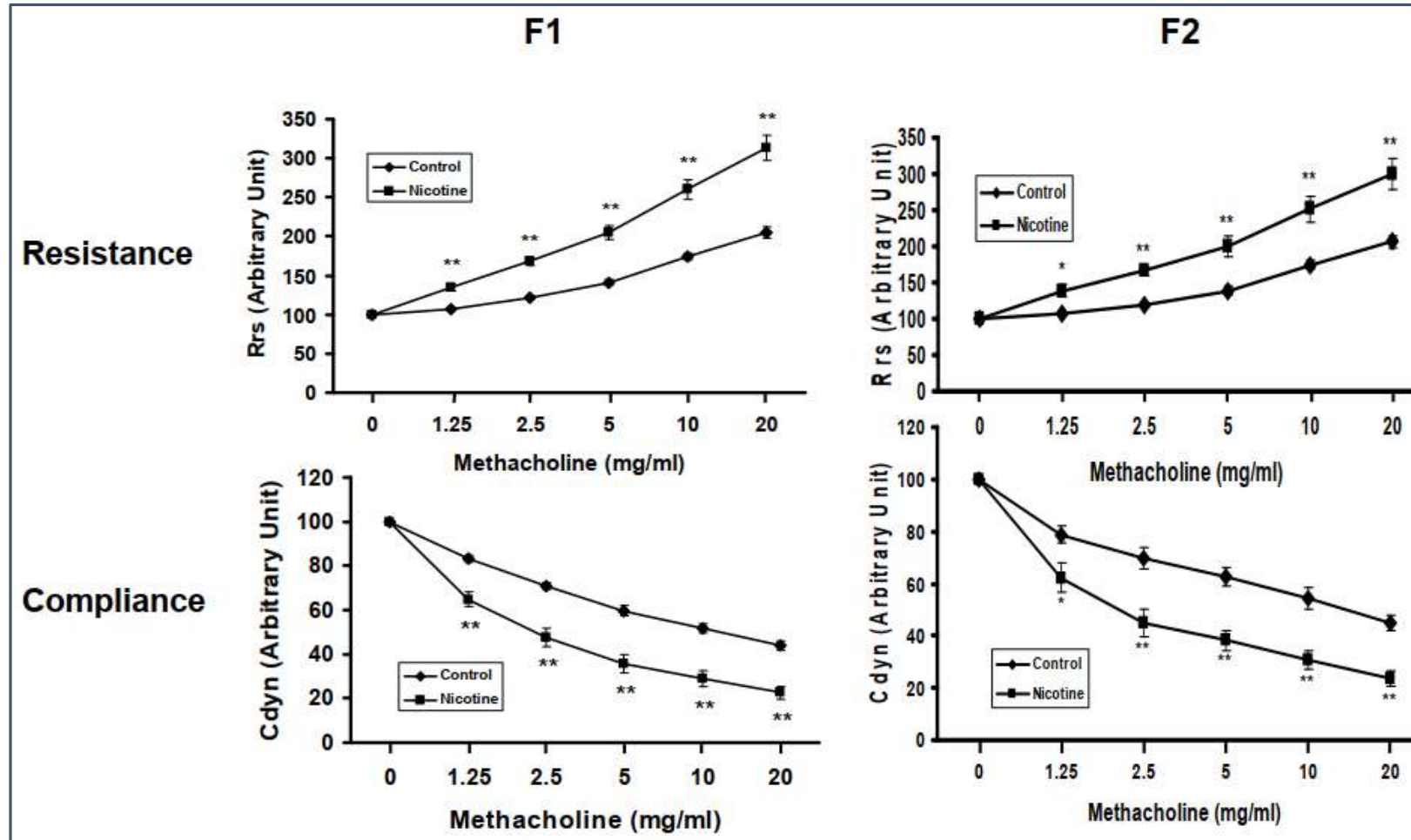


Η επίδραση των συνθηκών και του τρόπου ζωής στην ανάπτυξη αλλεργιών και άσθματος

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Παιδοπνευμονολογική – Παιδοαλλεργιολογική Μονάδα,
Γ' Παιδιατρική Κλινική Πανεπιστημίου Αθηνών,
ΠΓΝ «Αττικών»

