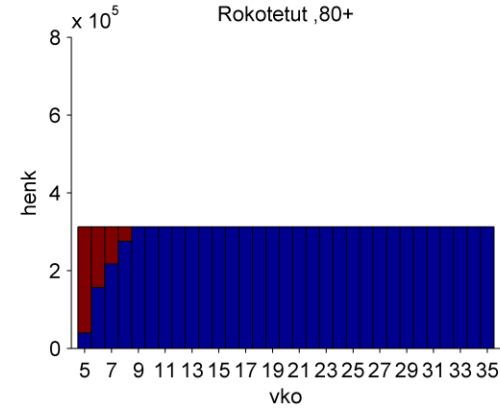
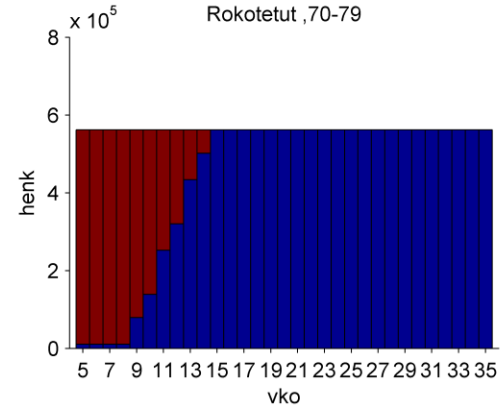
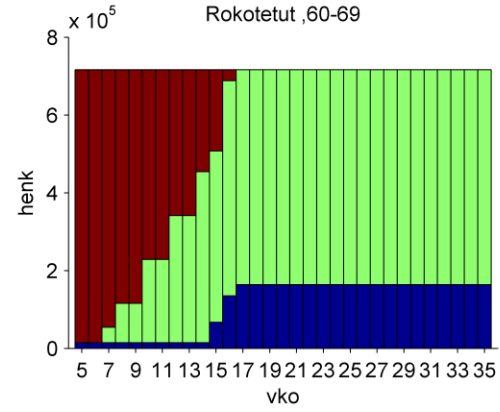
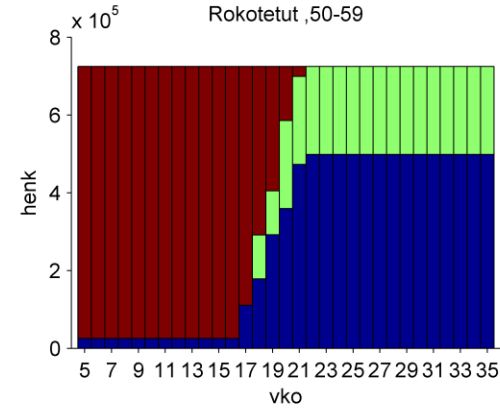
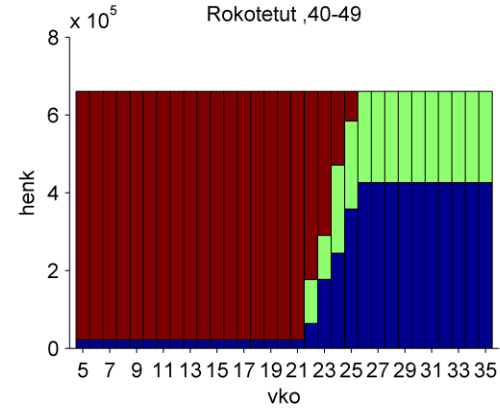
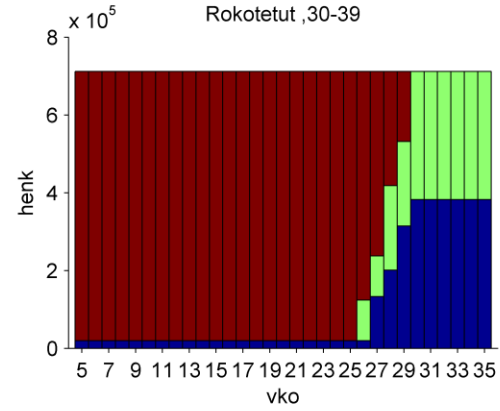
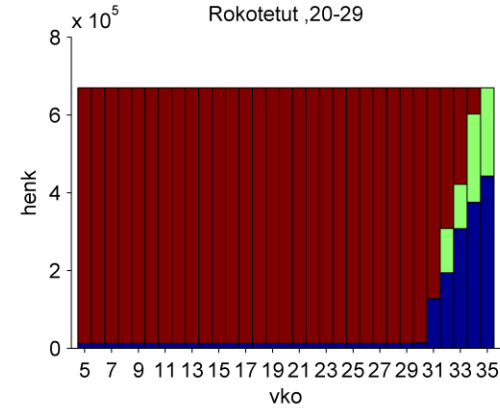
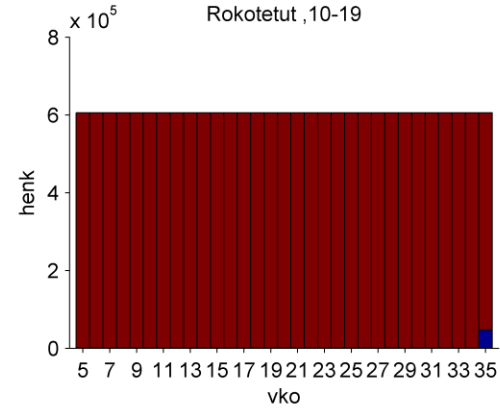
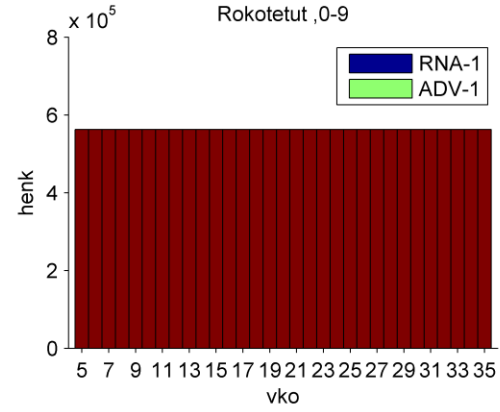
- Kaikkea kaikille
- Vanhimmista alkaen





