



6° TAVOLA ROTONDA COMITATO SCIENTIFICO AIC

Milano – 7 novembre 2024

Starhotels Business Palace, Via Privata Pietro Gaggia, 3

Dr. Mauro Congia

Gastroenterologia Pediatrica

Clinica Pediatrica e Malattie Rare

Ospedale Pediatrico Microcitemico A. Cao

ASL8Cagliari

Pediatri partecipanti: 13

Province	Età					Arruolamenti previsti	Arruolamenti mancanti
	2	6	10	Fuori Fascia	Totale		
Cagliari	15	21	23	11	70	250	180
Sud Sardegna	11	19	26	10	66	30	+ 36
Sassari	22	33	47	18	120	150	30
Nuoro	6	18	6	7	37	40	3
Oristano	6	8	15	1	30	30	0
Tot. Sardegna	276			47	323	500	177

I kit inviati sono stati 500

- Qualità campioni di siero effettuati alla data del 9 ottobre 2024:

OTTOBRE	Assente	Insufficiente	Parzialmente sufficiente	Adeguati	Totali analizzati
<i>Campania</i>	143	5	86	422	656
<i>Marche</i>	27	5	36	224	292
<i>Lombardia</i>	228	13	144	2357	2742
<i>Sardegna</i>	42	1	19	252	314
TOTALE	455	24	285	3255	4019

%
adeguati

64.3

76.7

85.9

80.2

Totale campioni da ripetere per Sardegna (siero assente + insufficiente): 43

Statistics

Pediatri partecipanti:13

Inviati al laboratorio 362

ancora da analizzare 62

compilati dal laboratorio 300

Positivi allert T1D 2

Positivi allert CD 11 (7 bambine/5 bambini)=1.75%

Negativo allert CD 289

D1Ce Preliminary Results

Inviati al centro di screening	358	Frequenza
Da inviare al laboratorio	0	
Inviati al laboratorio	62	
Compilato dal laboratorio	300	
Allert diabete	2	
Allert celiachia	11	
Valori ELEVATI	10	10/300 (3.3%)

Centro per la conferma delle positività

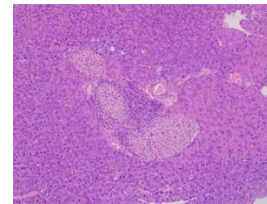
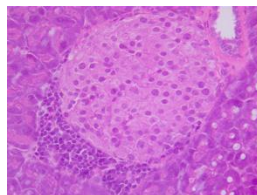
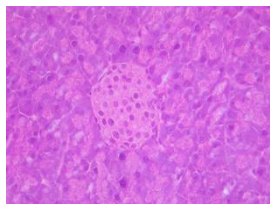
- Ospedale Microcitemico di Cagliari
- Ho consigliato ai colleghi pediatri di saltare il CUP (prime visite) richiedendo una visita di controllo. In modo da utilizzare le agende interne.
- Sono stati rideterminati le IgA totali, l'antitrasglutaminasi con i seguenti cut off < 7 negativa, 7-10 dubbia > 10 positiva, e gli EMA (positivo o negativo)