Perinatal nicotine exposure induces asthma in second generation offspring

Rehan VK et al. BMC Med. 2012



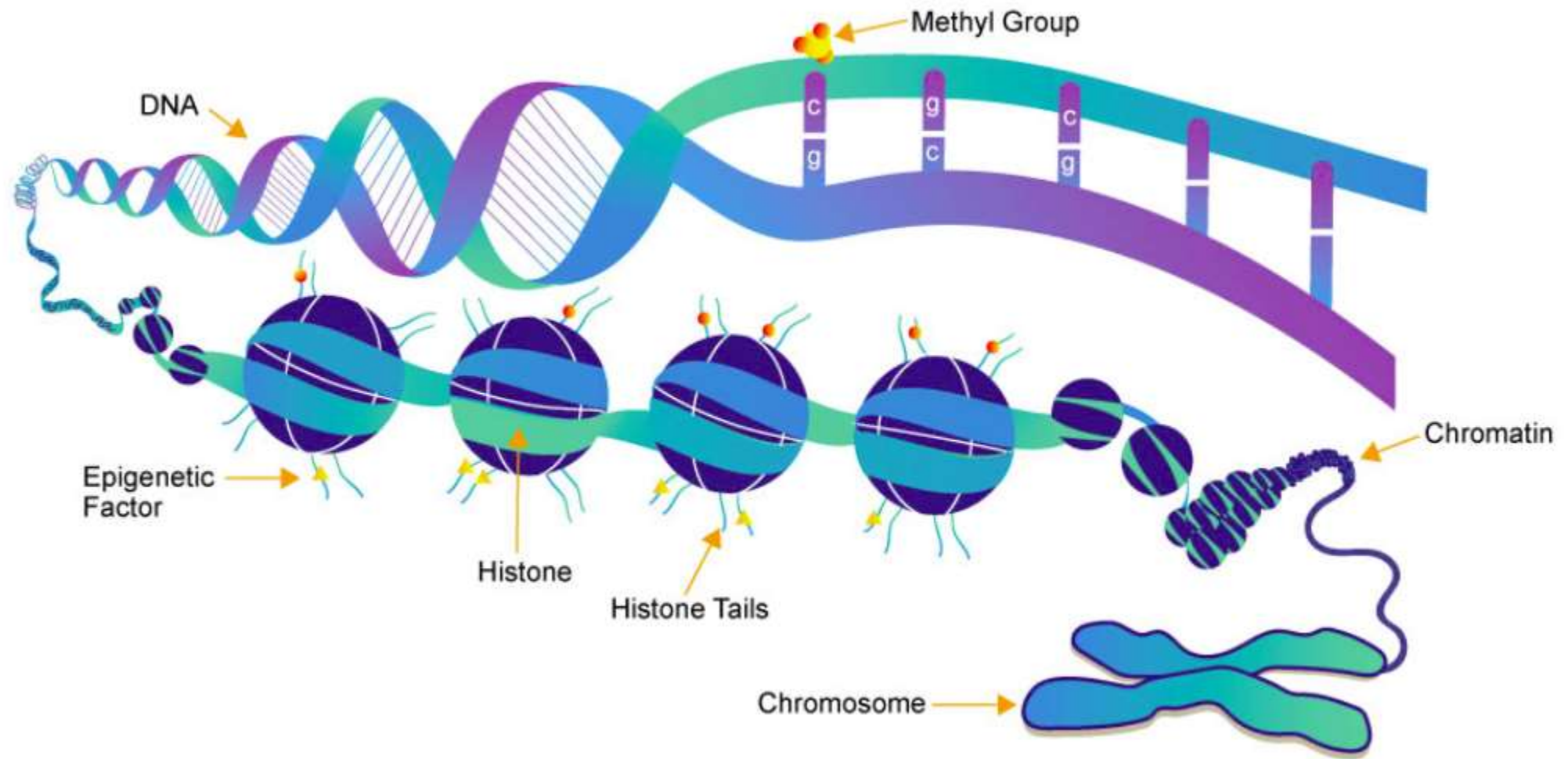
Grandmaternal smoking increases asthma risk in grandchildren: A nationwide Swedish cohort.

Lodge CJ et al. Clin Exp Allergy. 2017

44.583 grandmothers → 46.197 mothers → 66.271 grandchildren

	N	GM- & M-	GM+ M-	GM- M+	GM+ M+
				Odds Ratio & 95% CI, [p] (n/N)	
Early Transient (0-3years)	10456	1 (121/3,395)	0.95 (0.71-1.29) [0.762] (70/2,033)	1.27 (0.97,1.66) [0.081](105/2,267)	1.38 (1.07,1.78) [0.014](141/2,761)
Early persistent (Both times)	10762	1 (197/3,471)	1.45 (1.17,1.79) [0.001](172/2,135)	1.10 (0.88,1.38) [0.392](145/2,307)	1.43 (1.17,1.75) [0.001](229/2,849)
Late Onset (3-6years)	10774	1 (257/3,531)	0.93 (0.75,1.16) [0.530](144/1,963)	0.92 (0.75,1.14) [0.445](155/2,317)	0.98 (0.80,1.19) [0.815](199/2,819)