# Rokotuskenaario C ”siirretty 2. annos”

- 70+ vain RNA-rokotteet
- Vanhimmista alkaen

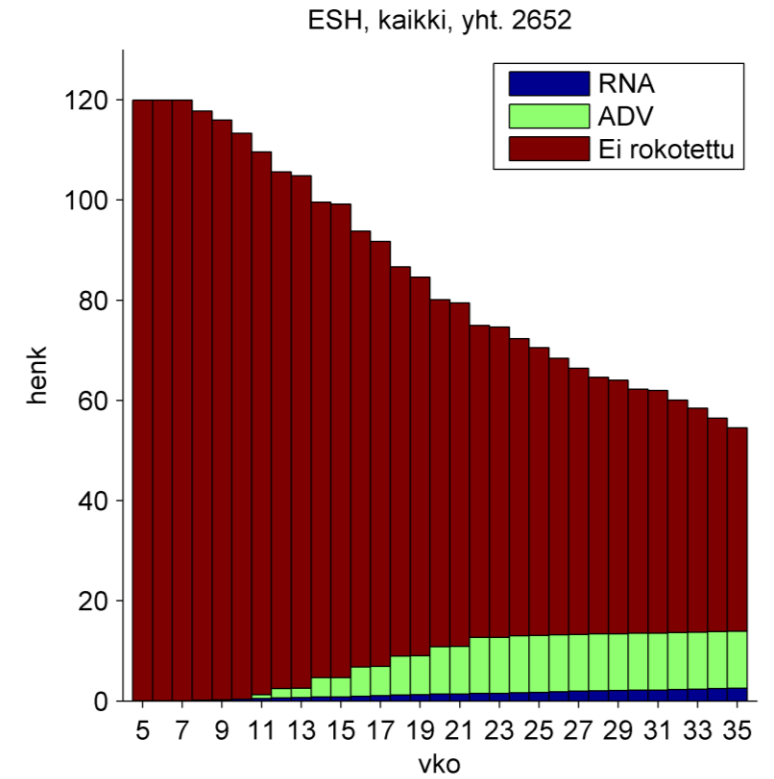
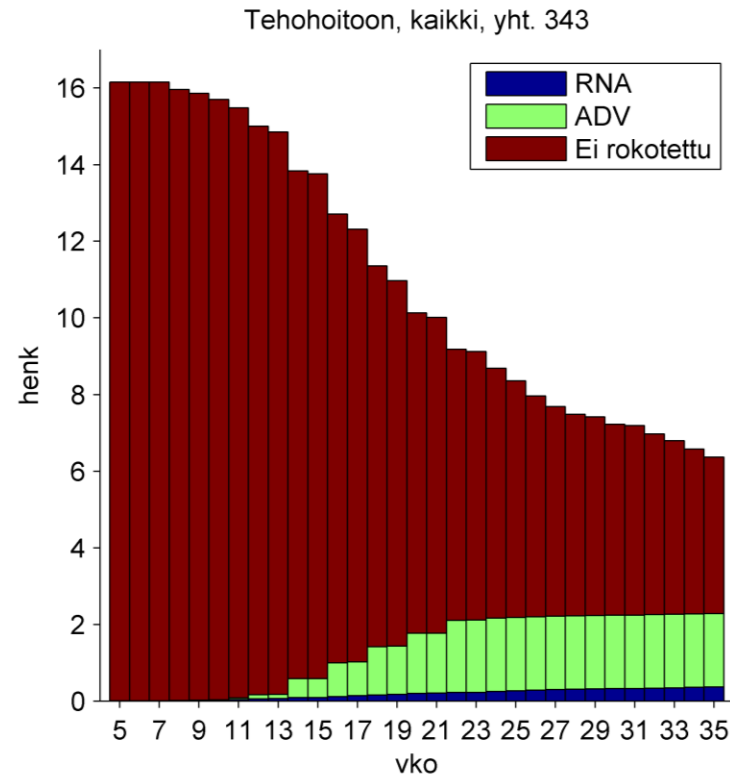
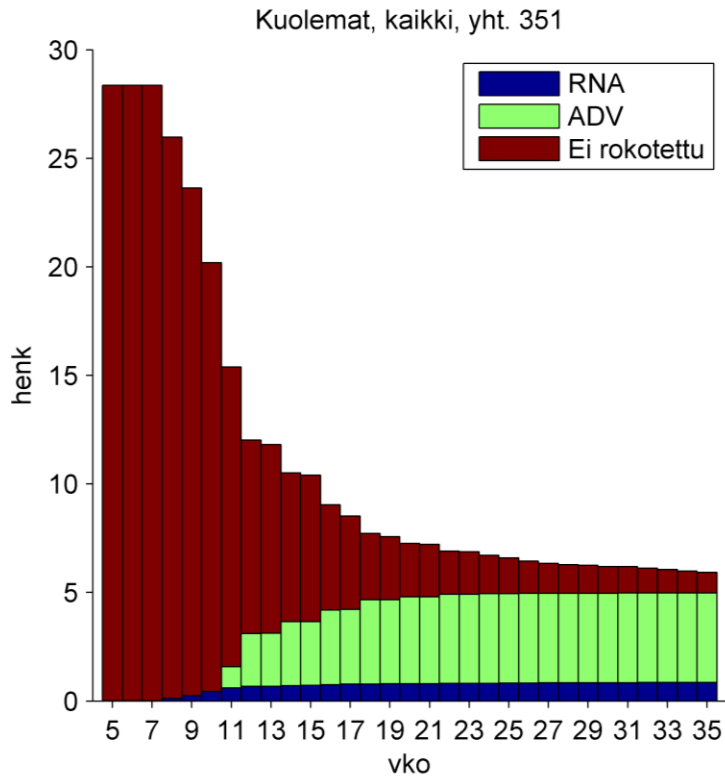


# Millä viikolla ikäryhmä rokotettu väh. 1 annos

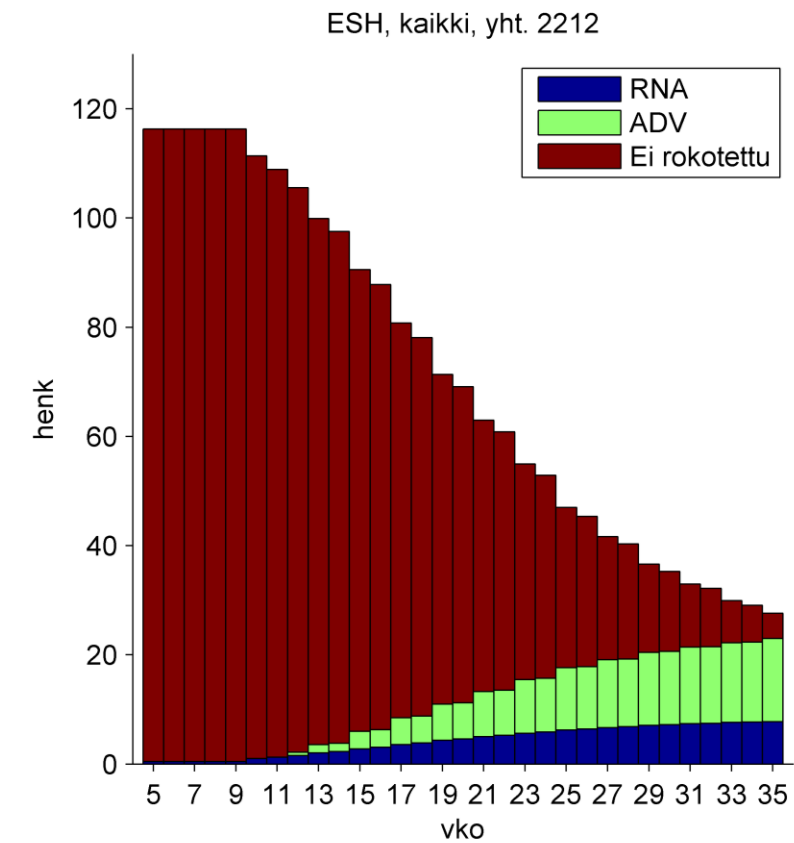
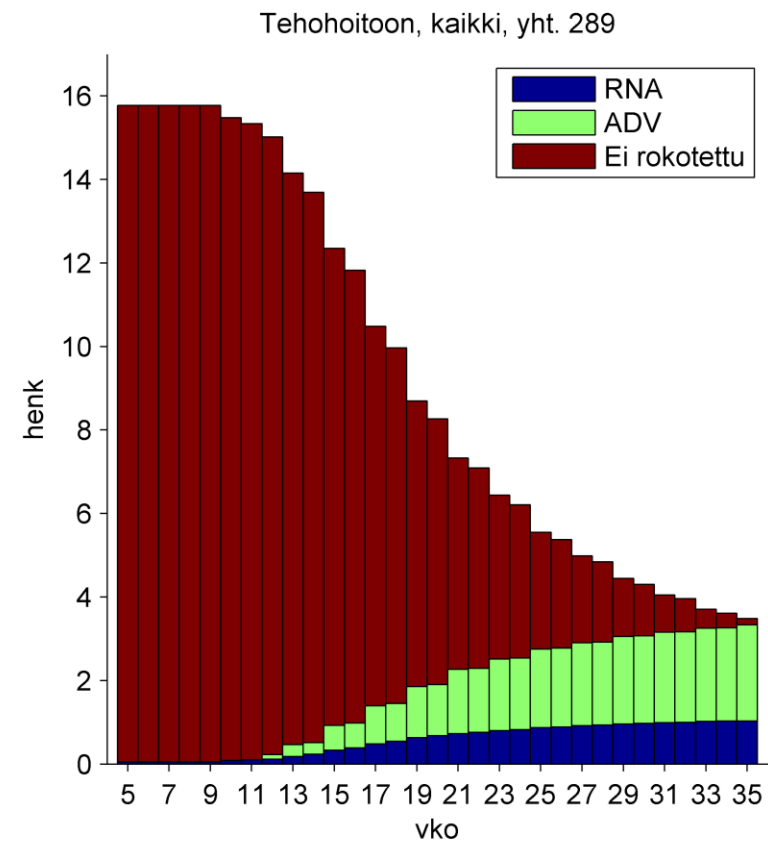
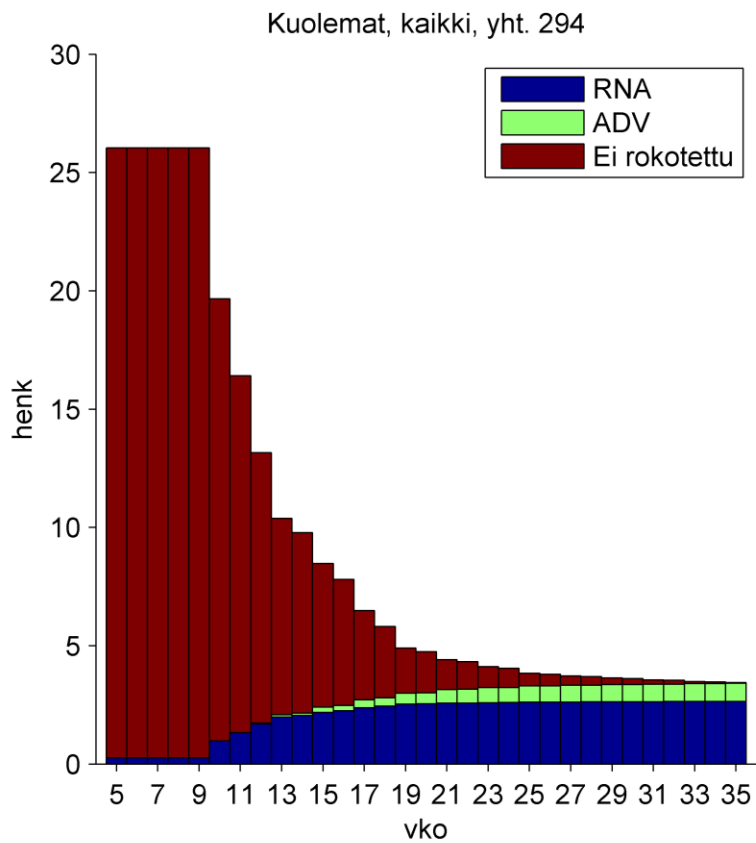
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+
A						35	24	14	9
C			35	30	26	22	17	15	9