Dati verificati dal centro

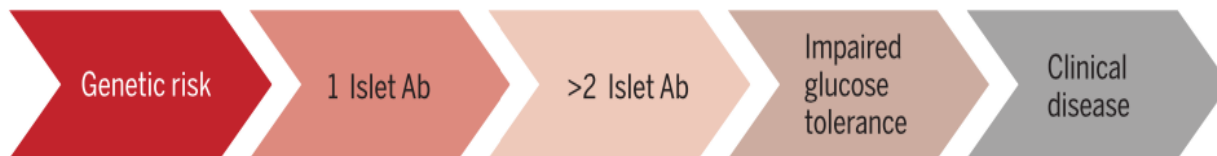
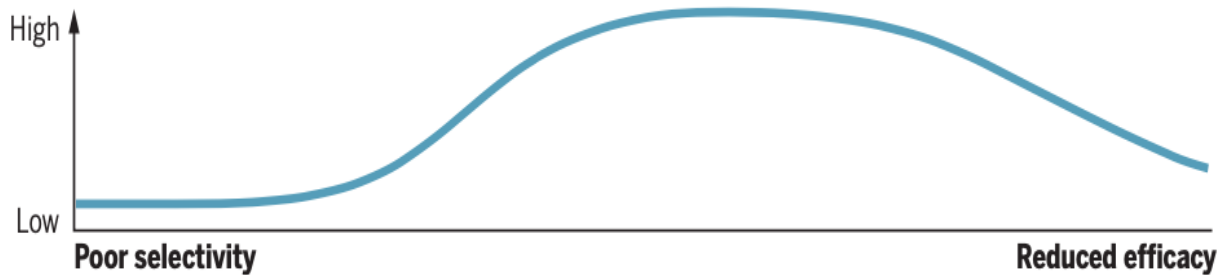
SAR451DA	1	272.83	/	6,10	Valore TtG IgA > 10 volte VN, confermato da EMA+ Diagnosi senza biopsia
SAR683RK	2	165.568	DQ2 omo	6,11	TtG-IgA 9.6 (borderline) EMA borderline
SAR633QR	3	123.758	/	6,8	negativa la TtG
SAR268WU	4	330.37	/	10,5	Residenza a Sassari. Ho consigliato di ripetere l'esame a domicilio
SAR185RB	5	109.774	DQ8	6	negativa la TtG
SAR425TX	6	93.364	DQ2 ete	10,3	negativa la TtG
SAR232RP	7	329.292	DQ2 ete	4	Valore TtG IgA > 10 volte VN, confermato da EMA+ Diagnosi senza biopsia
SAR463GO	8	313.521	DQ2 ete	10,4	Valore TtG IgA > 10 volte VN, confermato da EMA+ Diagnosi senza biopsia
SAR576RK	9	0.249		9,11	negativo HLA
SAR211VV	10	177.46	DQ2 ete	10,4	Valore TtG IgA > 10 volte VN, confermato da EMA+ Diagnosi senza biopsia
SAR885AE	11	173.159	DQ8	10,4	Bassi valori TtG-IgA (30) biopsia programmata per il 18/10/24. CD confermata con un Marsh 3b

Conclusioni preliminari

- La frequenza di mancata conferma dei positivi da parte del centro è stata di 4/10 (40%)
- La frequenza di veri positivi confermati in seconda istanza con e senza biopsia dal centro è di 5/300 (1.6%)
- Resta da verificare un solo paziente che per via della distanza (SS) ha preferito eseguire il controllo presso il proprio domicilio



Window of opportunity for treatment



Stage 1

Stage 2

Stage 3

HLA Genotyping in Children With Celiac Disease Allows to Establish the Risk of Developing Type 1 Diabetes

Enrico Schirru, BSc¹, Rossano Rossino, BSc^{2,3}, Daniela Diana, BSc⁴, Rita D. Jores, MD, PhD⁴, Davide Baldera, BSc¹, Sandro Muntoni, MD⁵, Claudia Spiga, MD⁶, Carlo Ripoli, MD⁶, Maria R. Ricciardi, MD⁶, Francesco Cucca, MD⁷ and Mauro Congia, MD²

Table 1. Patients with CD-T1D, CD, and T1D and controls participating in the study

Diseases	No. of patients	Females	Males	Ratio of females/males
CD-T1D	76	43	33	1.3
CD	746	497	249	2
T1D	1,064	416	648	0.64
Controls	627	308	319	0.97

CD-T1D, celiac disease type 1 diabetes.

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Table 3. Frequencies of low- and high-risk HLA genotypes associated with the development of T1D in patients with CD

High-risk and low-risk HLA genotypes	HLA genotypes	CD (n = 746)	CD-T1D (n = 76)	Percentage of T1D in CD	T1D onset before or at the same time of CD ^b	T1D onset after CD ^b
High-risk ^a	DQ2.5/DQ8	57	30	34.5%	22	8
	DQ2.5/DQ2.5	153	29	15.9%	20	9
	DQ2.5/DQ2.3	13	3	18.8%	2	1
Low-risk	Other HLA genotypes	523	14	2.6%	10	4

CD-T1D, celiac disease type 1 diabetes; HLA, human leukocyte antigen.

^aThe group of high-risk HLA genotypes was further subdivided by each individual susceptibility HLA genotype for T1D.

^bThe last 2 columns report the number of patients who developed T1D before and after CD.

