

# **Glyphosate Correlations with Disease**

Stephanie Seneff

U.S. Congressional Hearing

June 14, 2016

# THIS IS THE NEW CHILDHOOD IN AMERICA:

1 in 3 is overweight  
1 in 6 has learning disabilities  
1 in 9 has asthma  
1 in 10 has ADHD  
1 in 12 has food allergies  
1 in 20 has seizures  
1 in 54 males has autism  
1 in 68 has autism

1 in 68

50% (half) of all children have chronic illness or are overweight.

This is the NEW NORMAL  
in our country.

Are you concerned yet?!  
Because if you're not,  
then you are not paying attention!



# US Health Status

- US makes up 5% of the world's population but consumes more than 50% of the world's pharmaceutical drugs
- We spend more on health care than Japan, France, China, UK, Italy, Canada, Brazil, Spain, and Australia, *combined*
- US ranks last or near last among developed nations on infant mortality and life expectancy
- We also suffer from more chronic illnesses
- *We consume 25% of the world supply of glyphosate*



Health » Diet + Fitness | Living Well | Parenting + Family

Live TV

U.S. Edition +



menu

# Americans are dying at the highest rate in more than a decade



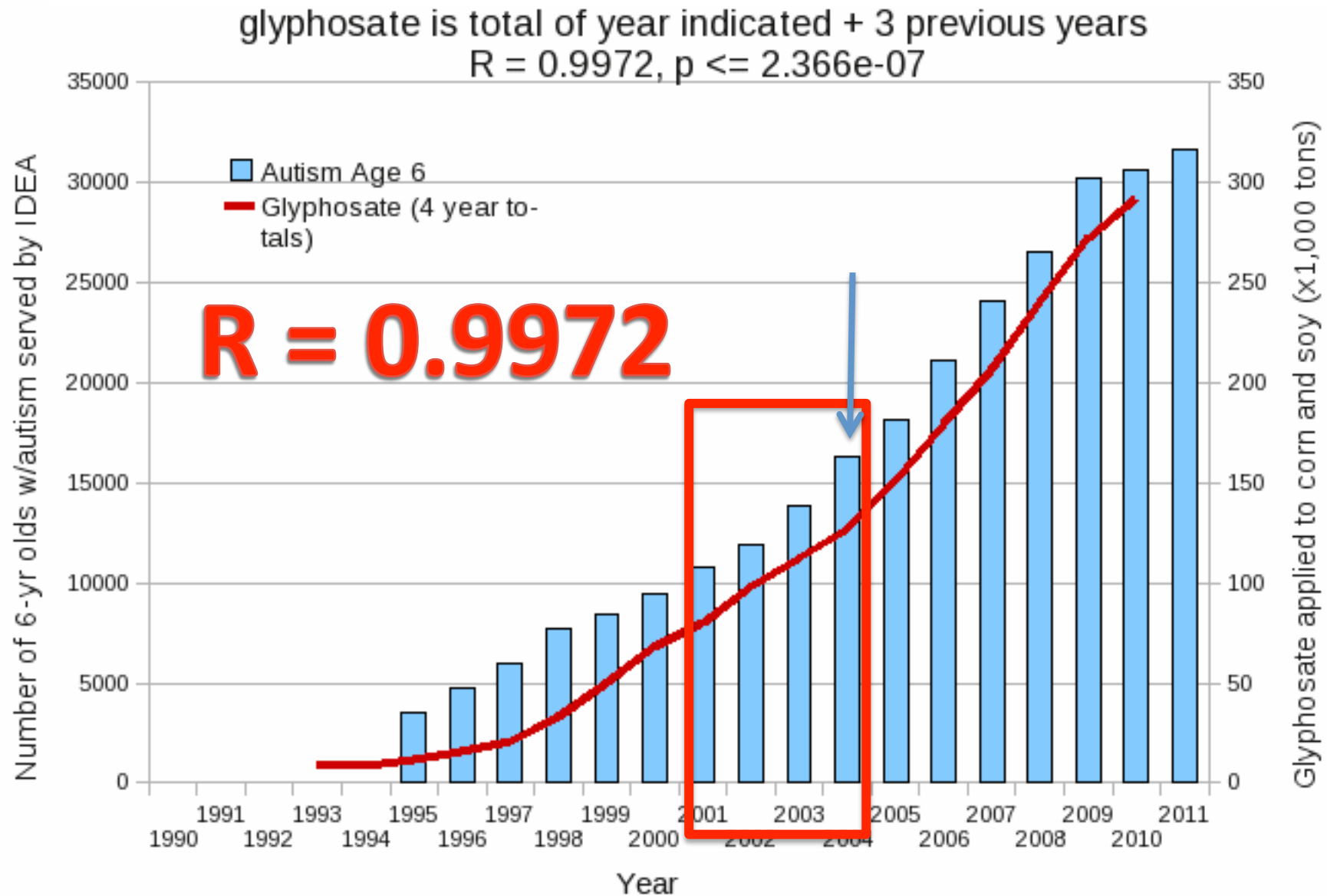
By **Jen Christensen**, CNN

⌚ Updated 7:38 AM ET, Fri June 3, 2016

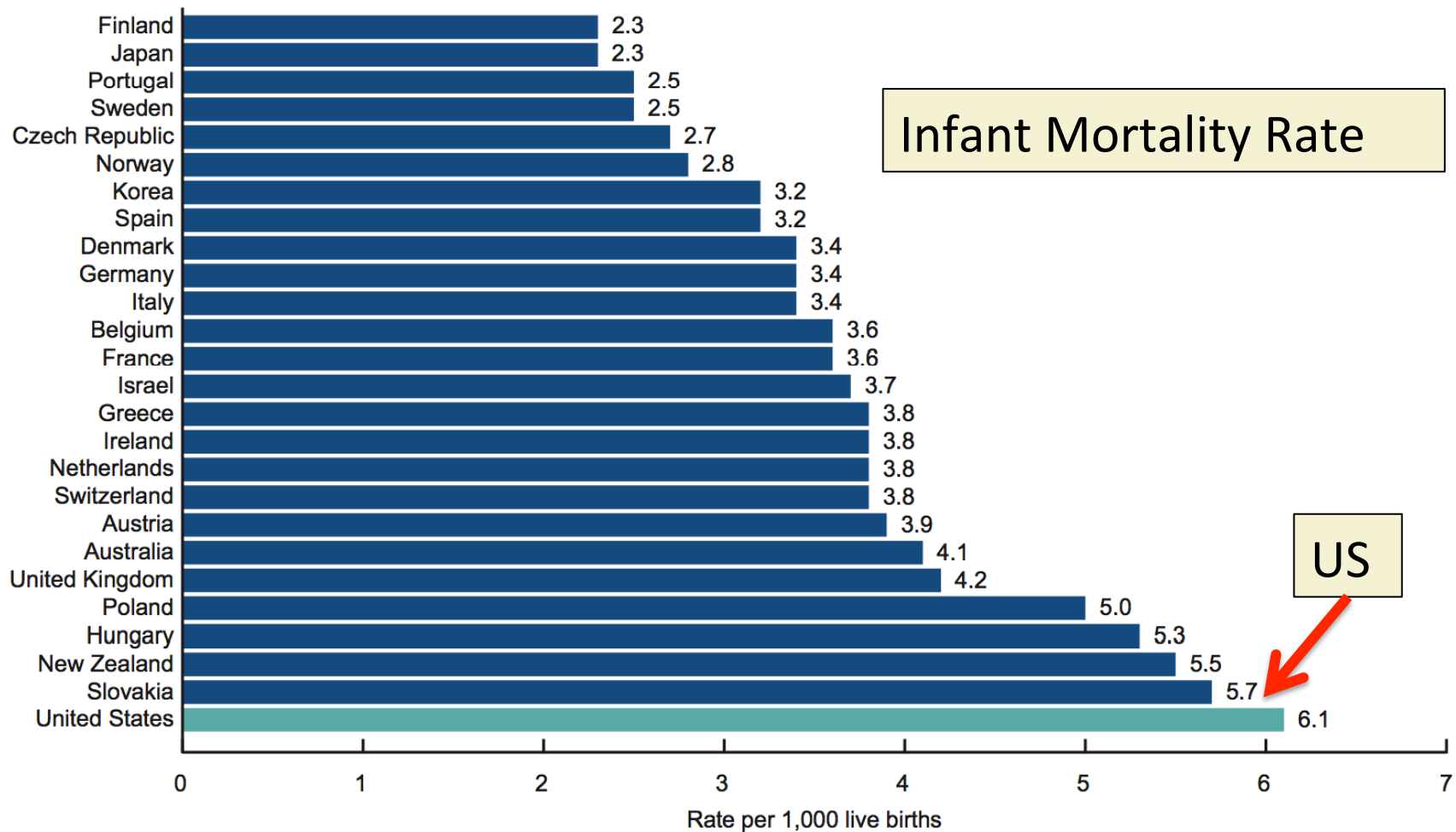




# Autism Prevalence: 6 year olds\*



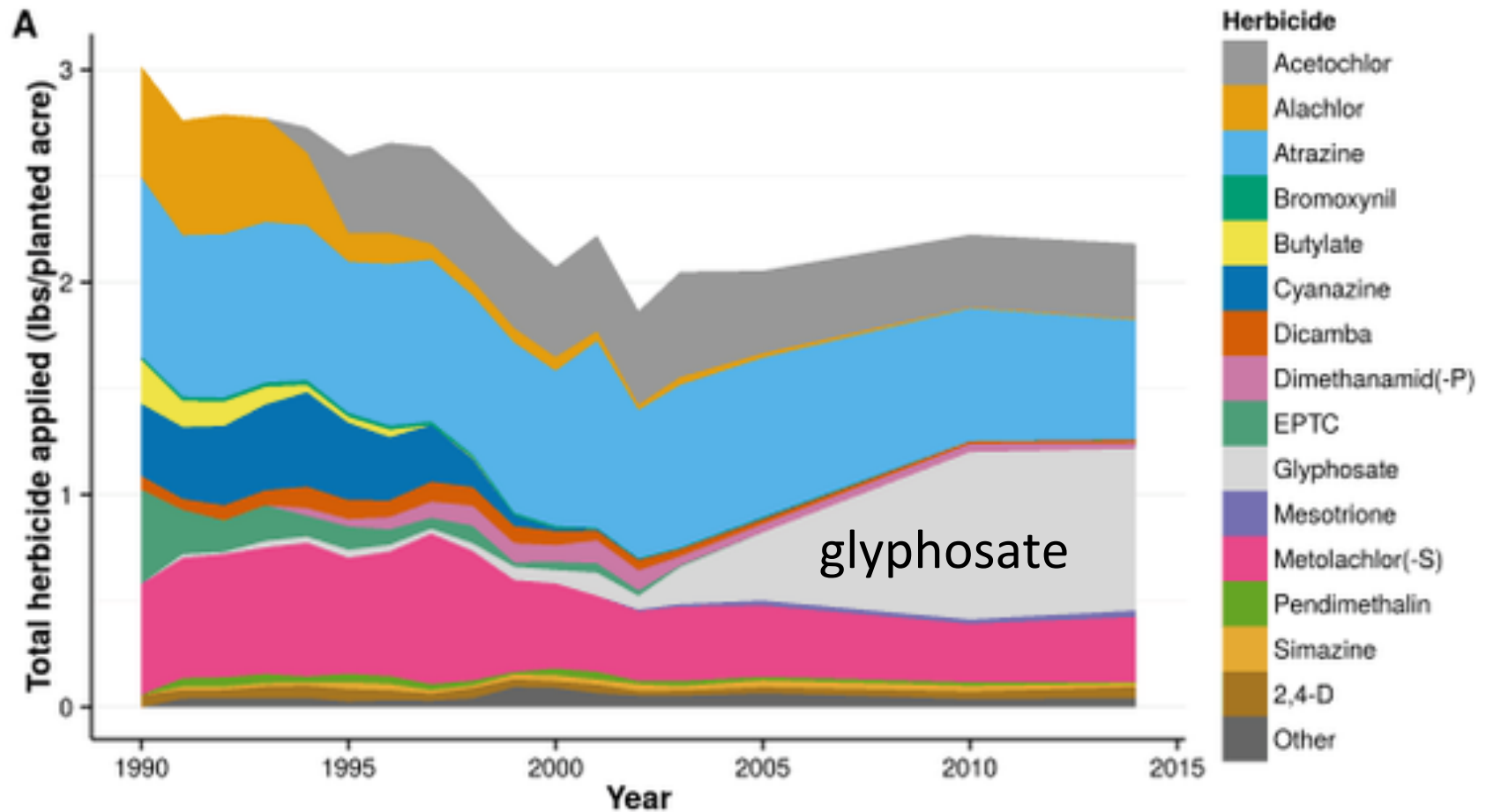
\* Figure 15, Seneff et al., Agricultural Sciences, 2015, 6, 42-70