Mikäli annokset saapuvat skenaarion mukaan, niin 20+ ikäryhmät on siirretty 2. annoksen strategialla rokotettu viikolla 35

# Skenaario A



# C



# Johtopäätökset & esitys

Esitys	Epidemiologinen peruste	Rokotteiden yleinen toimintaperuste /muu
2. annoksen siirtäminen <ul style="list-style-type: none"><li>• Kunnes 1. annos jaettu</li><li>• Kunnes uusia valmisteita</li></ul>	Nopeuttaa rokotuskattavuuden nousua <ul style="list-style-type: none"><li>• Vähemmän kuolemia</li><li>• Vähemmän sairaalahoitoja</li></ul> Mahdollistaa 2. annoksen antamisen modifioidulla rokotteella Varma VE=0% niille 50%:lle, joille rokotteen saaminen viivästyy	<ul style="list-style-type: none"><li>• Myöhäisempi 2. annos <i>parantaa</i> pitkässä juoksussa tehoa ja immunologista muistia</li><li>• Skenaarion mukaisellakin rokotteiden saapumisvauhdilla 2. annosta päästään antamaan kesän lopulta</li><li>• Vakavien tautitapausten suoja ehkä jopa käytettyä VE:tä parempi</li></ul>
70v+ vain RNA –rokotteita	Vähennetään kuolemia, ei nosta sairaalataakkaa (käytetyillä VE:illä)	RNA-rokotteilla hieman varmempi tieto tehosta ikääntyneillä

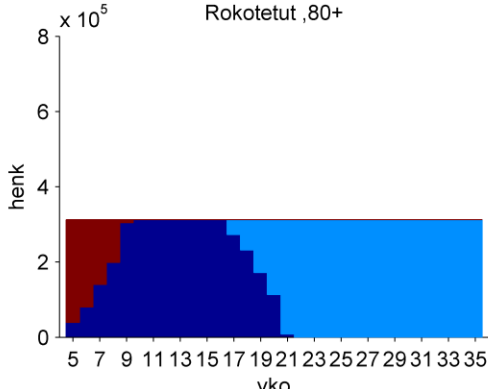
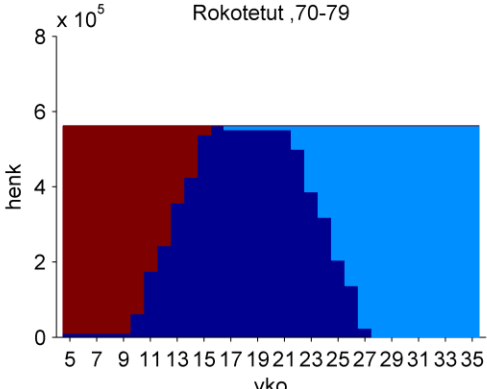
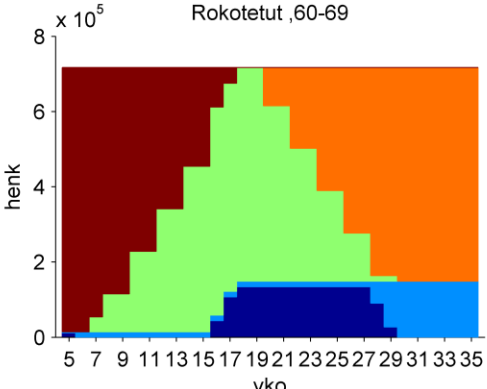
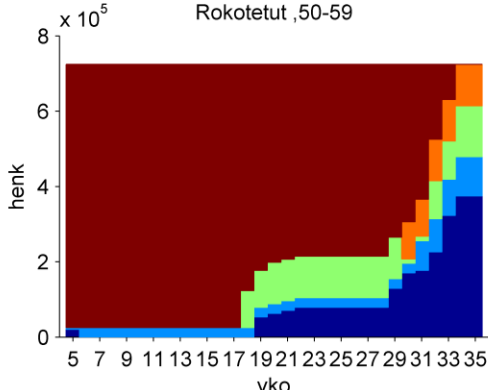
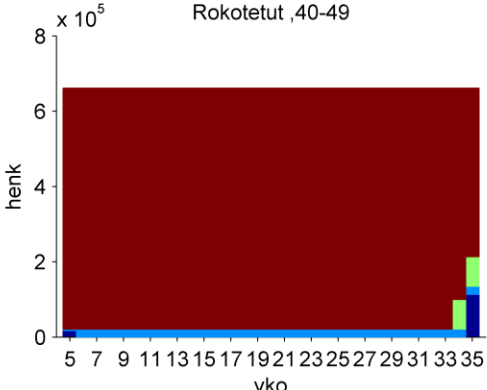
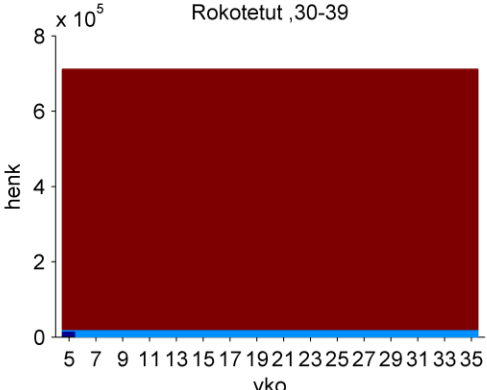
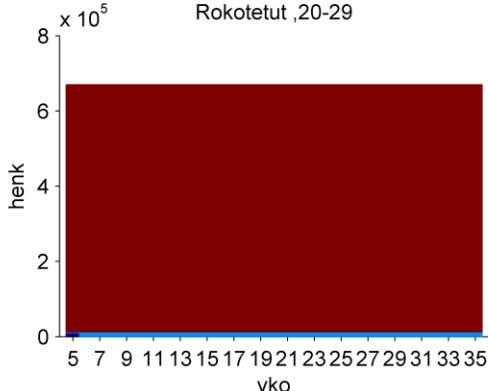
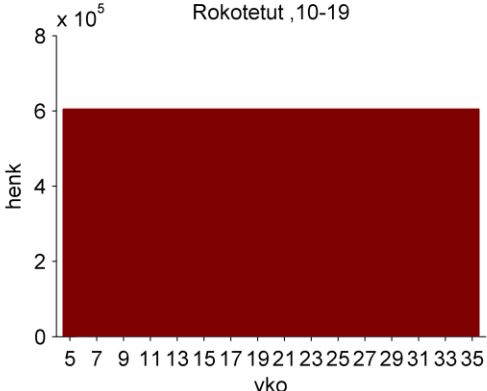
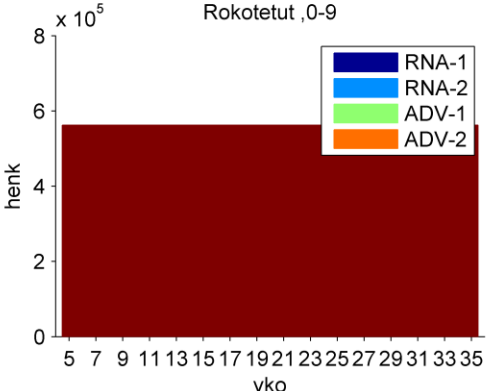
Kohdentaminen riskiryhmiin nopeuttaa vaikutusta – ei sisällytetty analyysiin