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Table 4. Distribution of patients with CD-T1D according to the age of onset of CD

Age of onset of CD expressed in yr	All ages	<10.64 ^a	<8.16 ^a	<5.67 ^a	<5.09 ^a
CD-T1D	76	70	54	30	21
T1D onset after CD	22	19	19	12	10
Percentage of T1D onset after CD	28.9%	27.1%	35.2%	40.0%	47.6%

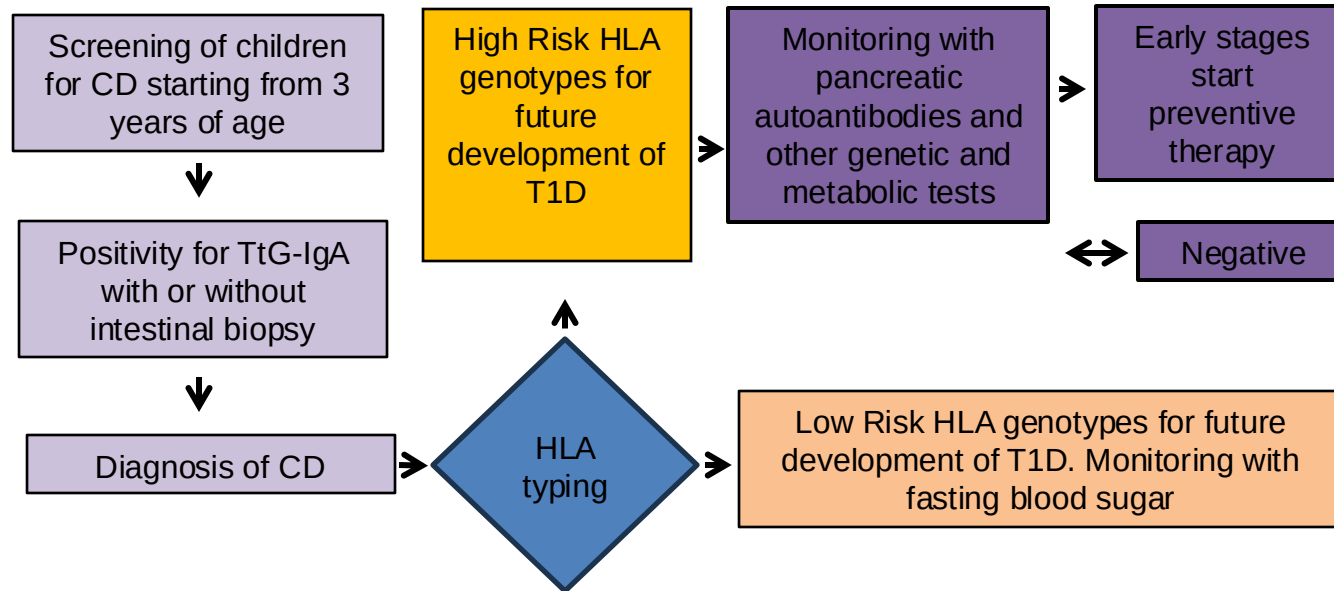
CD-T1D, celiac disease type 1 diabetes.