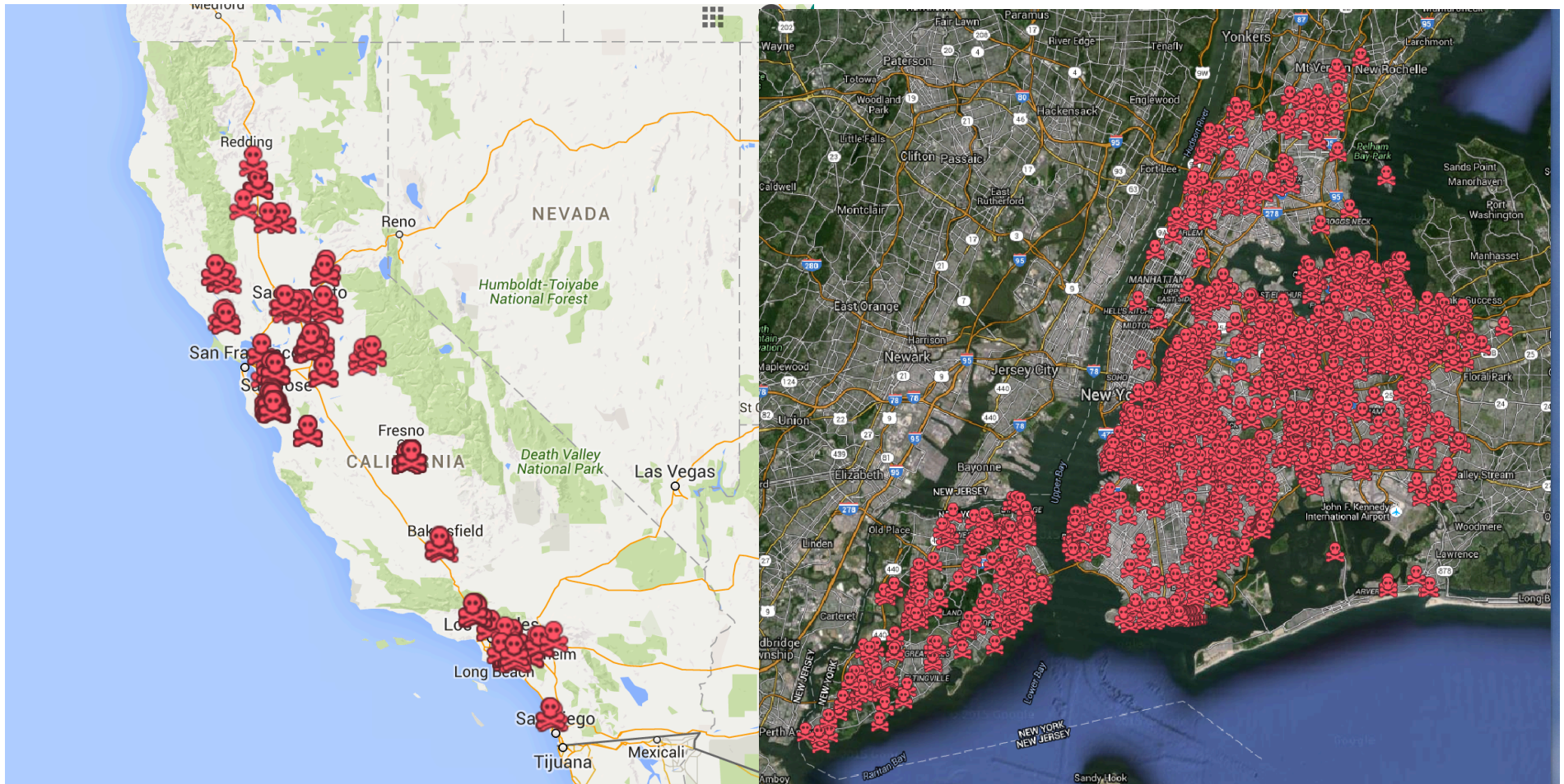
NOTES: Canada's 2010 data were not available from the Organisation for Economic Co-operation and Development (OECD) at the time of manuscript preparation. The 2009 infant mortality rate for Canada was 4.9. If the 2010 data for Canada had been available, the U.S. ranking may have changed. Deaths at all gestational ages are included, but countries may vary in completeness of reporting events at younger gestational ages.

SOURCES: CDC/NCHS, linked birth/infant death data set (U.S. data); and OECD 2014 (all other data). Data are available from: <http://www.oecd.org>.