# Rokotusskenaario KRAR valinta 12vko

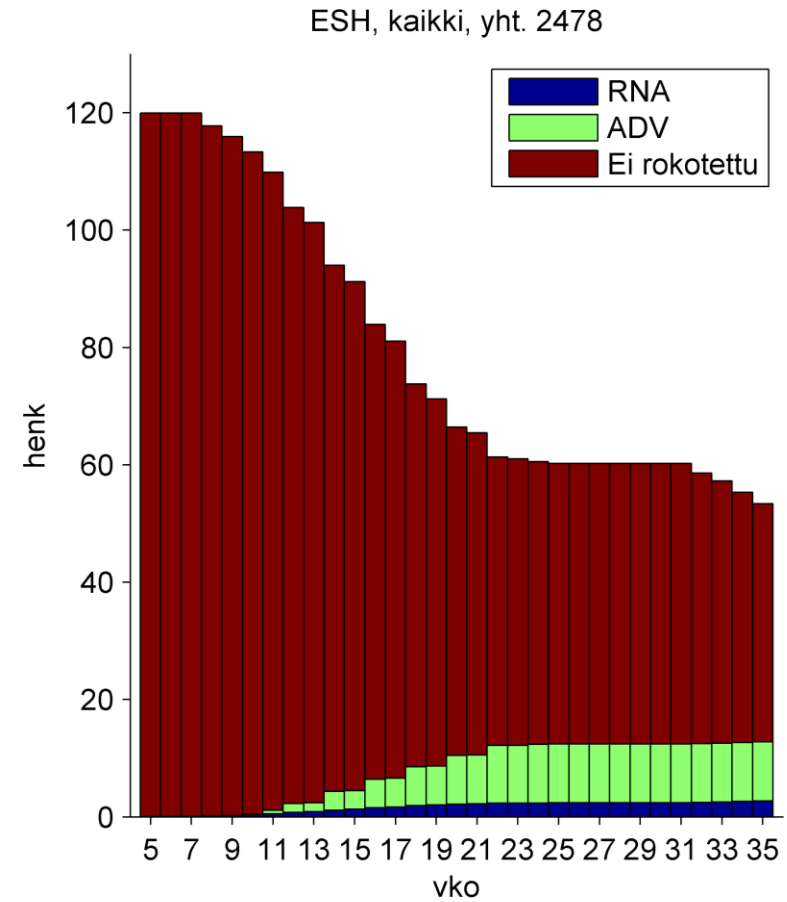
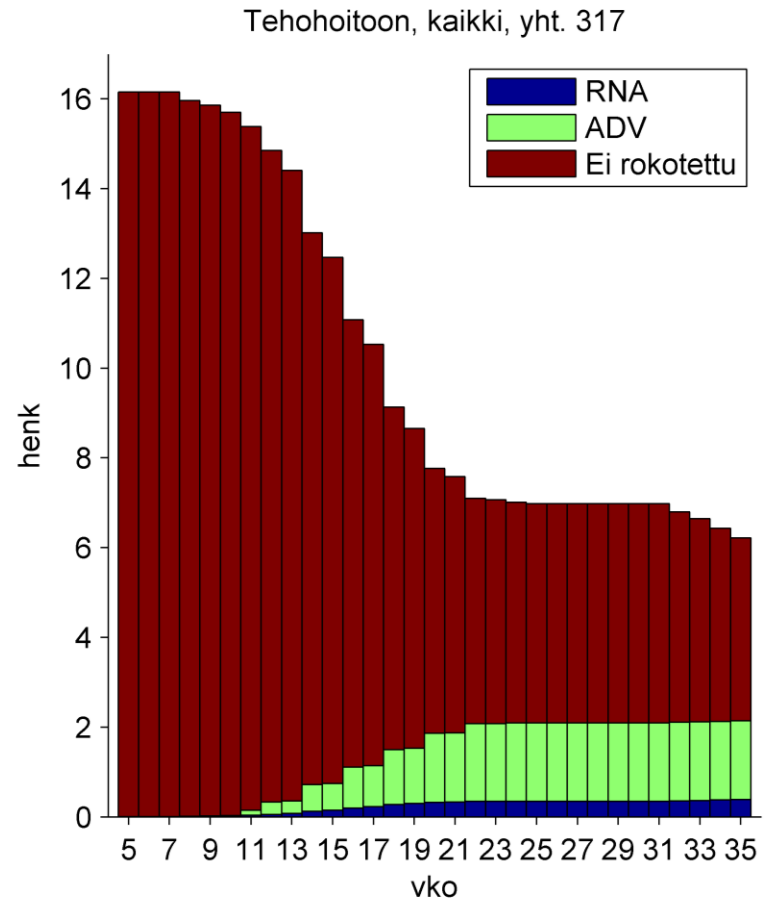
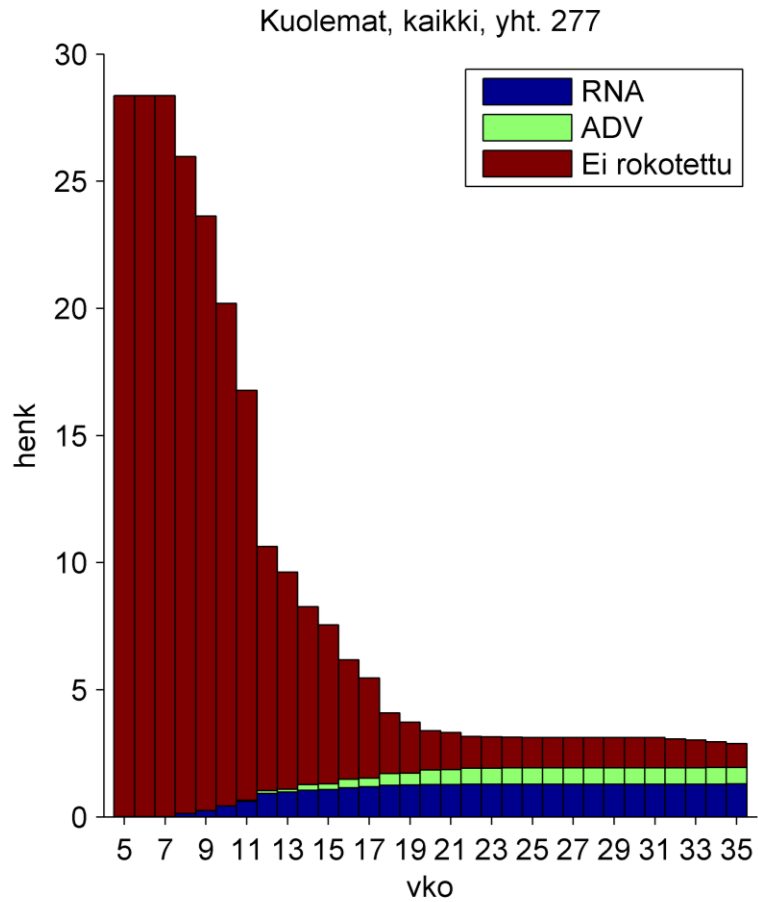
- 70+ vain RNA-rokotteet
- Vanhimmista alkaen

12 vkon kuluttua rokotteet menevät 2. annokseen

- Mutta odotus siitä, että siihen mennessä uutta tietoa:
  - käytettävissä olevista annoksista
  - rokotteiden suojasta