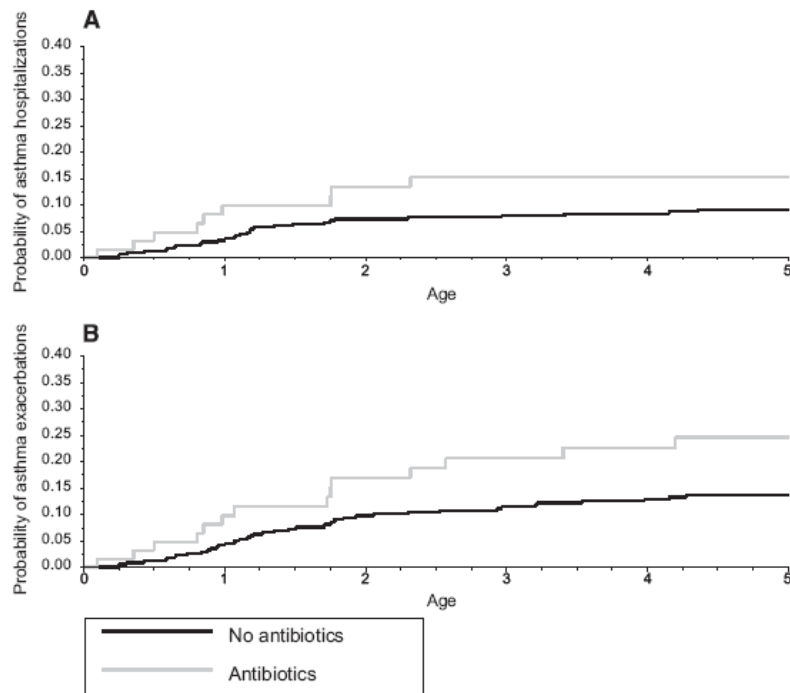
Epigenetic modifications



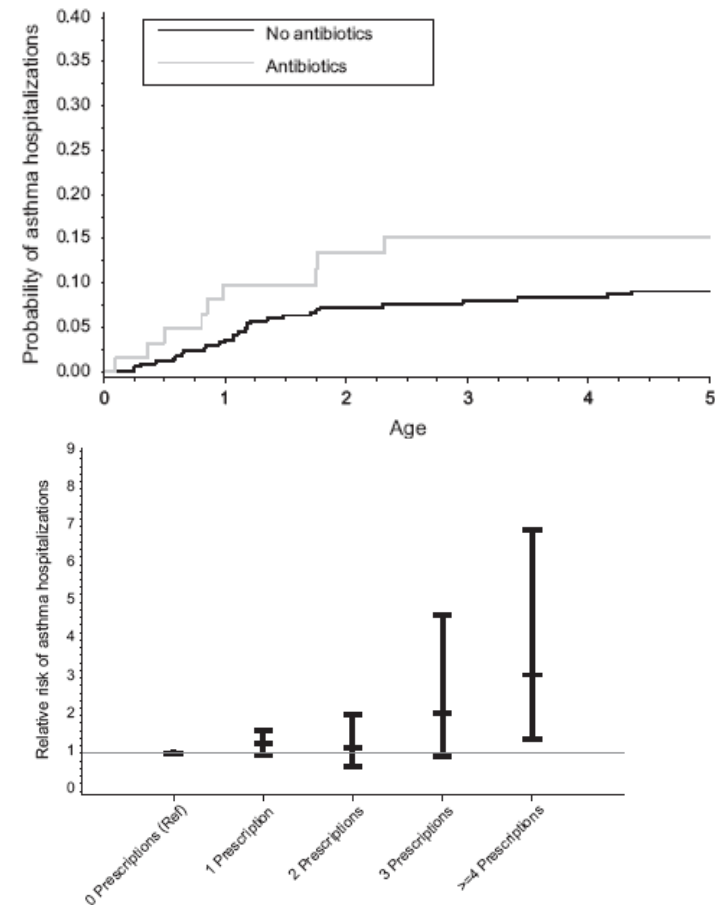
Use of Antibiotics during Pregnancy Increases the Risk of Asthma in Early Childhood

Stensballe LG et al. *J Pediatr* 2012

- COPSAC birth cohort study
- Μητέρες με άσθμα
- Αντιβιοτικά στο 3ο τρίμηνο



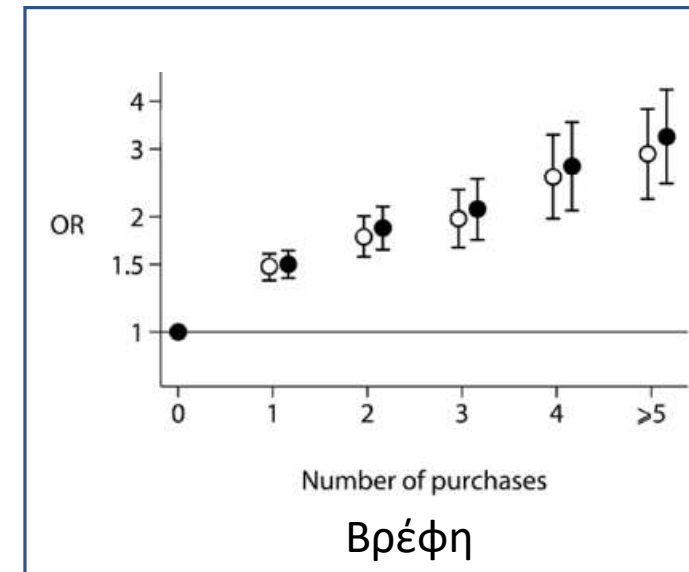
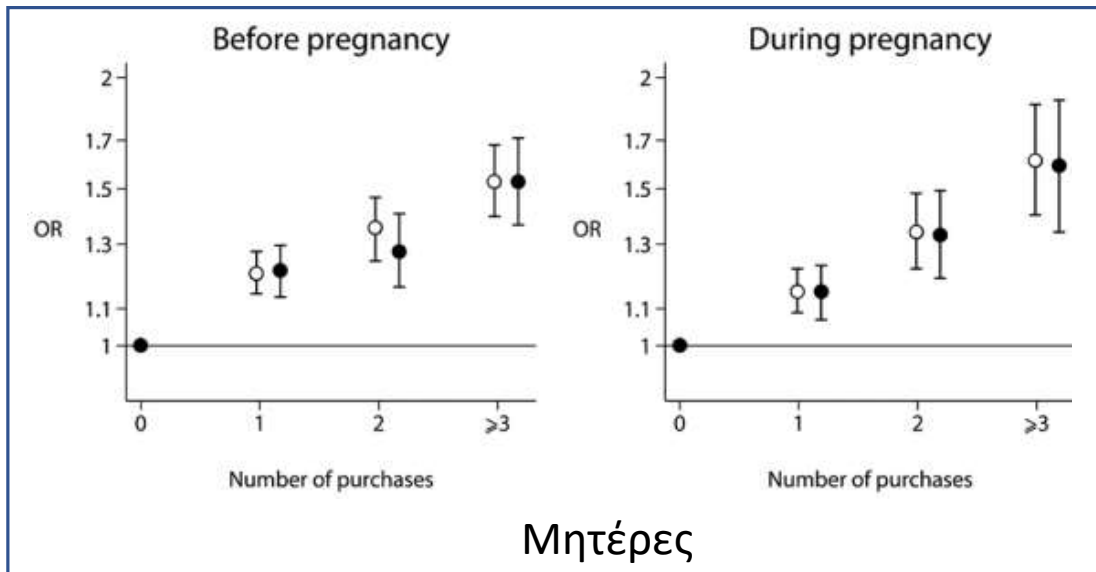
- DNBC birth cohort study
- Αντιβιοτικά στην εγκυμοσύνη