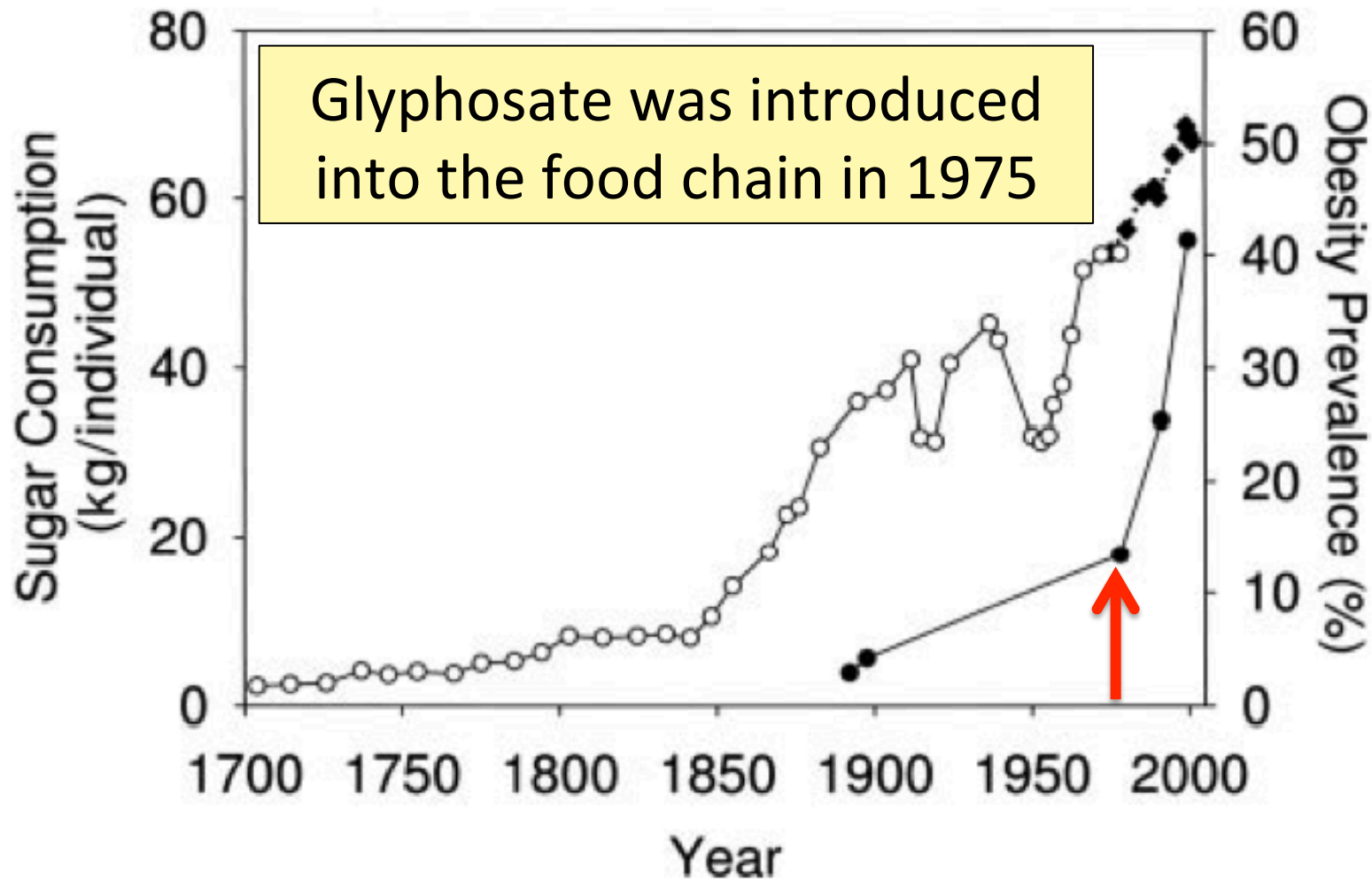
# Herbicide Use on Corn in US



# Use of Glyphosate in Public School Yards in California and Public Parks in New York City



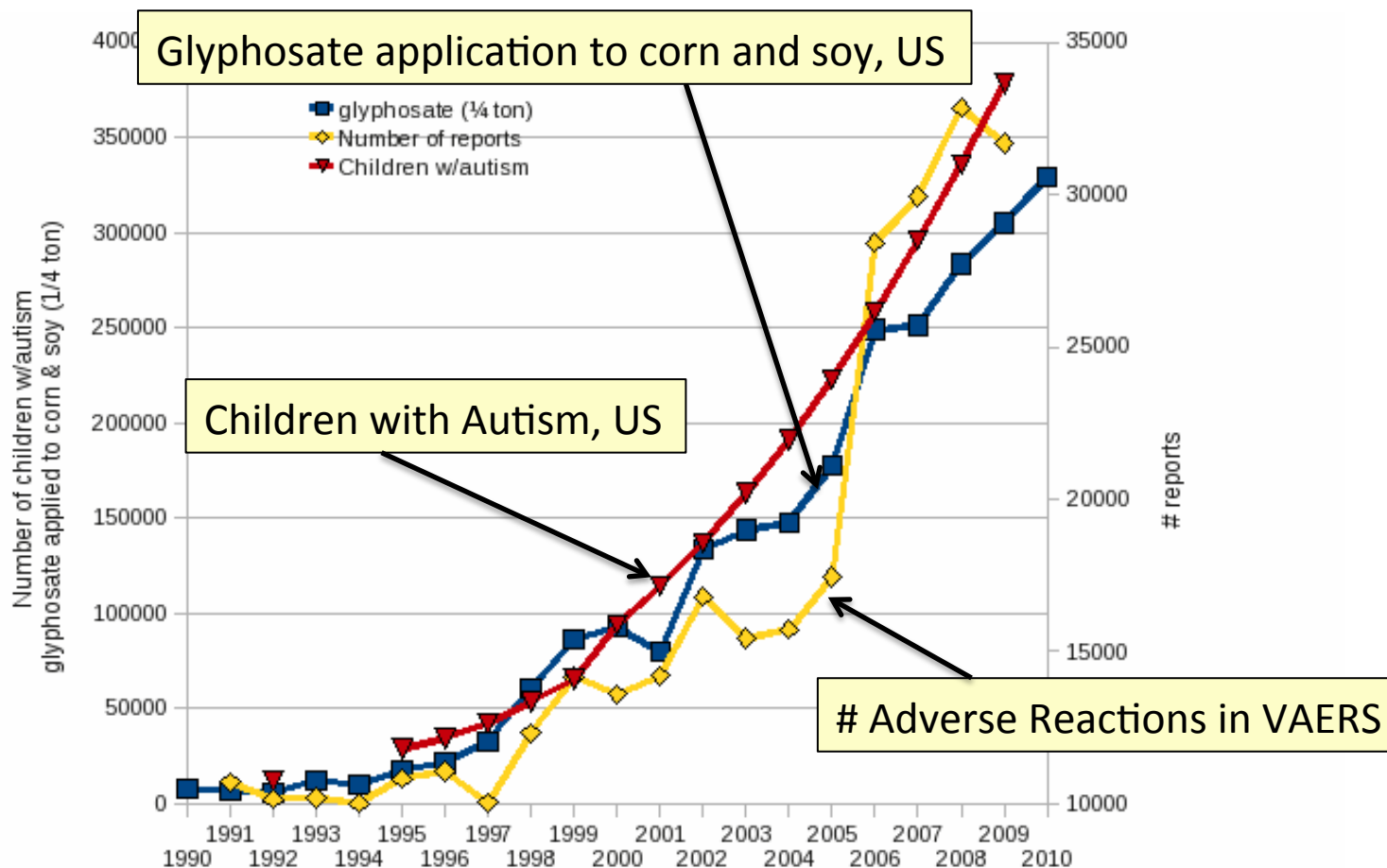
# Obesity in US over Time\*



\*Figure 1, R.J. Johnson et al., Am J Clin Nutr 2007;86:899–906.



# Autism, Glyphosate, Vaccine Reactions\*



\*Collaboration with Dr. Nancy Swanson

# Genetically engineered crops, glyphosate and the deterioration of health in the United States of America

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<sup>2</sup> *International Federation of Organic Agricultural Movements, Bonn, Germany*

<sup>3</sup> *Abacus Enterprises, Lummi Island, WA, USA*

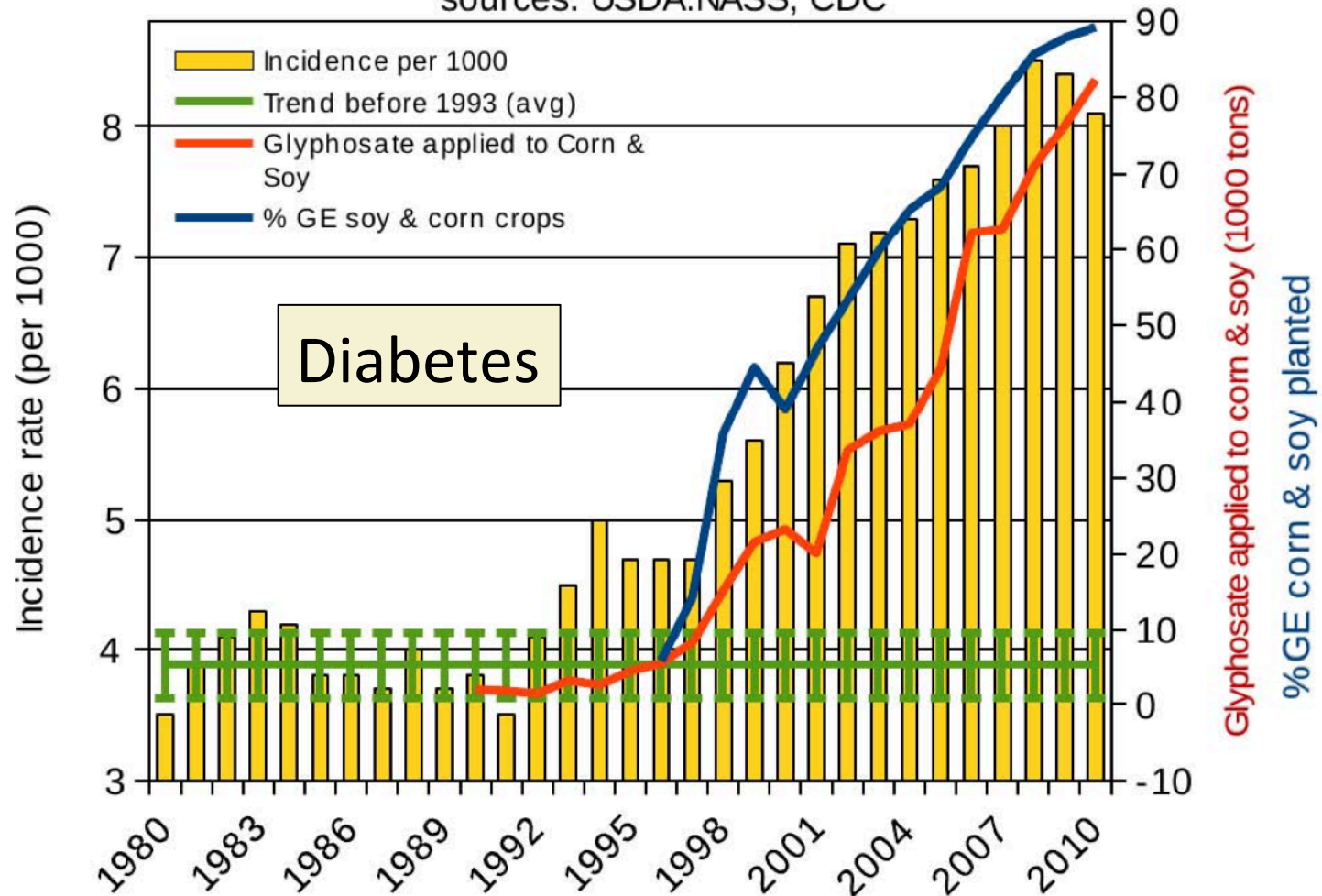
<sup>4</sup> *Crustal Imaging Facility, Conoco Phillips School of Geology and Geophysics, University of Oklahoma, USA*

*\* Corresponding author: andreleu.al@gmail.com*



## Annual Incidence of Diabetes (age adjusted)

plotted against %GE corn & soy crops planted ( $R = 0.9547$ ,  $p \leq 1.978e-06$ )  
 along with glyphosate applied to corn & soy in US ( $R = 0.935$ ,  $p \leq 8.303e-08$ )  
 sources: USDA:NASS; CDC