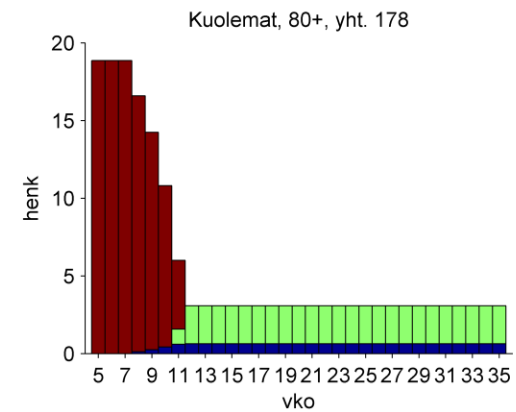
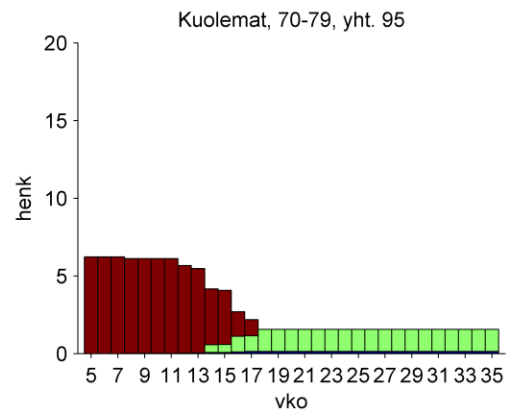
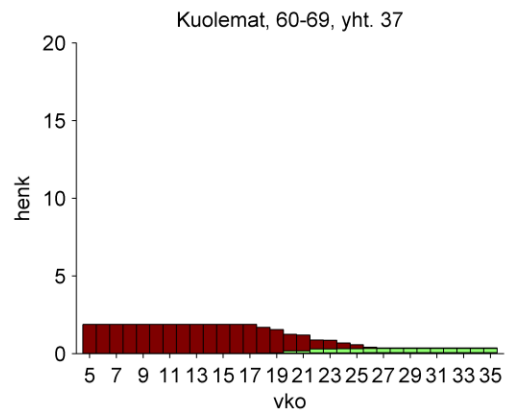
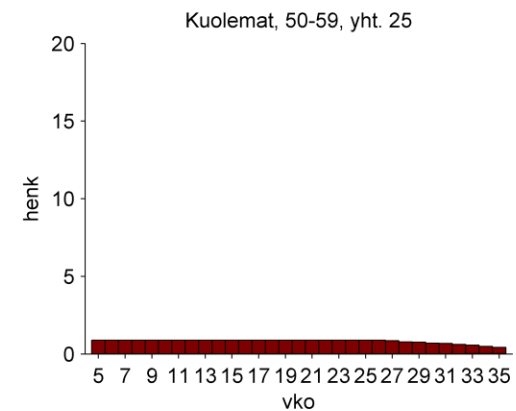
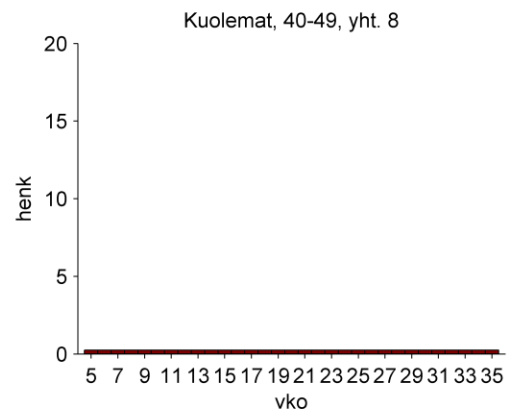
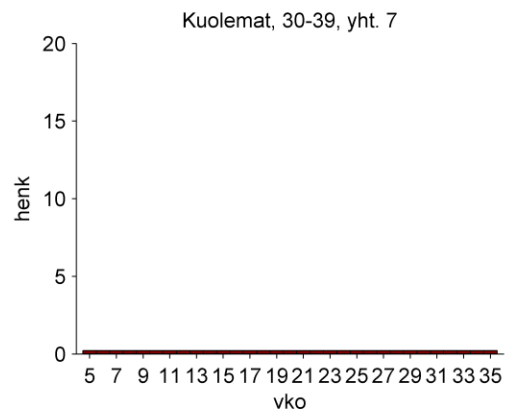
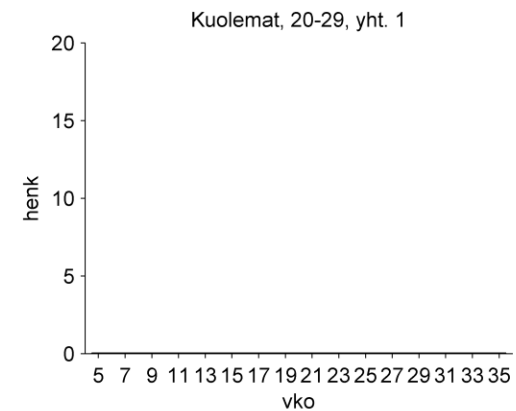
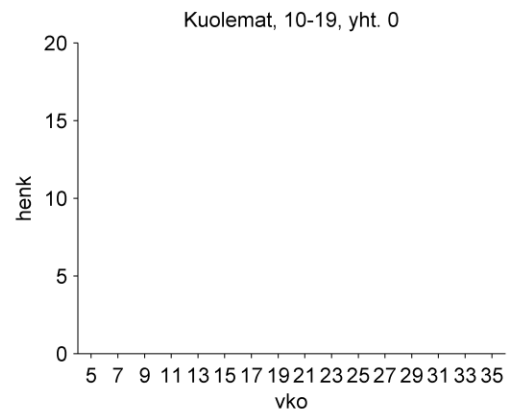
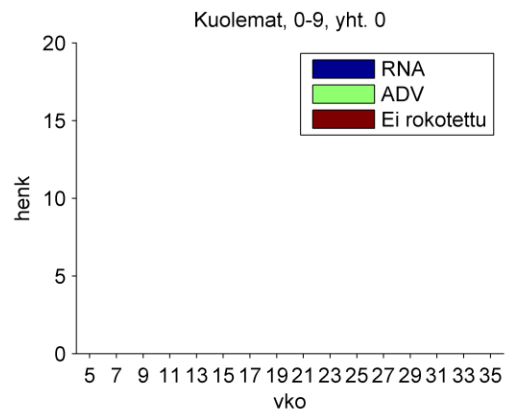
# KRAR suositus