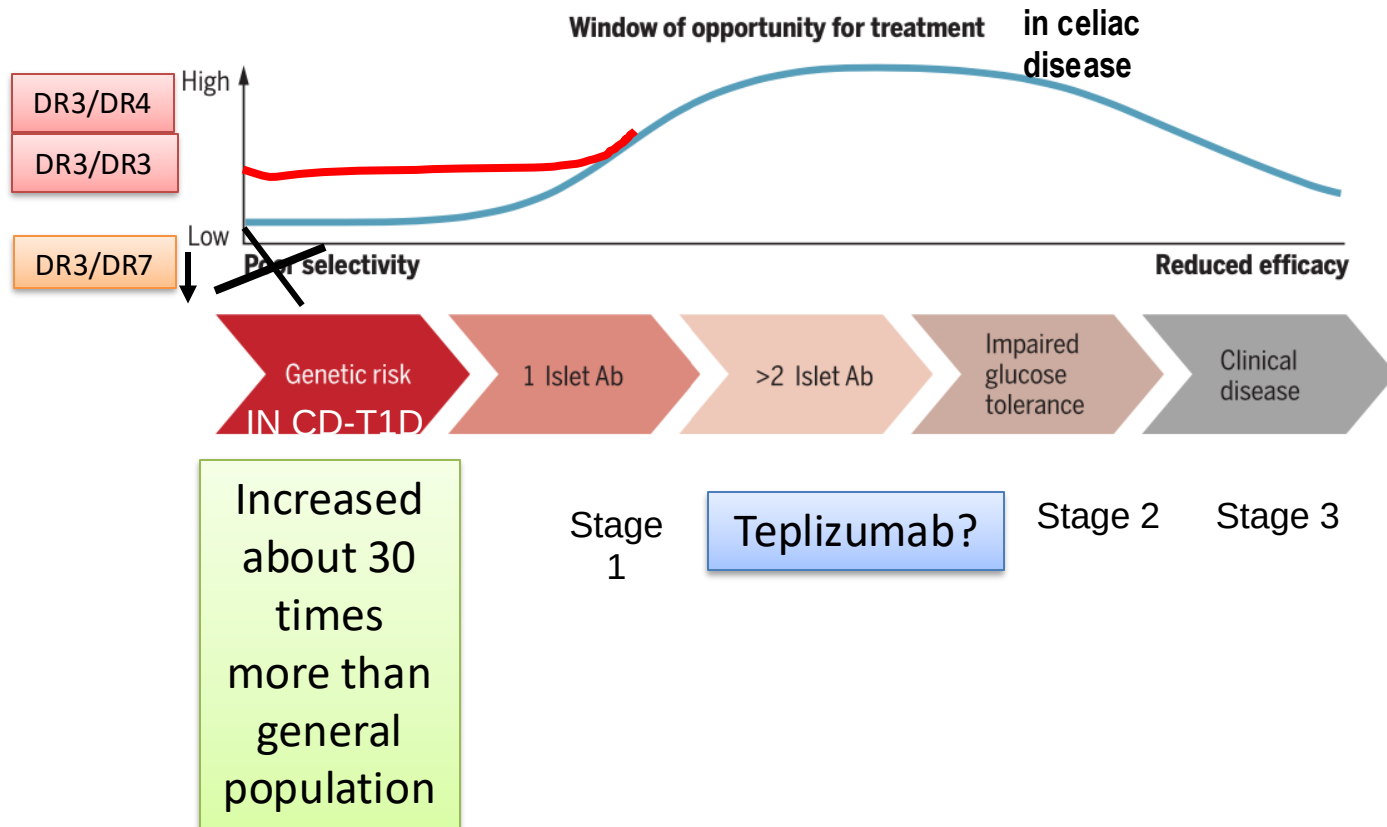
^aFor each age group, the total number of patients with CD-T1D, the number, and the percentage of those who developed T1D after CD onset are reported.

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HLA typing may identify the risk to developing T1D in CD patients





**Grazie per
l'attenzione!**

α -Gliadin

Sequence involved in activation of a nonadaptive immune response

Peptide (33-mer) resistant to enzymatic digestion

Peptide involved in HLA class I binding

Peptide involved in CXCR3 binding and zonulin secretion

Peptide well recognized by HLA – DQ8

	MVRVPVPQLQPQNPSQQQPQEQVPLVQQQQ	
31-55	FPGQQQPFPPQQPYQPQPFPSQQPYLQLQP	57-89
	FPQPQLPYQPQLPYPPQLPYQPQPFRRPQQ	
	PYPQSQPQYSQPQQPISQQQQQQQQQQQQ	
124-139	KQQQQQQQQQILQQILQQQLIPCRDVLQQH	Q=30%
160-179	SIAYGSSQVLQQSTYQLVQQQLCCQQLWQIPE	P=15%
	QSRCQAIHNVVHAILHQQQQQQQQQQQQQP	
	LSQVSFQQPQQQYPSGQGSFQPSQQNPQAQ	
	GSVQPQQLPQFEEIRNLALETLPAMCNVYIPP	
	YCTIAPVGIFGTNYR	

tTG riconosce la sequenza PXL, residui P prevengono la completa digestione enz.