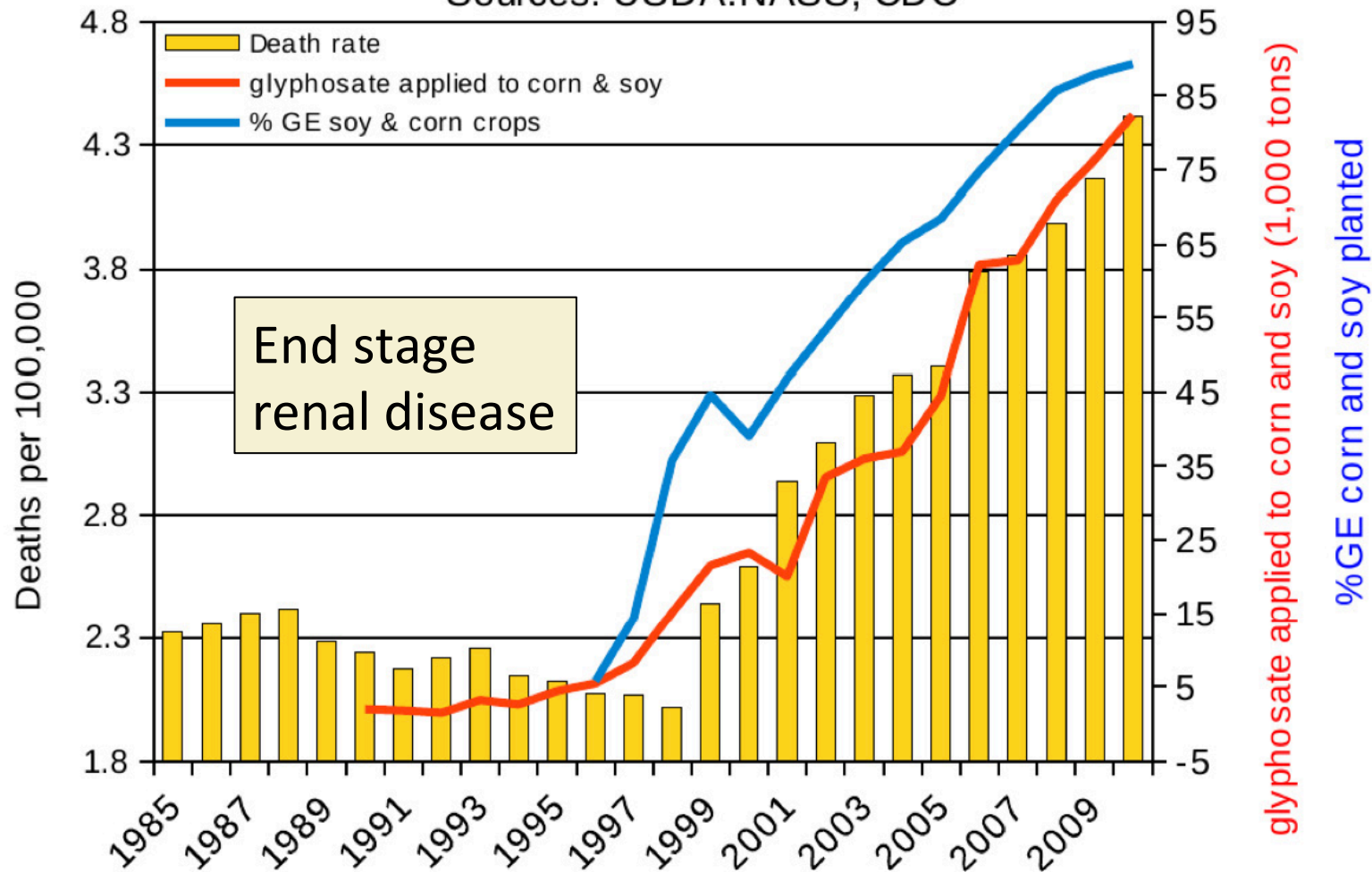


\*Figure 14, Swanson et al. Journal of Organic Systems 2014; 9(2):6-37.

## Age Adjusted End Stage Renal Disease Deaths (ICD N18.0 & 585.6)

plotted against %GE corn & soy planted ( $R = 0.9578$ ,  $p \leq 4.165e-06$ )  
and glyphosate applied to corn & soy ( $R = 0.9746$ ,  $p \leq 7.244e-09$ )

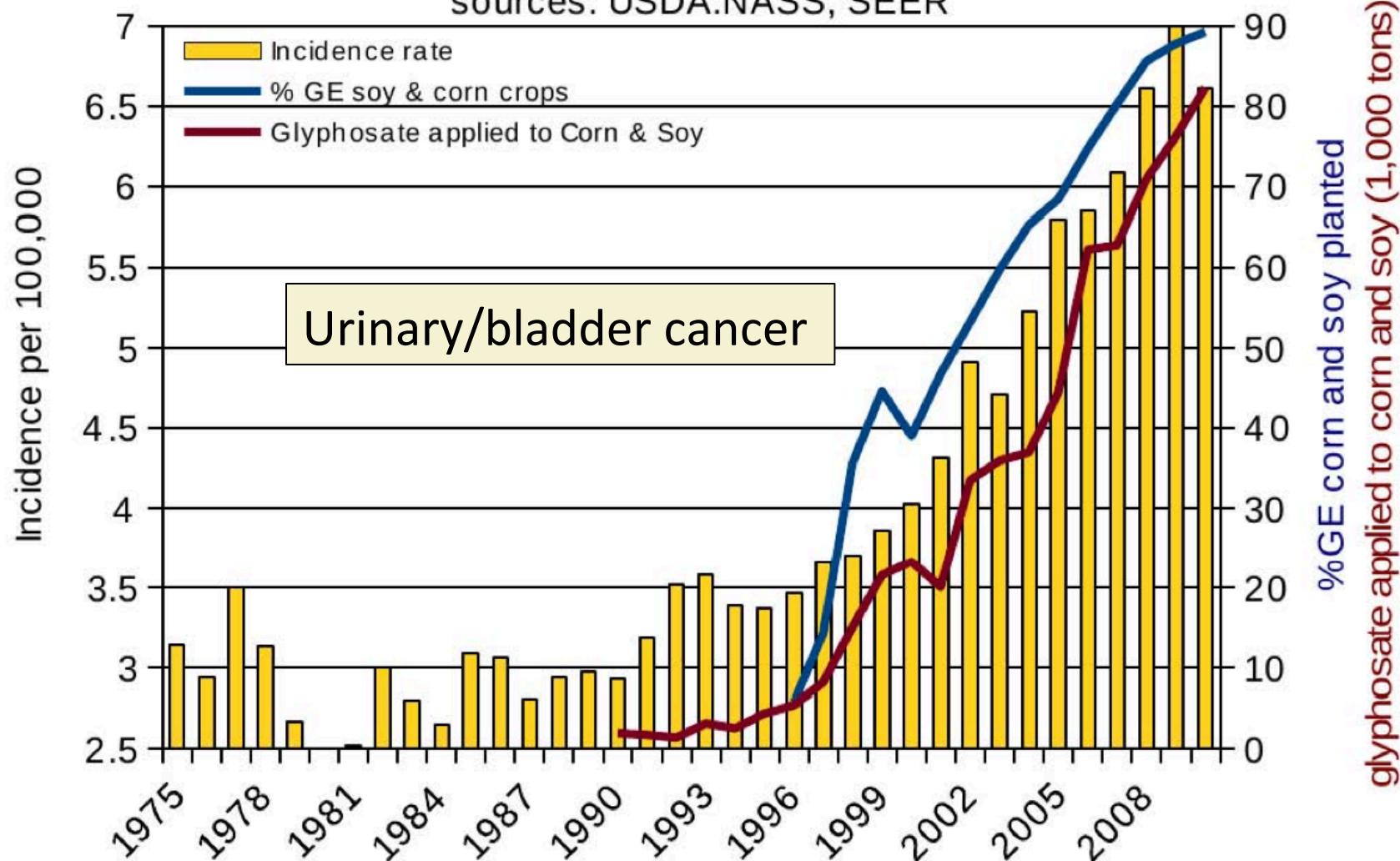
Sources: USDA:NASS; CDC



\*Figure 18, Swanson et al. Journal of Organic Systems 2014; 9(2):6-37.