Mother's and offspring's use of antibiotics and infant allergy to cow's milk

Metsälä J et al. Epidemiology 2013

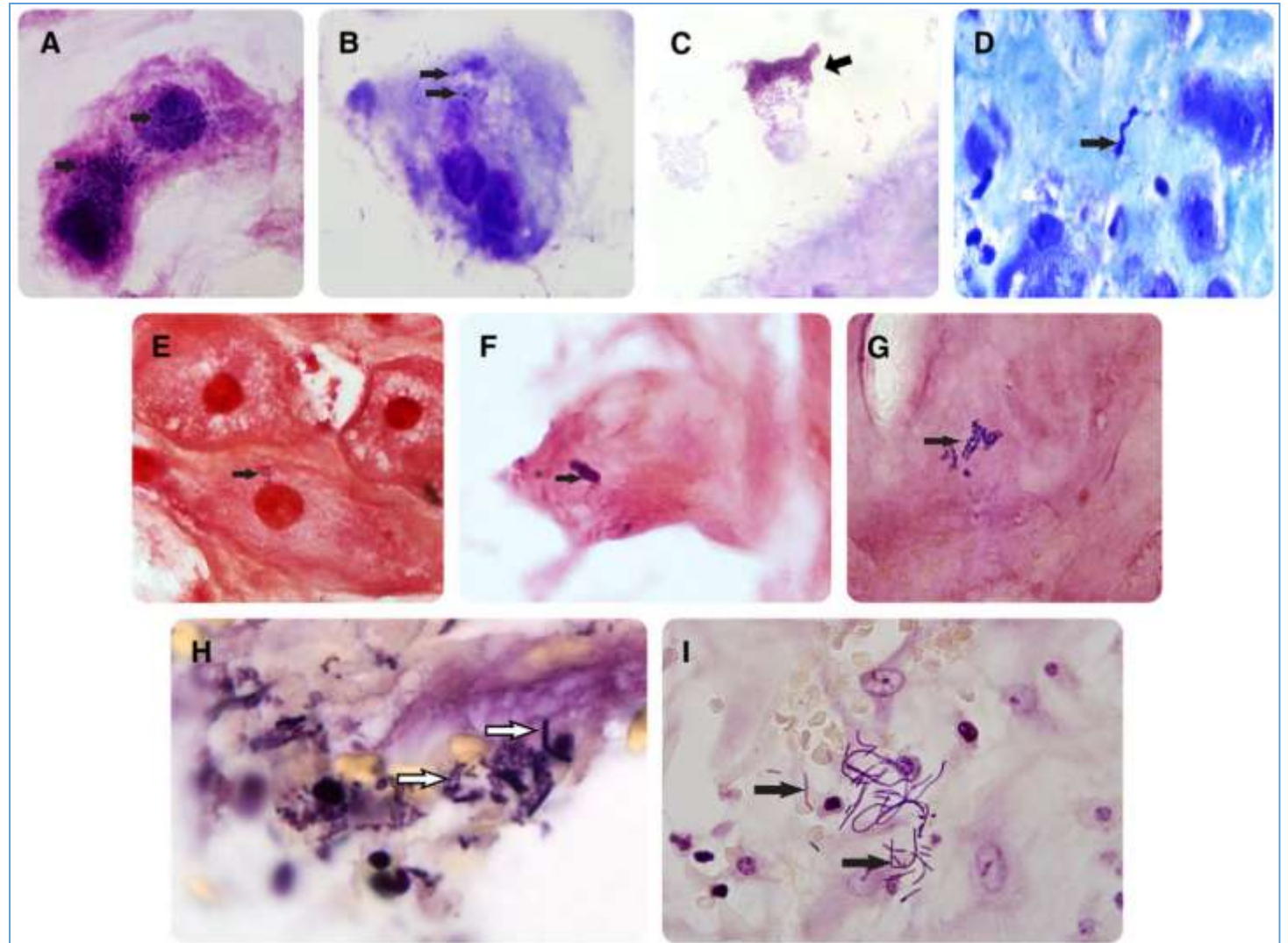
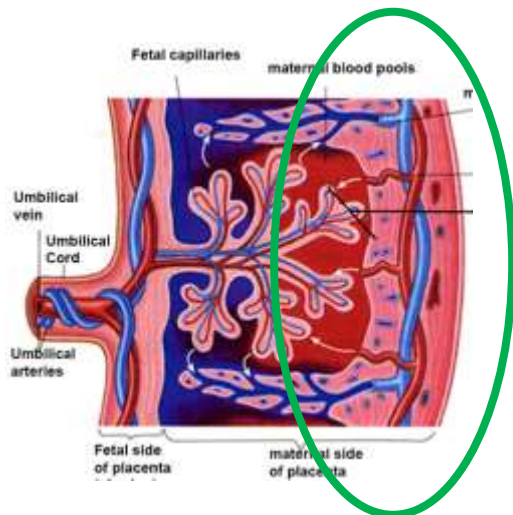
- Μελέτη ασθενών-μαρτύρων (1:1)
- 15.672 με αλλεργία στο γάλα
- Λήψη αντιβιοτικών
 - 1 έτος πριν εγκυμοσύνη
 - Κατά την εγκυμοσύνη
 - Πριν εκδήλωση αλλεργίας στο γάλα



Identification of intracellular bacteria in the basal plate of the human placenta in term and preterm gestations.

Stout M. et al. Am J Obstet Gynecol 2013

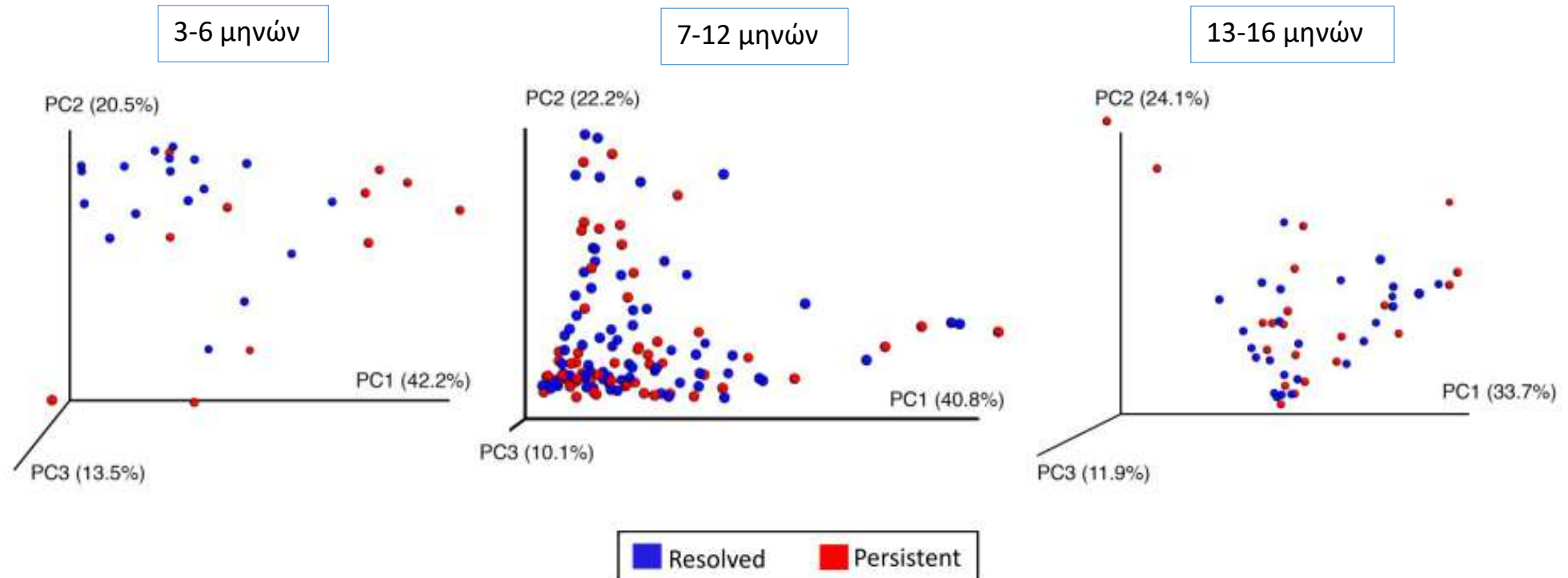
Intracellular bacteria in placental basal plate