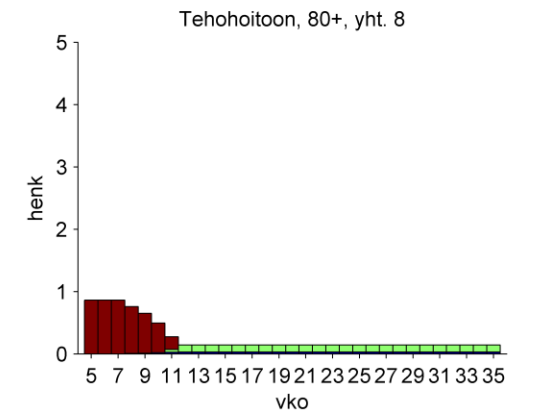
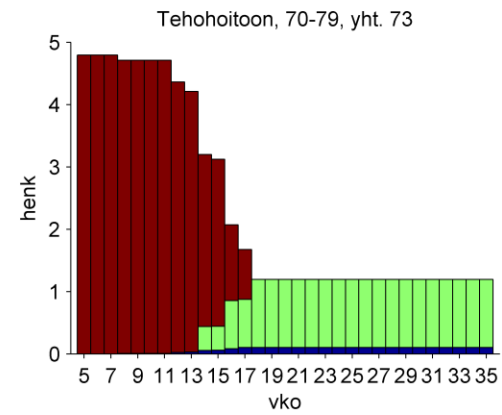
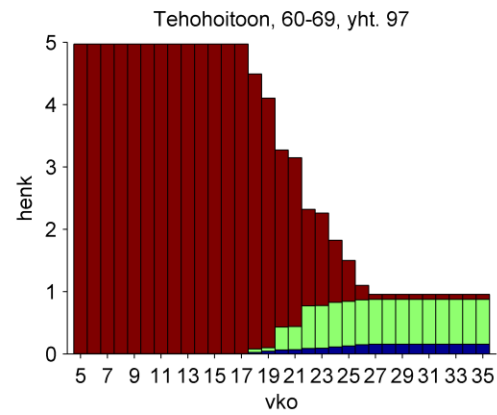
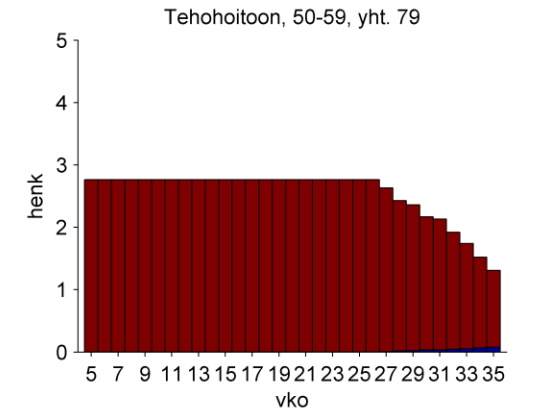
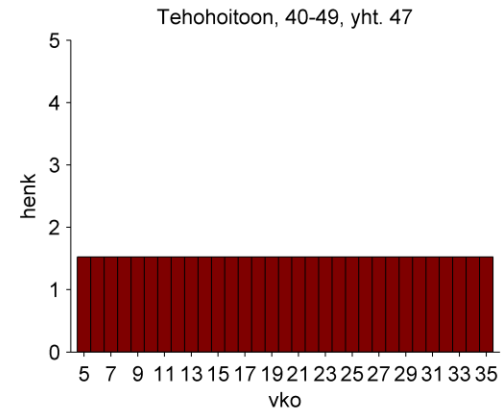
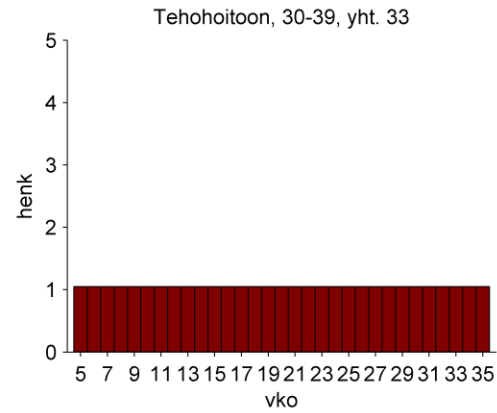
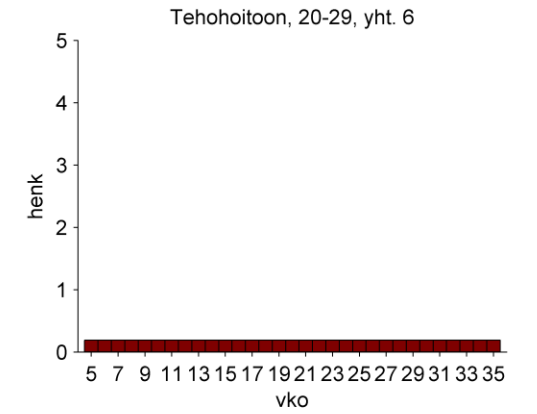
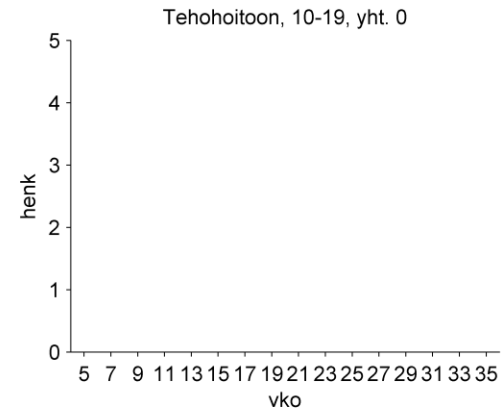
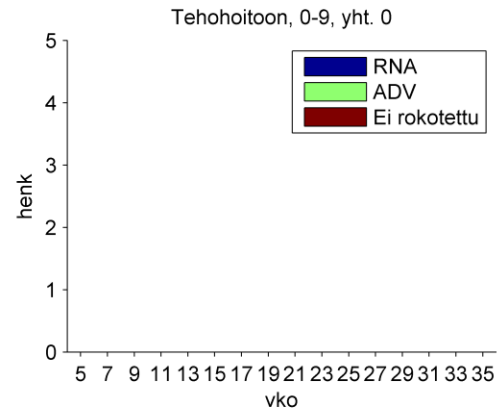
# **Ikäryhmäkohtaisia tauti-ilmaantuvuuksia**



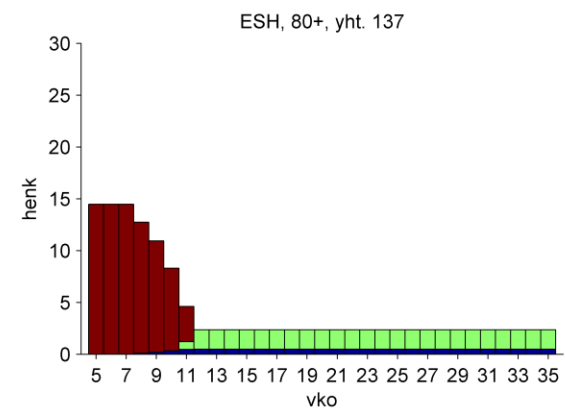
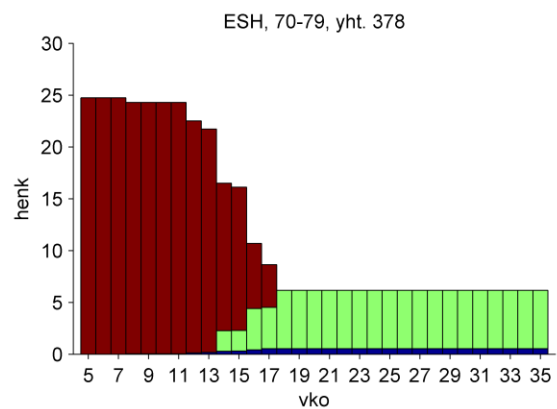
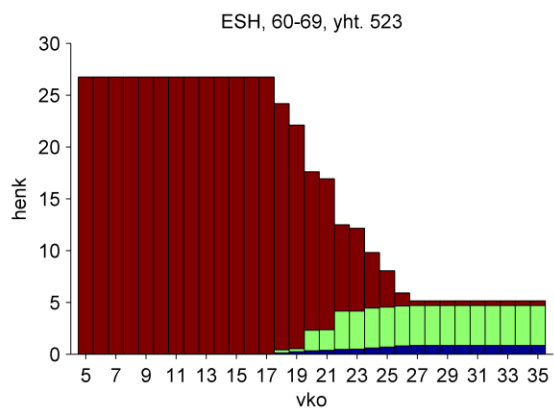
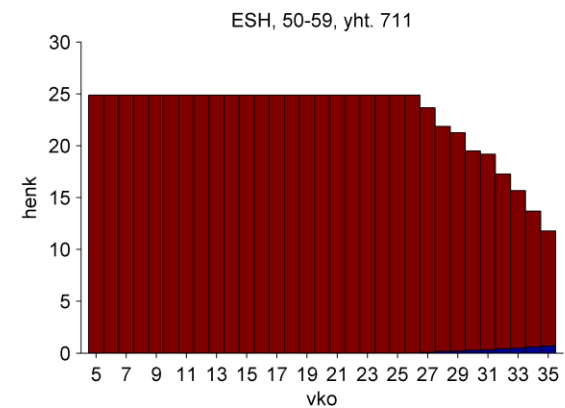
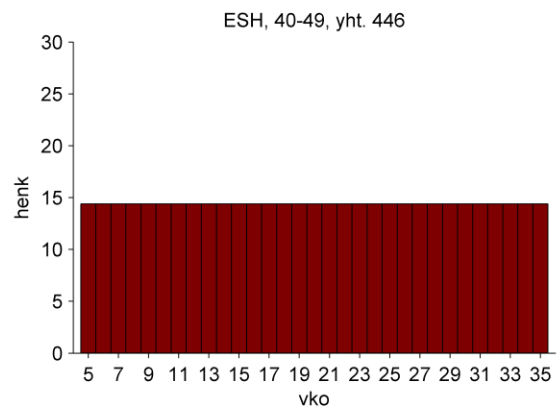
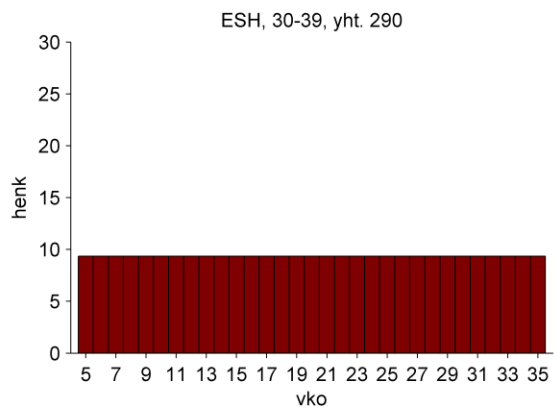
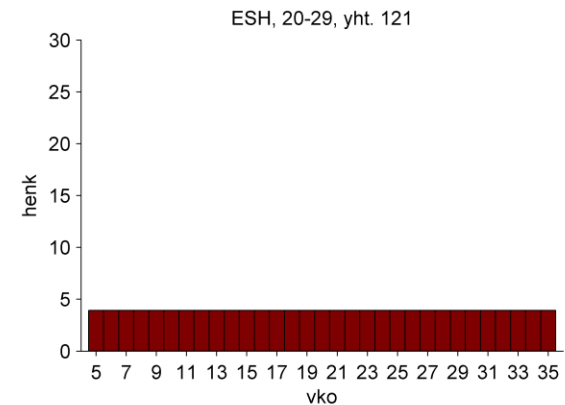
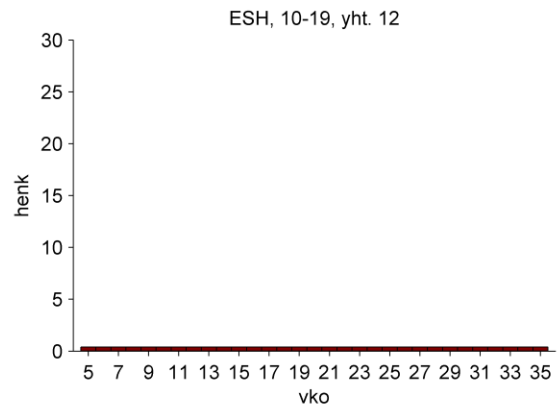
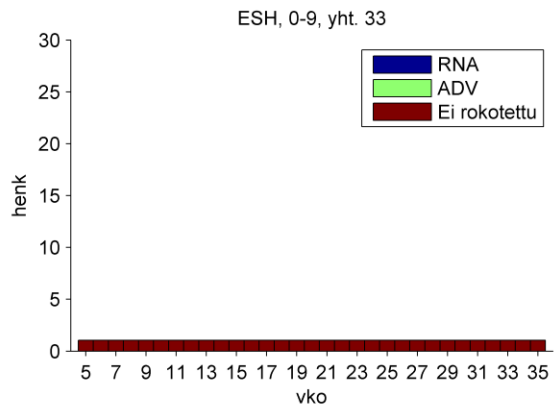
# A