**“Wellness” in eating is on the rise not only for people
but also for pets**

news-monoproteici-wet_ita



Monge
MONOPROTEIN

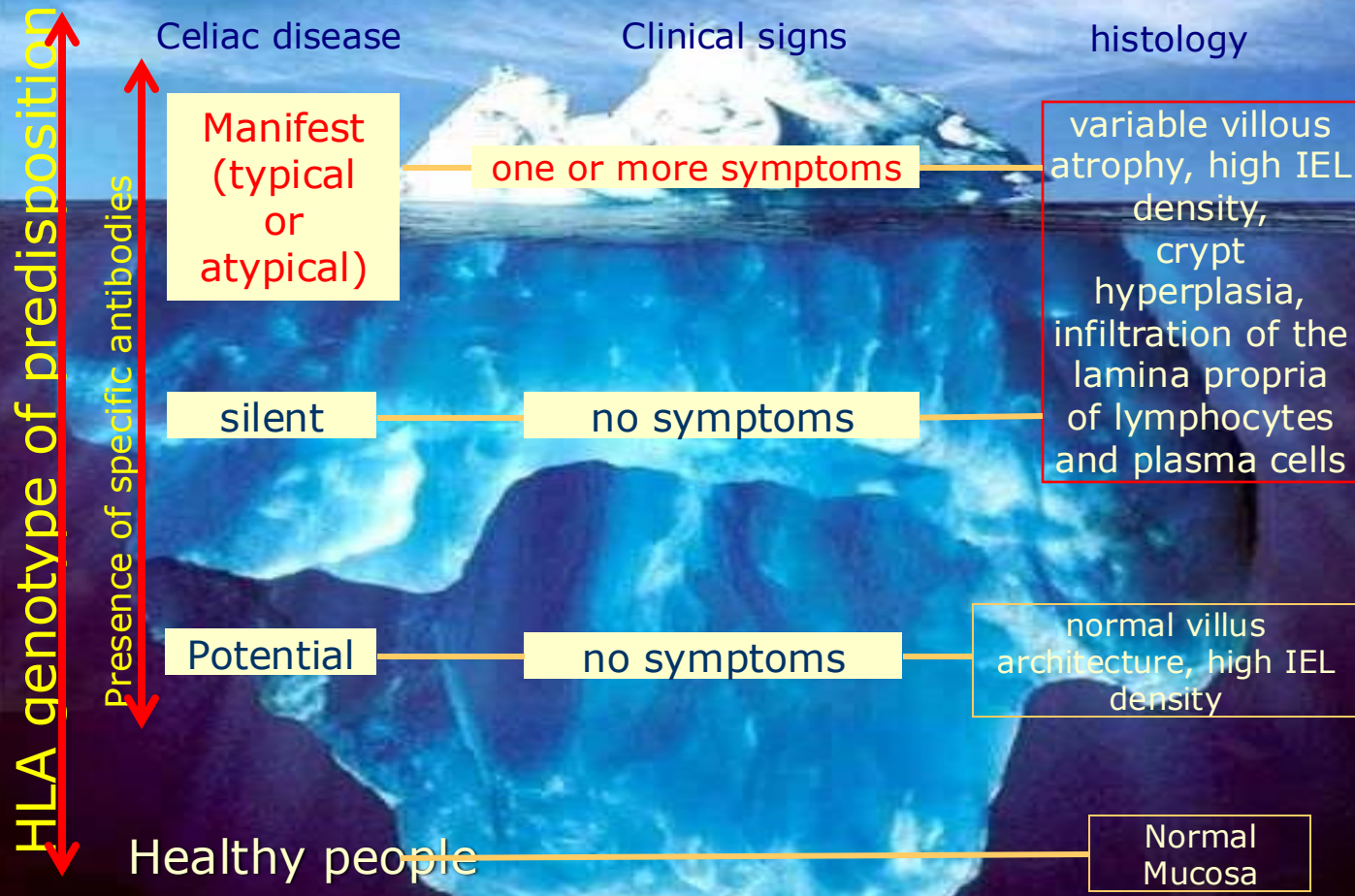
La nuova linea
di prodotti umidi
**per il tuo cane
ed il tuo gatto**