Early-life gut microbiome composition and milk allergy resolution

Bunyavanich S. et al. J Allergy Clin Immunol 2016

- 226 βρέφη με αλλεργία σε ΓΑ
- 3 ομάδες ανάλογα με ηλικία συλλογής κοπράνων
 - 3-6 μηνών
 - 7-12 μηνών
 - 13-16 μηνών



Association of Changes in Air Quality With Incident Asthma in Children in California, 1993-2014.

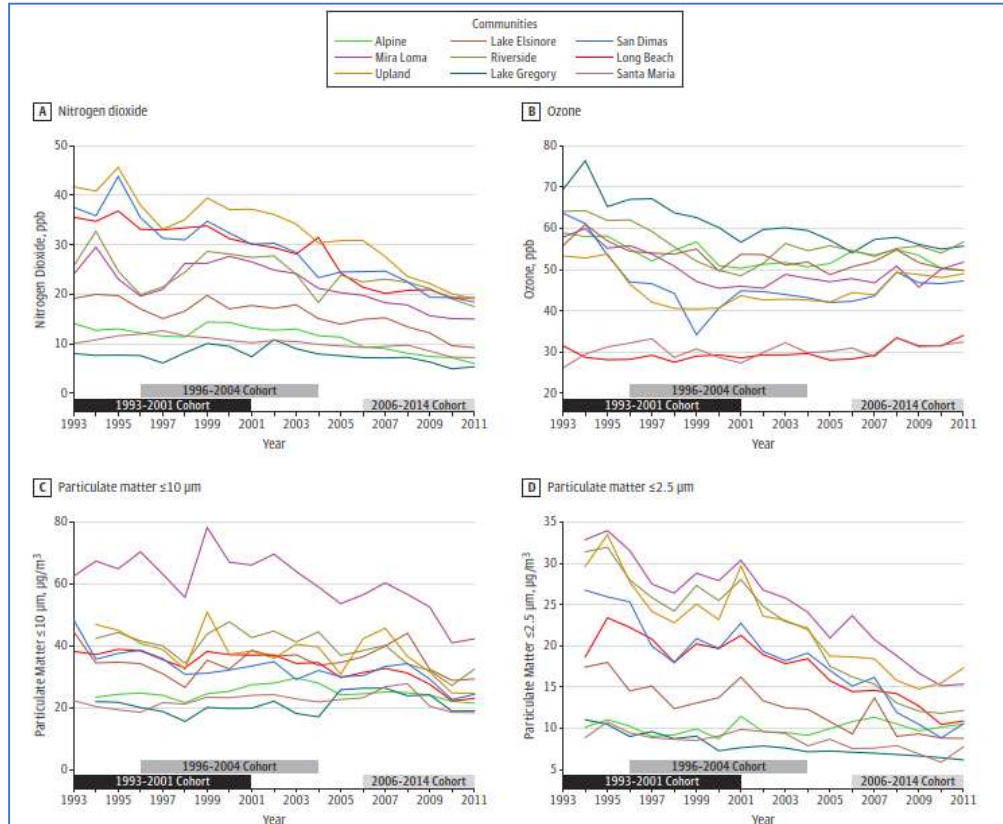
Garcia E et al. JAMA. 2019

- 4140 παιδιά 9-10 ετών, χωρίς ιστορικό άσθματος, από 9 διαφορετικές πόλεις
- Παρακολούθηση για 8 χρόνια
- Τρεις διαδοχικές ομάδες:
 - 1993-2001
 - 1996-2004
 - 2006-2014