## Age Adjusted Urinary/Bladder Cancer Incidence

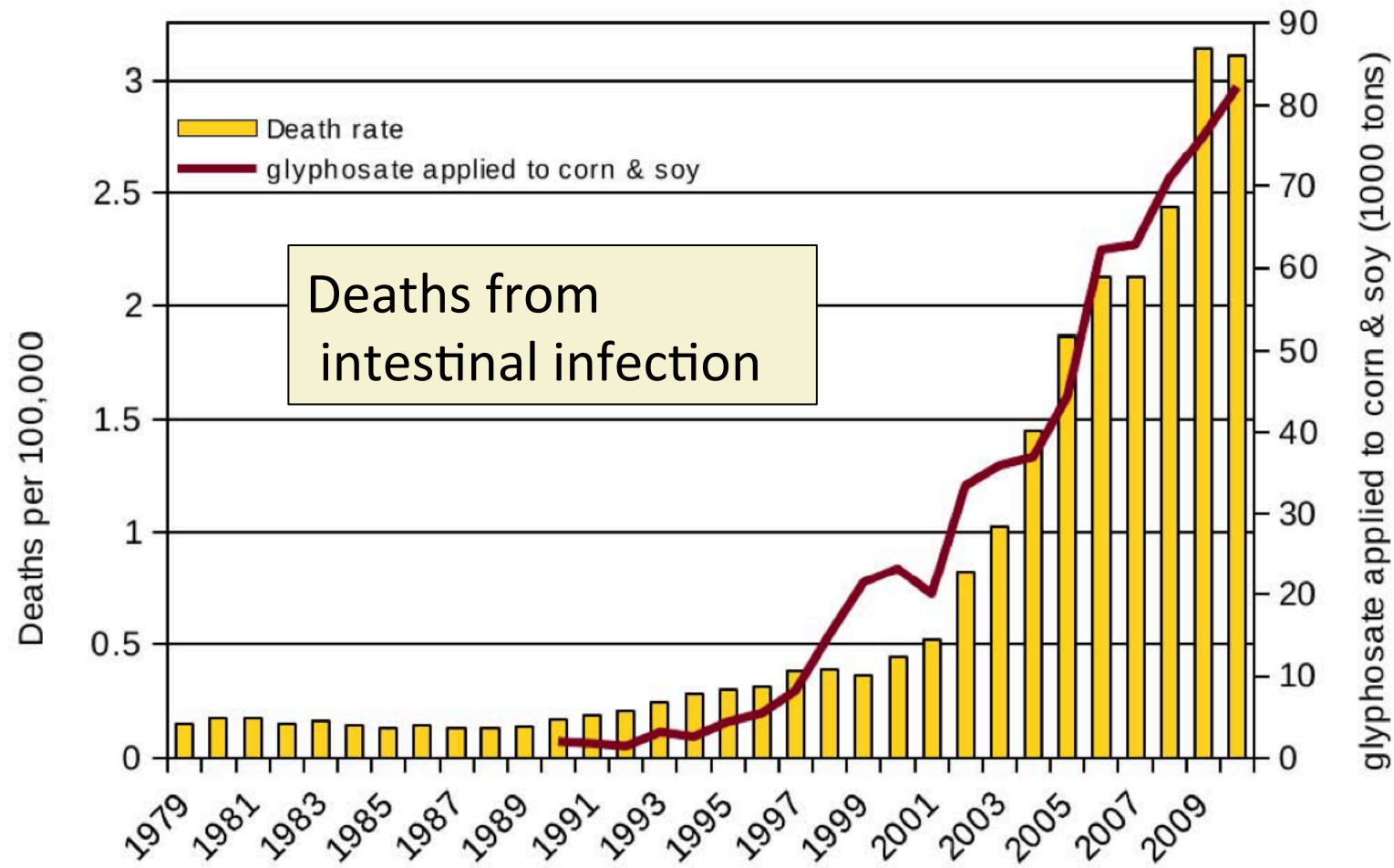
Plotted against % GE corn and soy ( $R = 0.9449$ ,  $p \leq 7.1e-06$ )  
and glyphosate applied to corn and soy ( $R = 0.981$ ,  $p \leq 4.702e-09$ )  
sources: USDA:NASS; SEER



\*Figure 9, Swanson et al. Journal of Organic Systems 2014; 9(2):6-37.

## Age Adjusted Deaths due to Intestinal Infection (ICD A04, A09; 008, 009)

plotted against glyphosate applied to corn & soy ( $R = 0.9738$ ,  $p \leq 7.632e-09$ )  
Sources USDA:NASS; CDC



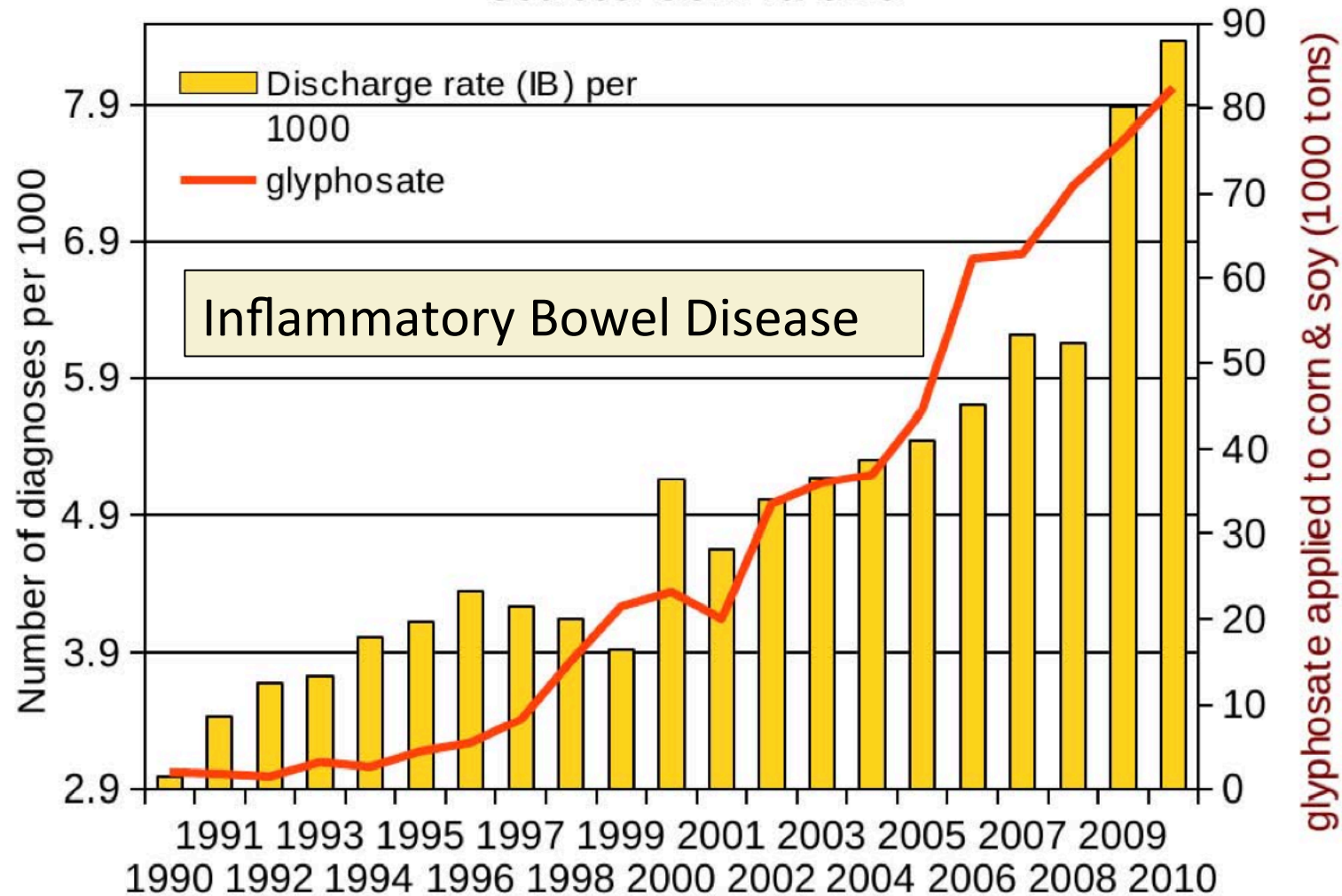
\*Figure 21, Swanson et al. Journal of Organic Systems 2014; 9(2):6-37.