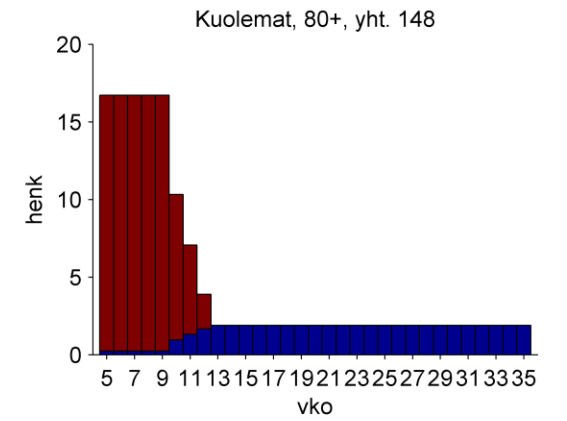
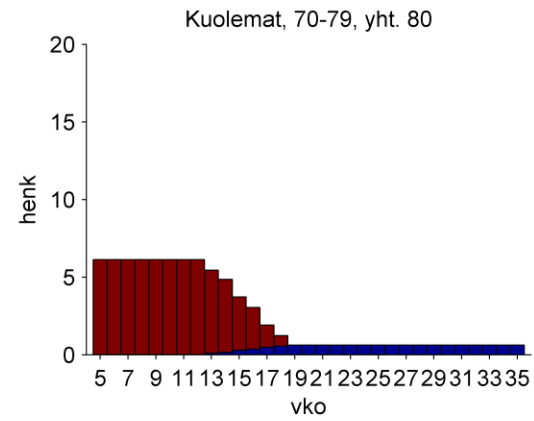
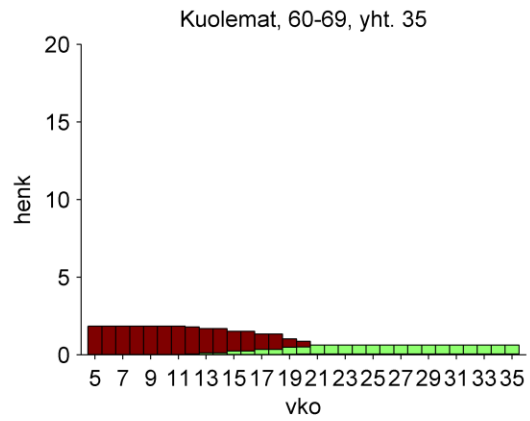
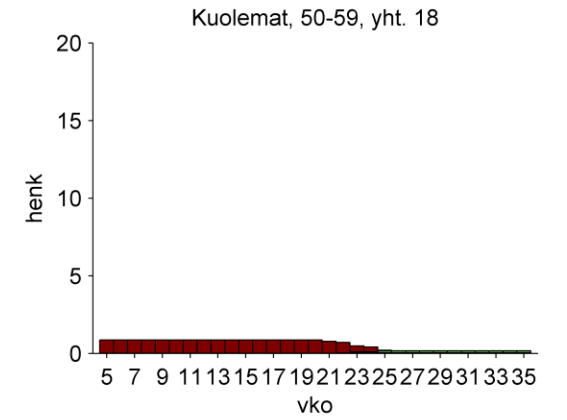
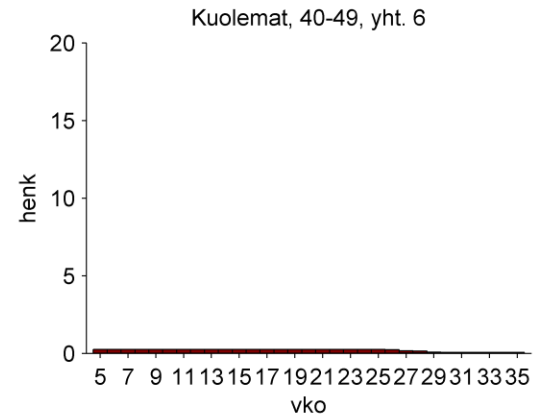
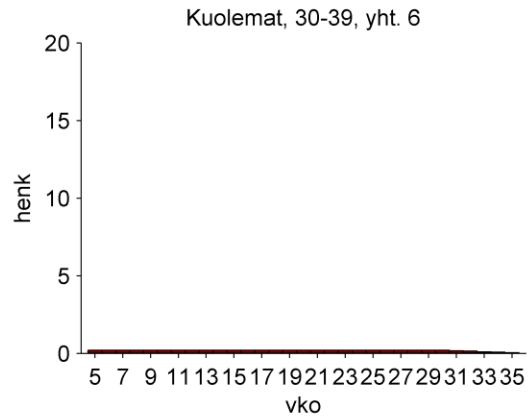
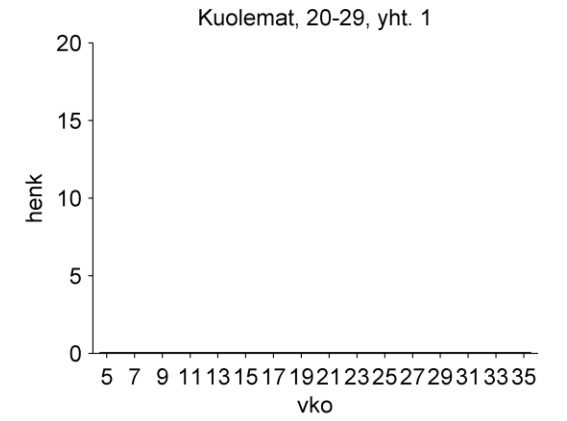
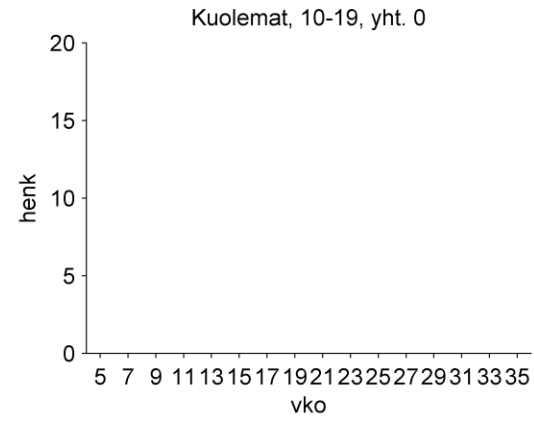
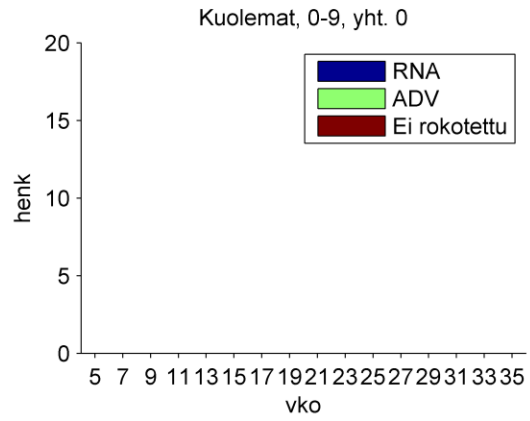