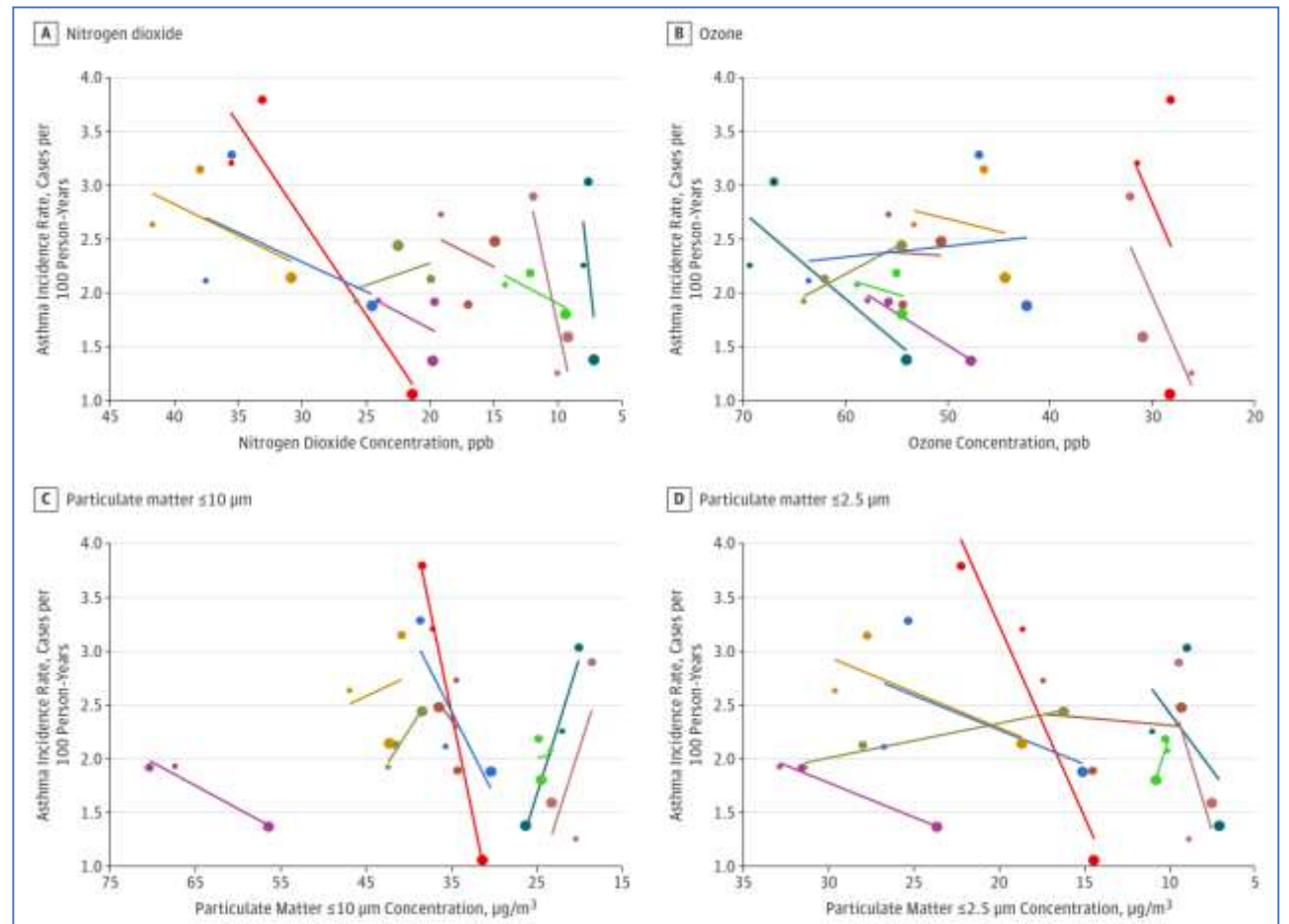
- Έκθεση σε:
 - Διοξείδιο του αζώτου
 - Όζον
 - PM10, PM2.5

- Κύρια έκβαση: επίπτωση άσθματος

Annual Mean Air Pollutant Concentration During the Follow-up Period in 9 Communities

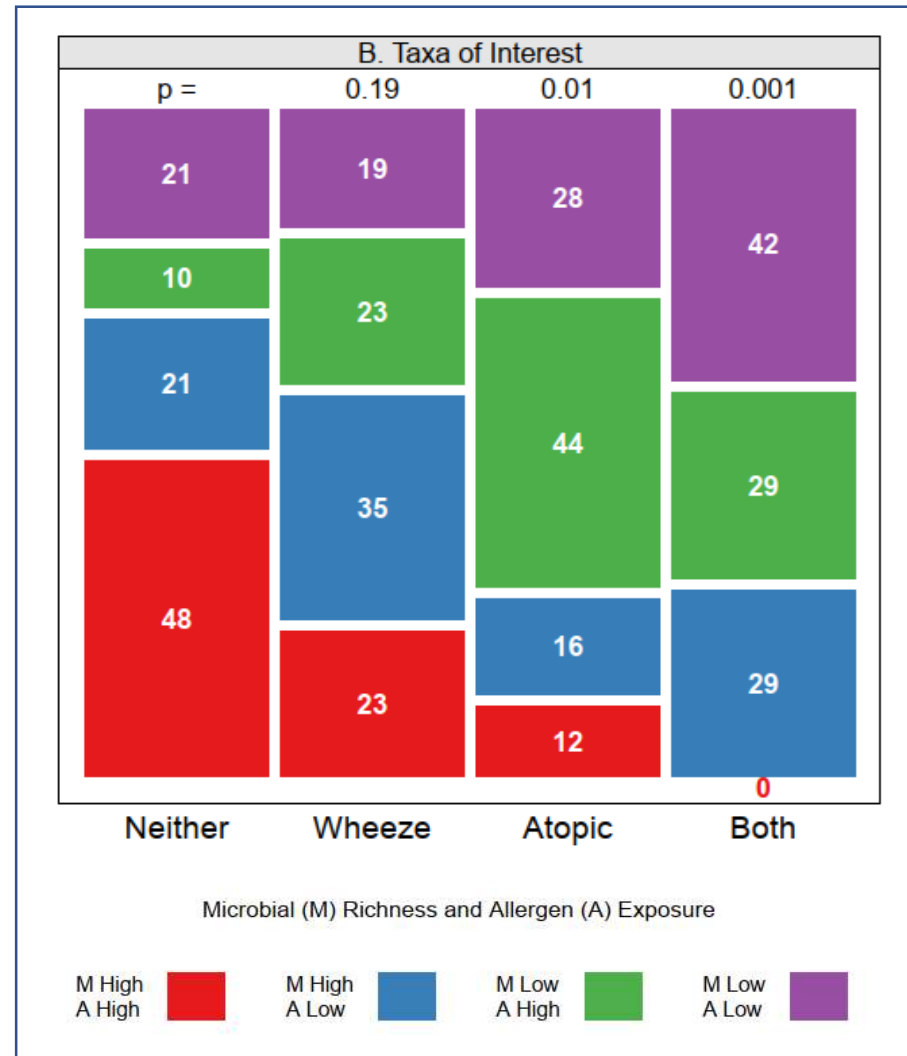


Asthma Incidence Rates and Air Pollutant Concentrations in 9 Communities



Effects of early-life exposure to allergens and bacteria on recurrent wheeze and atopy in urban children