# Hospital discharge diagnoses (any) of Inflammatory Bowel disease (Crohn's and Ulcerative Colitis ICD 555 & 556)

plotted against glyphosate applied to corn & soy ( $R = 0.9378$ ,  $p \leq 7.068e-08$ )

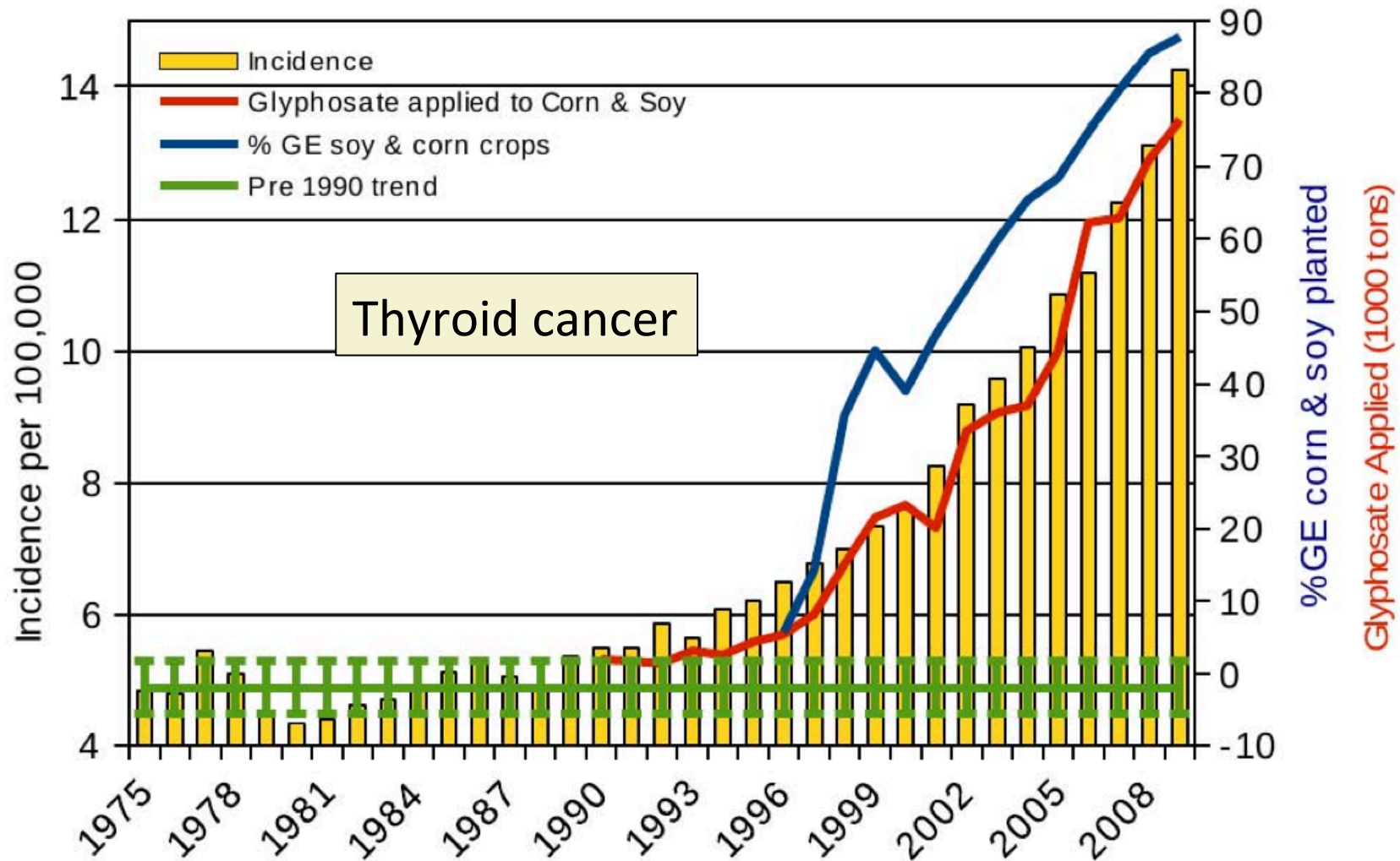
Sources: USDA & CDC



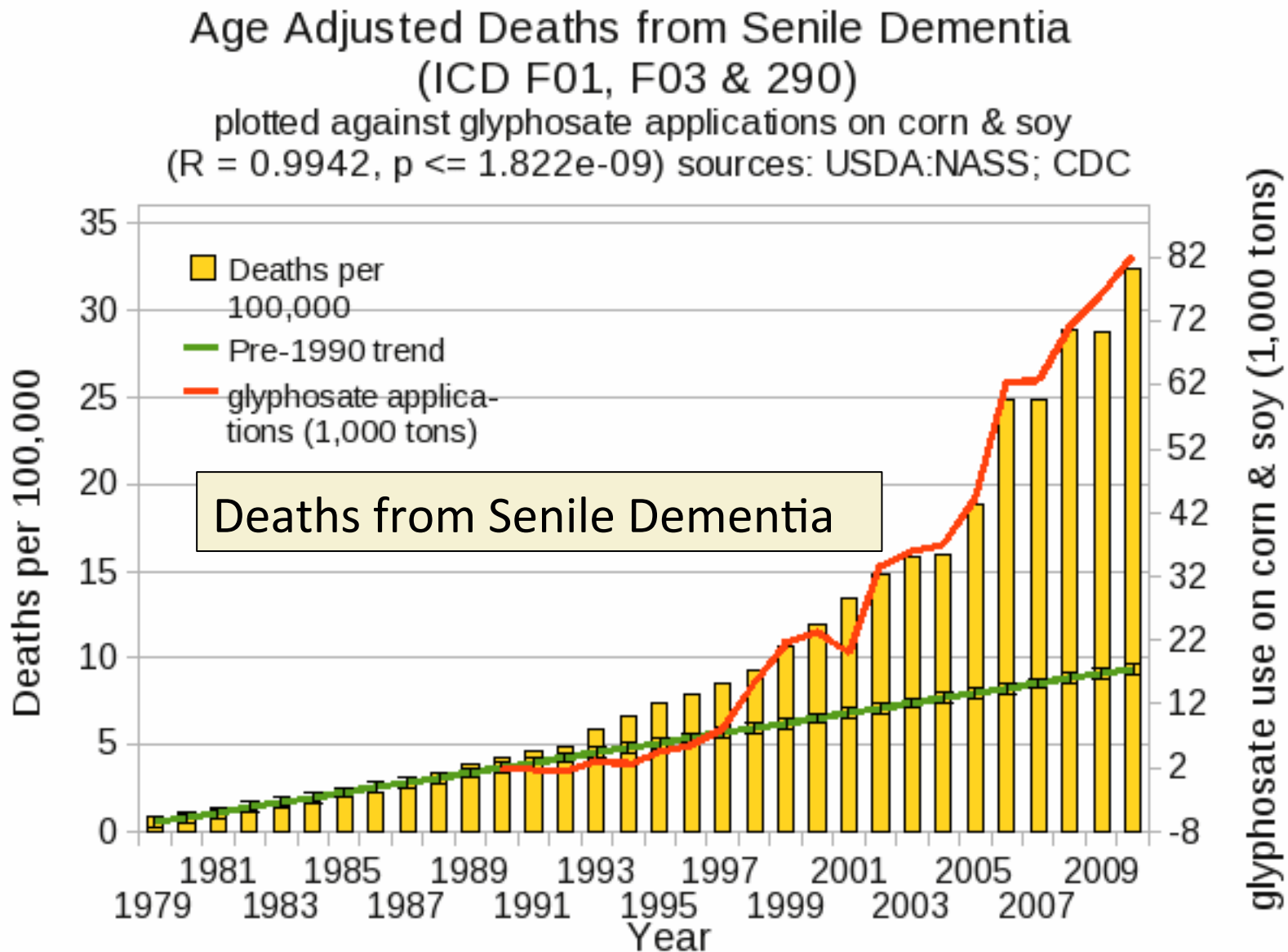
\*Figure 20, Swanson et al. Journal of Organic Systems 2014; 9(2):6-37.

## Thyroid Cancer Incidence Rate (age adjusted)

plotted against glyphosate applied to U.S. corn & soy ( $R = 0.988$ ,  $p \leq 7.612e-09$ )  
along with %GE corn & soy crops  $R = 0.9377$ ,  $p \leq 2.152e-05$   
sources: USDA:NASS; SEER