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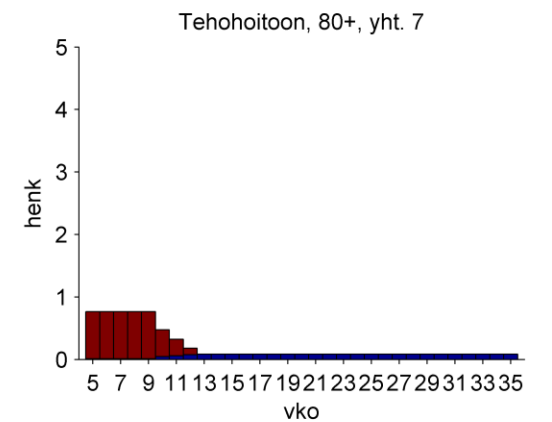
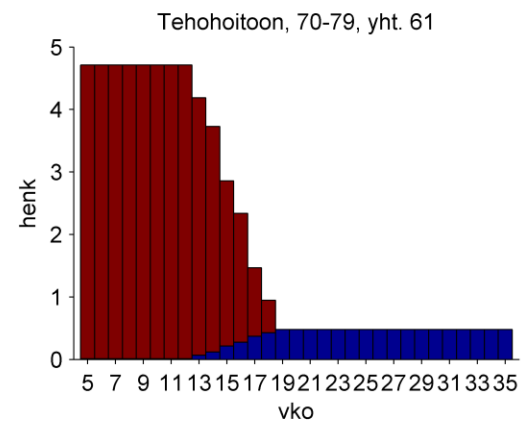
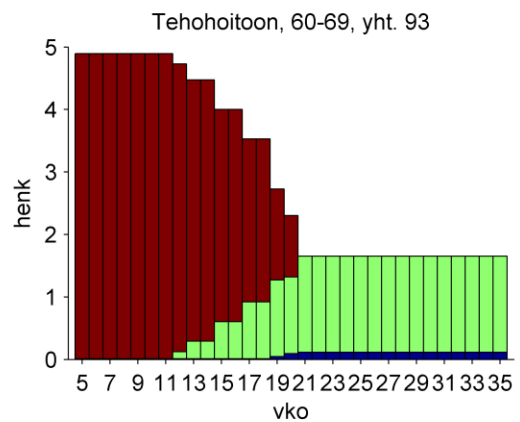
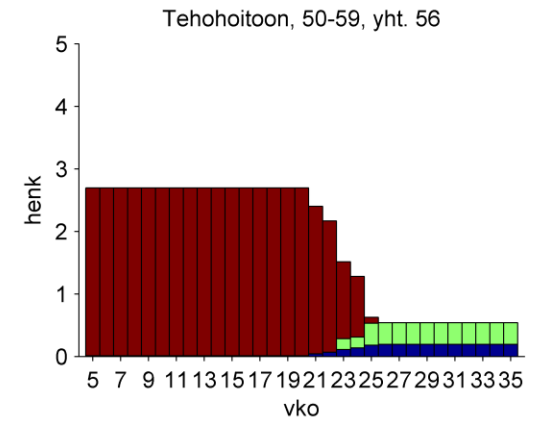
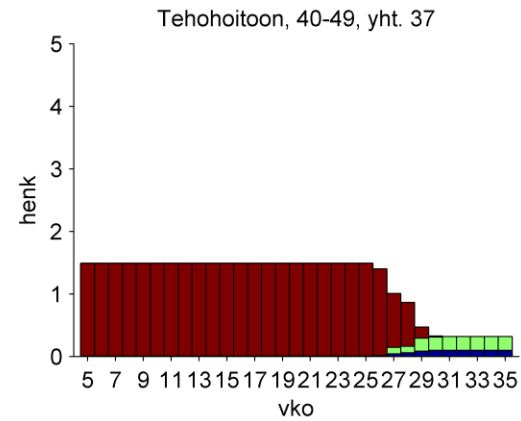
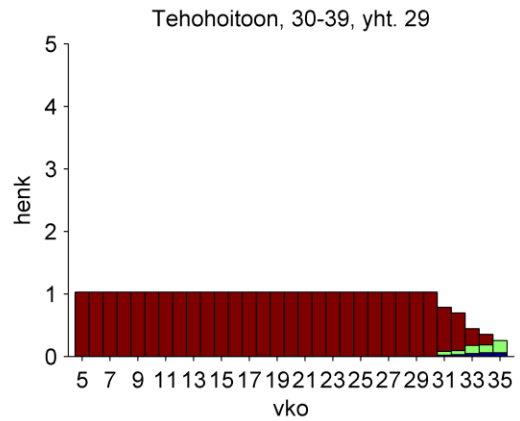
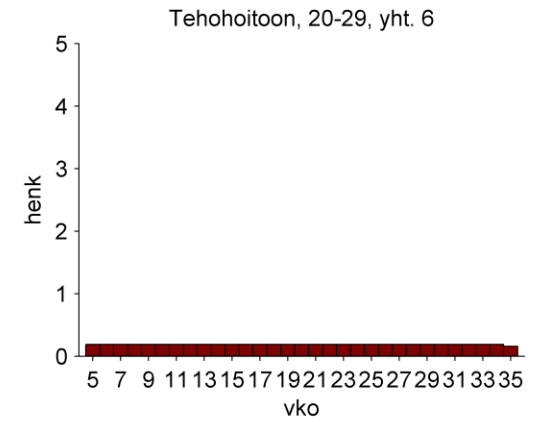
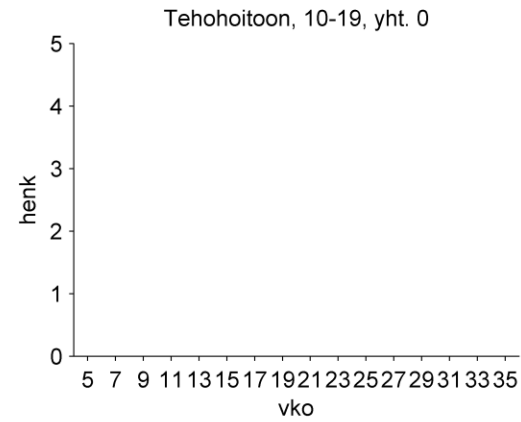
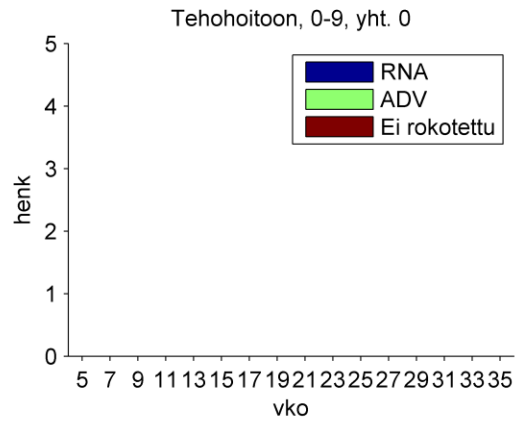
# A



C



C



C