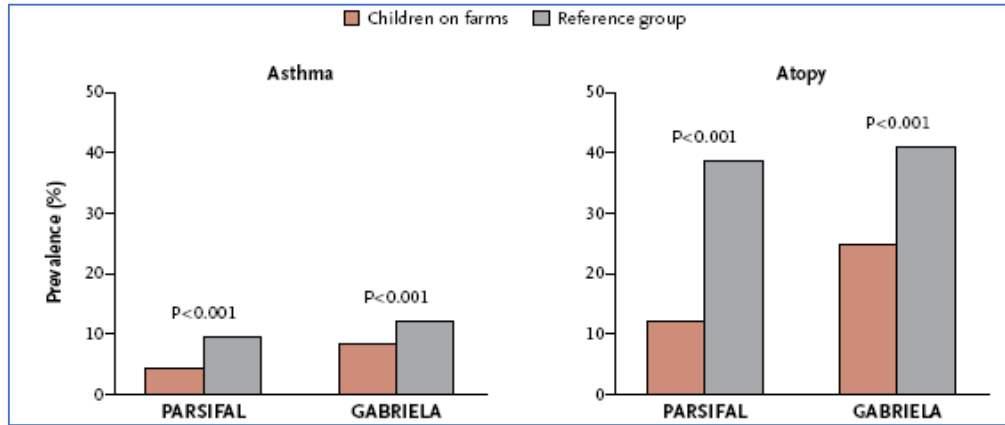
Lynch S et al. *J Allergy Clin Immunol* 2014



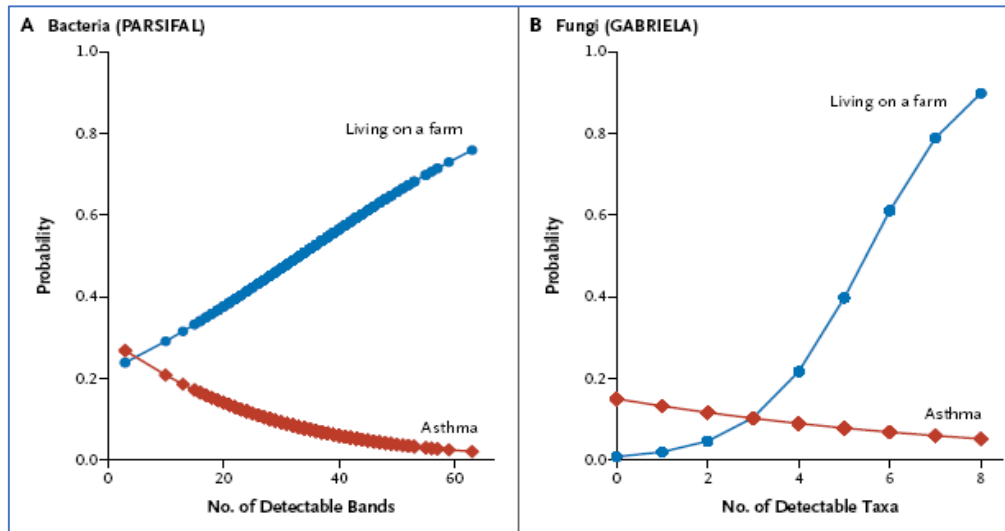
Exposure to Environmental Microorganisms and Childhood Asthma

Markus JE et al. *N Engl J Med* 2011

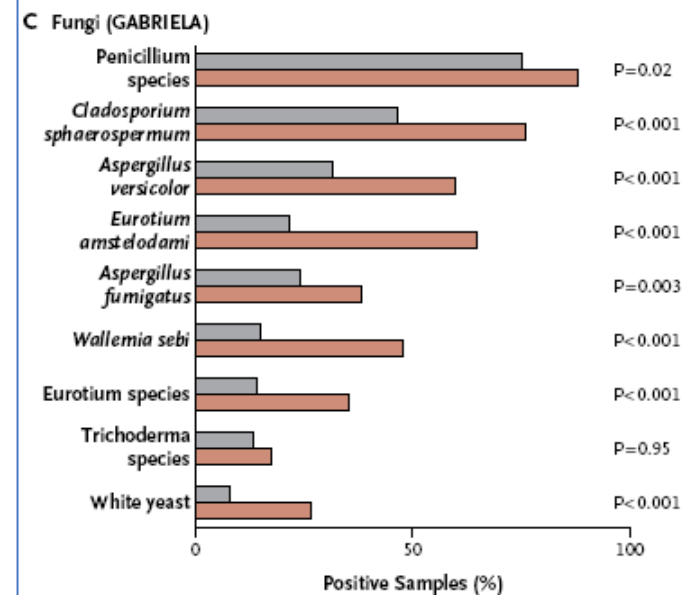
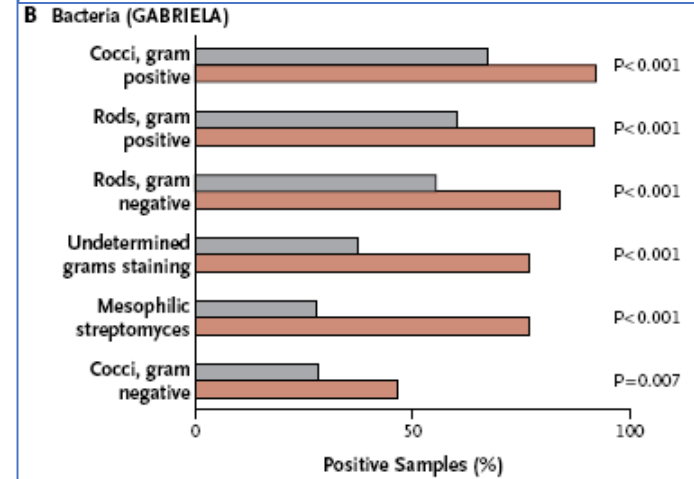
Prevalence of Asthma and Atopy



Microbial Exposure and the Probability of Asthma



Microorganisms in Dust Samples



Exposure to furry pets and the risk of asthma and allergic rhinitis: a meta-analysis.