NO CRUELTY TEST

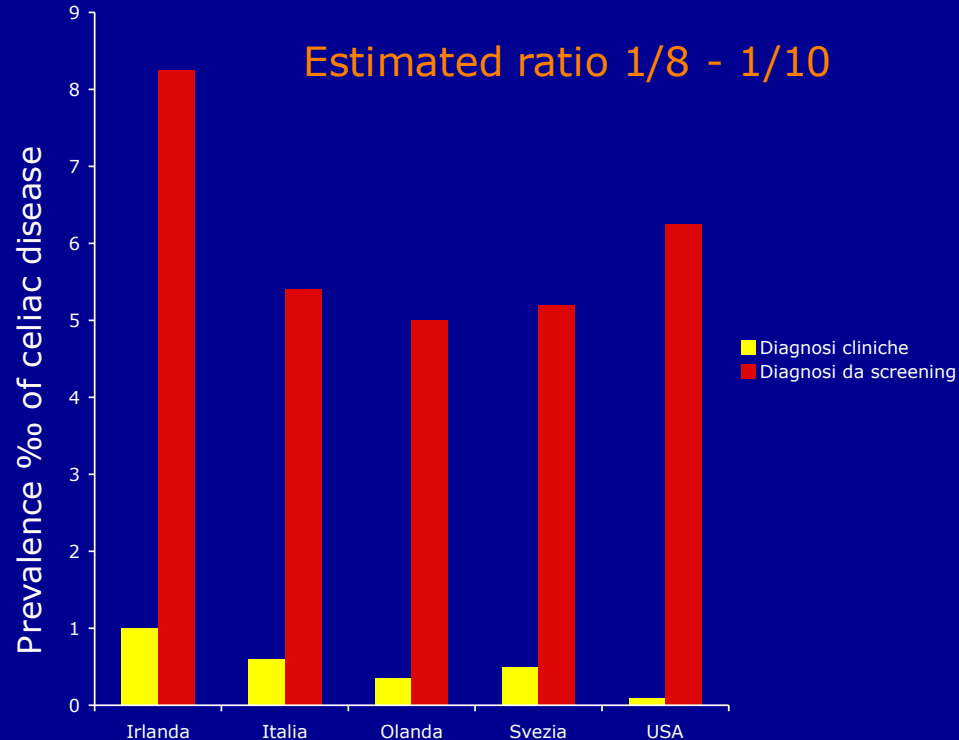


In celiac disease a large number of cases remain undiagnosed



Epidemiology and clinic of Celiac Disease

Gap between CD prevalence obtained from clinical data
and through serological screening



Prevalence of Celiac Disease in the General Population

	Prevalence, %
General Population	
Algeria	5.6
Argentina	0.6
Australia	0.4
Brazil	0.5
Burkina Faso	0
Egypt	0.5
Finland	1.0-2.4
Germany	0.2
India	0.3-1.0
Iran	0.5-1.0
Ireland	0.8
Italy	0.9-1.0
Libya	0.8
The Netherlands	0.5
New Zealand	1.2
Portugal	0.7
Russia	0.2
Spain	0.3-1.4
Sweden	0.5-2.9
Tunisia	0.6
Turkey	0.6-1.0
United Kingdom	0.9-1.5
United States	0.3-0.9
Mean (weighted)	1.0

Sardinia

1.0

?

Prevalence of Celiac Disease and in At-Risk Groups

	Prevalence, %
At-Risk Groups	
Type 1 diabetes	3-12
Autoimmune thyroid disease	3
Autoimmune liver disease	13.5
Down syndrome	5.5
Turner syndrome	6.5
Williams syndrome	9.5
IgA deficiency	3
IgA nephropathy	4
Juvenile idiopathic arthritis	1.5-2.5

JAMA August 15, 2017 Volume 318, Number 7

[https://doi.org/10.1016/S0140-6736\(05\)74871-6](https://doi.org/10.1016/S0140-6736(05)74871-6)

Is Celiac Disease on the Rise?

High Incidence of Celiac Disease in a Long-term Study of Adolescents With Susceptibility Genotypes



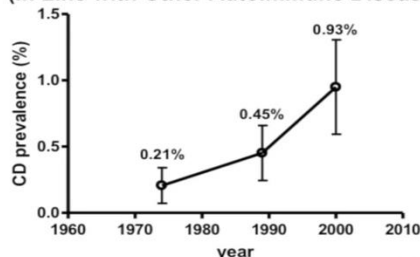
Edwin Liu,^{1,2} Fran Dong,² Anna E. Barón,³ Iman Taki,² Jill M. Norris,⁴ Brigitte I. Frohnert,² Edward J. Hoffenberg,¹ and Marian Rewers²