Takkouche B et al. Allergy. 2008

- 32 μελέτες από 1996-2007
- Έκθεση σε γάτα: μικρή ελάττωση κινδύνου εκδήλωσης άσθματος
 - RR: 0.72 (95% CI 0.55–0.93)
- Έκθεση σε σκύλο: μικρή αύξηση κινδύνου εκδήλωσης άσθματος
 - RR: 1.14 (95% CI 1.01–1.29)

Does pet ownership in infancy lead to asthma or allergy at school age?

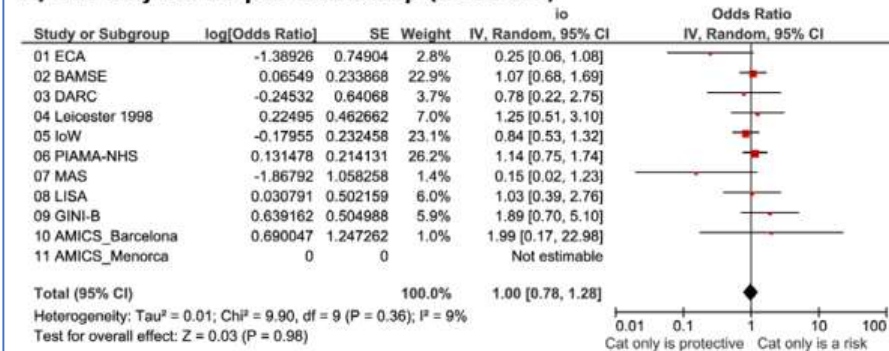
Pooled analysis of individual participant data from 11 European birth cohorts.

Lødrup Carlsen KC et al. PLoS One. 2012

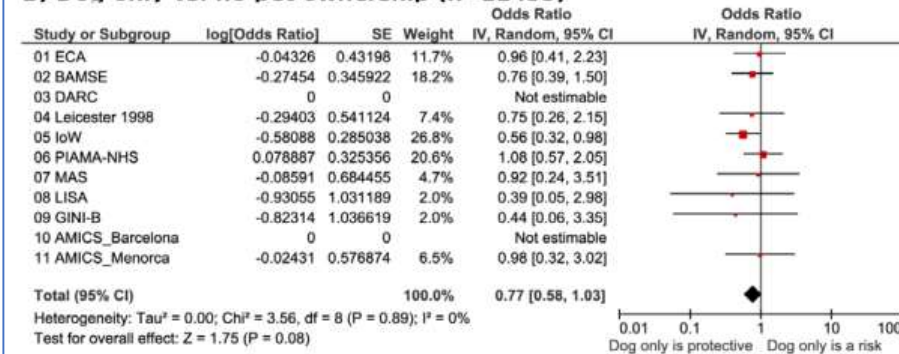
- Δεδομένα από 11 Ευρωπαϊκές νεογνικές κοόρτες, >22.000 παιδιά
- Κατοικίδιο (σκύλοι, γάτες, πτηνά, τρωκτικά ή συνδυασμοί) έως την ηλικία των 2 ετών
- Ανάπτυξη άσθματος ή αλλεργικής ρινίτιδας στην ηλικία των 6-10 ετών

Άσθμα

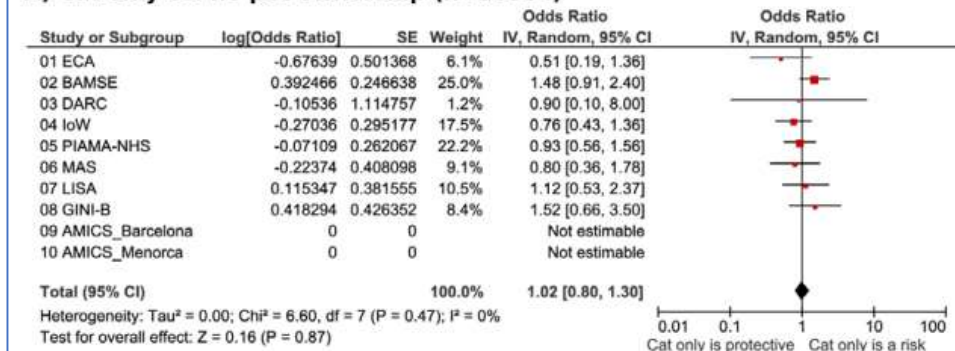
A) Cat only vs. no pet ownership (n=11489)



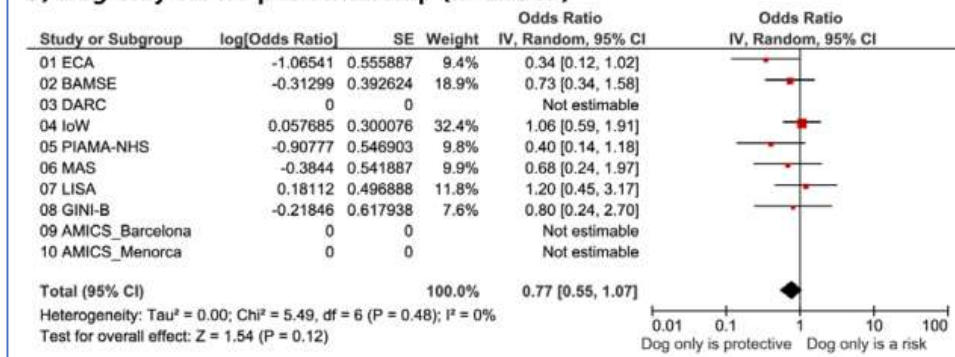
B) Dog only vs. no pet ownership (n=11433)



A) Cat only vs. no pet ownership (n=10384)



B) Dog only vs. no pet ownership (n=10107)



Άλλεργική ρινίτιδα