¹Digestive Health Institute and Colorado Center for Celiac Disease, Children's Hospital Colorado, ²Barbara Davis Center, ³Department of Biostatistics and Informatics, Colorado School of Public Health, ⁴Department of Epidemiology, Colorado School of Public Health, University of Colorado Denver, Aurora, Colorado

Gastroenterology 2017;152:1329–1336

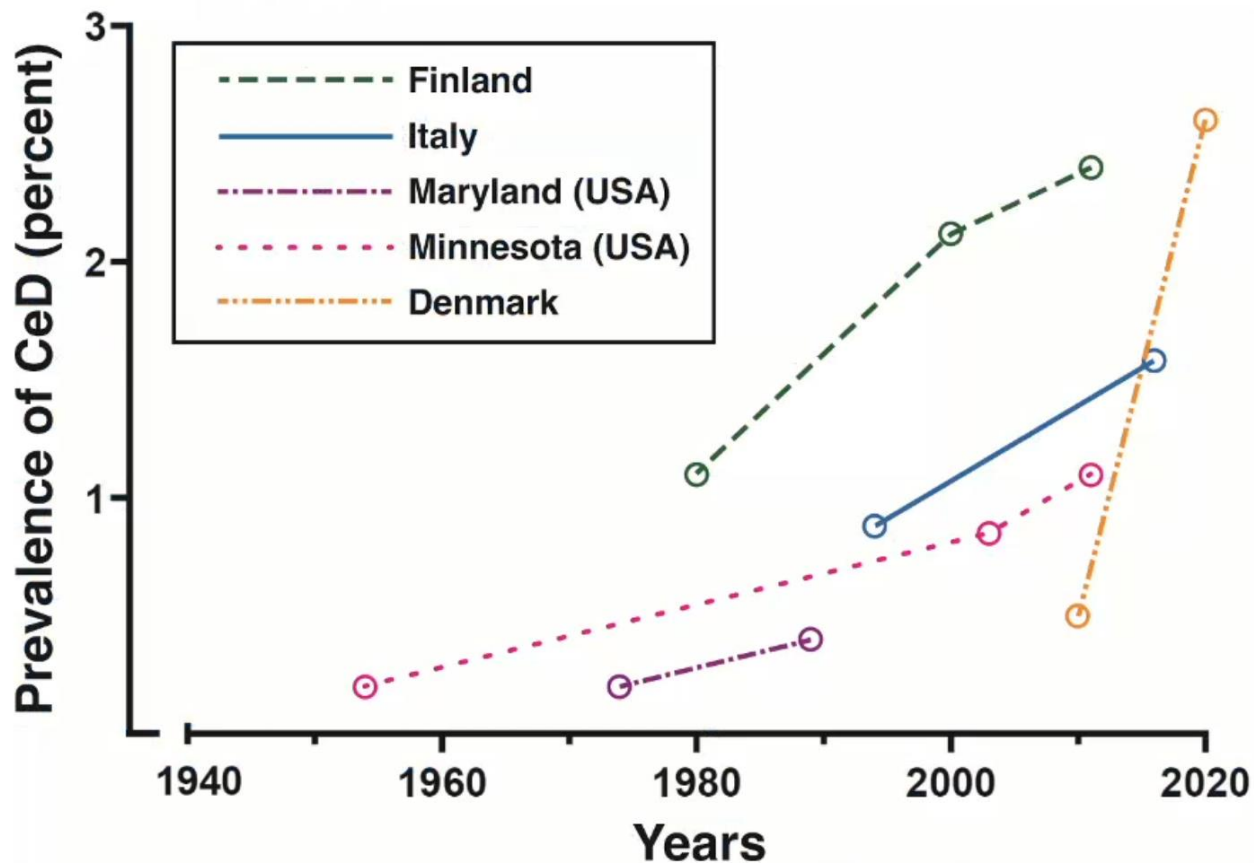
The estimated cumulative incidence for CDA in the Denver general population at 5, 10, and 15 years of age was 2.4%, 4.3%, and 5.1%, respectively, and incidence values for celiac disease were 1.6%, 2.8%, and 3.1%, respectively

Increased Prevalence Over Time in U.S.A. (in Line with Other Autoimmune Diseases)

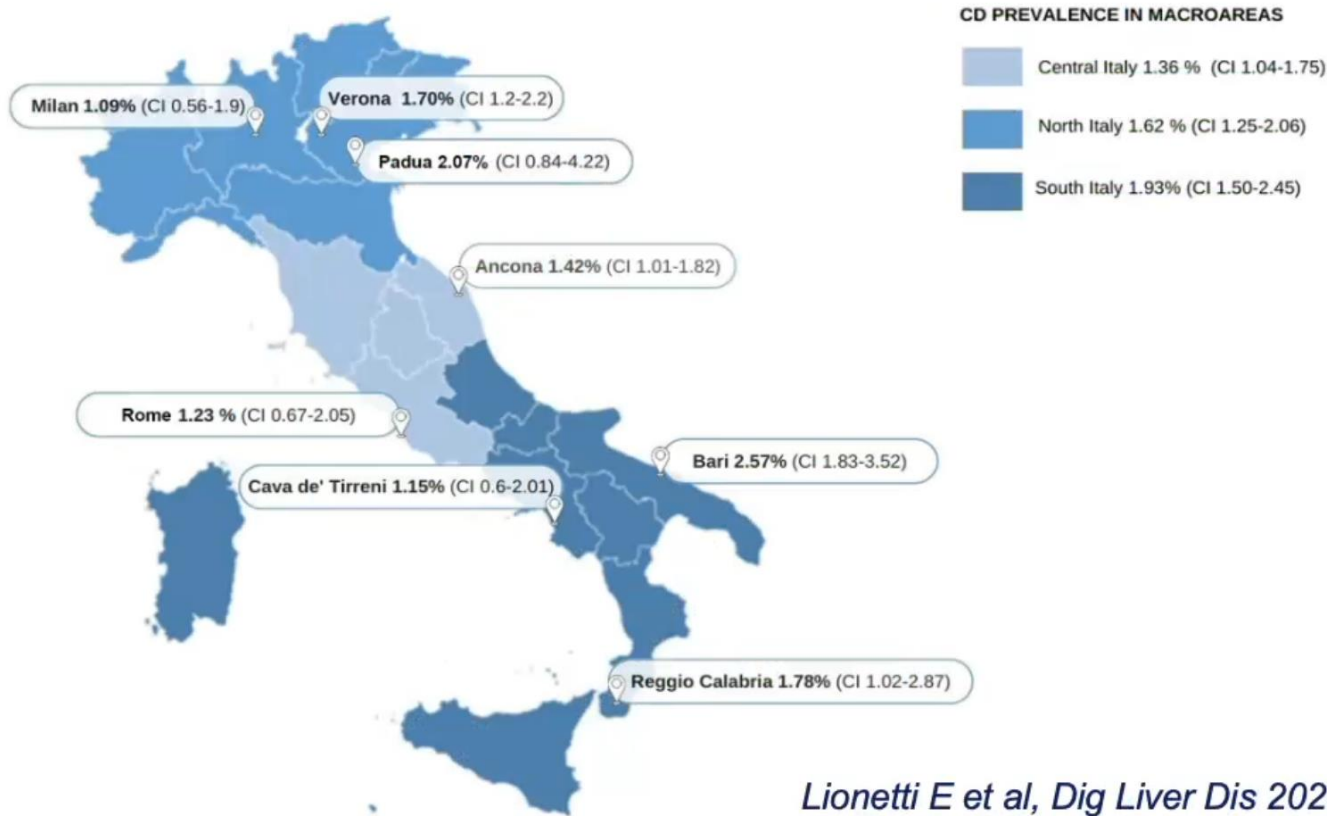


During the past 35 years the true prevalence of CD in USA doubled every 15 years.

Increasing prevalence of CeD



Prevalence of CeD in Italian school children: **1.62%**



Study Highlights

WHAT IS KNOWN

- ✓ Type 1 diabetes (T1D) and celiac disease frequently coexist in the same patient.
- ✓ T1D and celiac disease share human leukocyte antigen (HLA) genetic susceptibility.

WHAT IS NEW HERE

- ✓ In celiac disease (CD), only a fraction of HLA genotypes is permissive for T1D development.
- ✓ Some HLA genotypes conferring high risk of CD may protect from the future development of T1D.
- ✓ All HLA genotypes associated with T1D confer susceptibility to CD.
- ✓ HLA typing in CD may predict the risk of future development of T1D.