\*Figure 10, Swanson et al. Journal of Organic Systems 2014; 9(2):6-37.



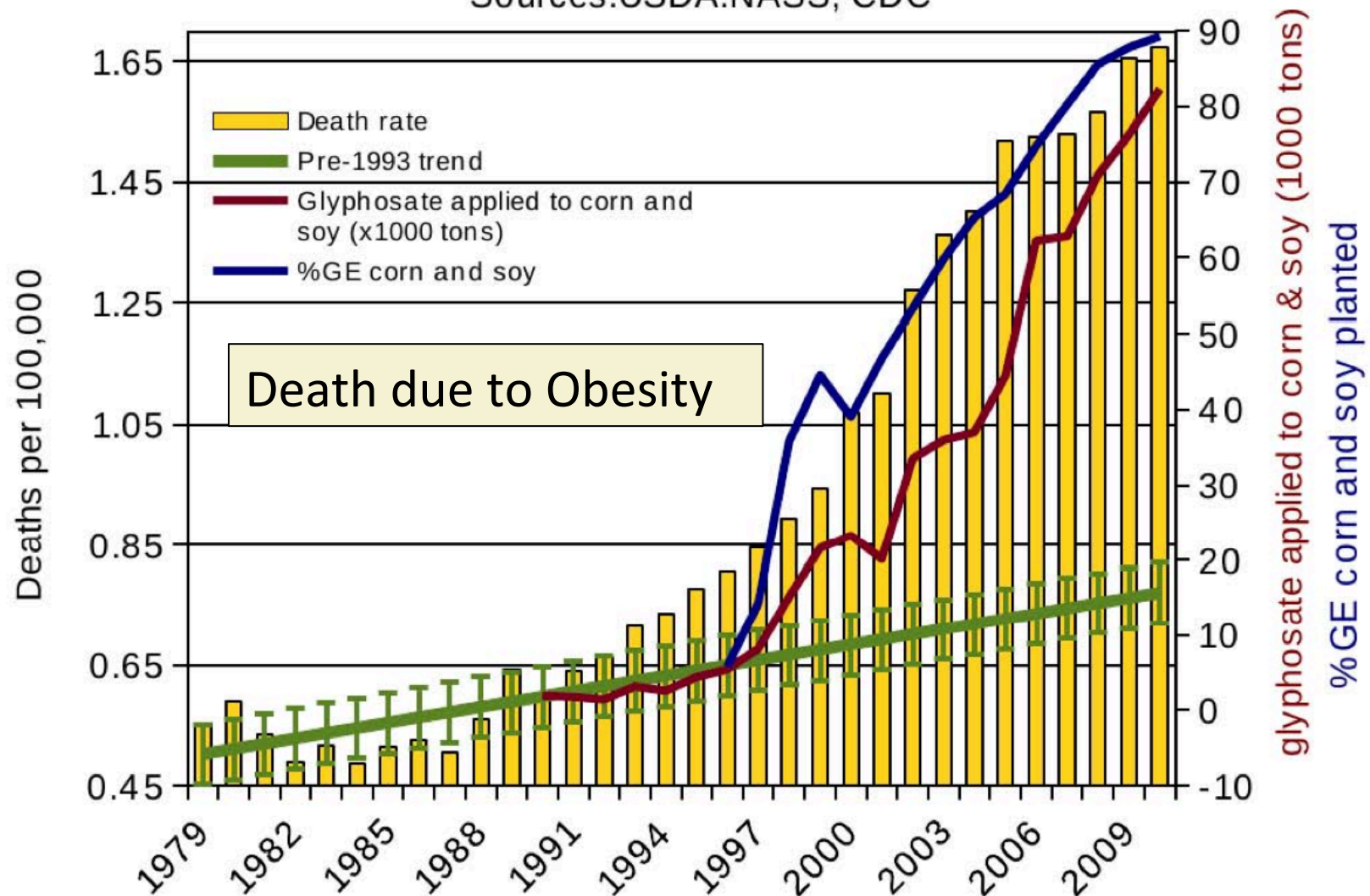
\*Figure 24, Swanson et al. Journal of Organic Systems 2014; 9(2):6-37.



## Age Adjusted Deaths due to Obesity (ICD E66 & 278)

plotted against %GE corn & soy ( $R = 0.9618$ ,  $p \leq 3.504e-06$ )  
and glyphosate applied to corn & soy ( $R = 0.9616$ ,  $p \leq 1.695e-08$ )

Sources:USDA:NASS; CDC



\*Figure 13, N Swanson et al., *Journal of Organic Systems*, 9(2), 2014

Interdiscip Toxicol. 2013; **Vol. 6**(4): 159–184.

**doi:** 10.2478/intox-2013-0026

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## REVIEW ARTICLE

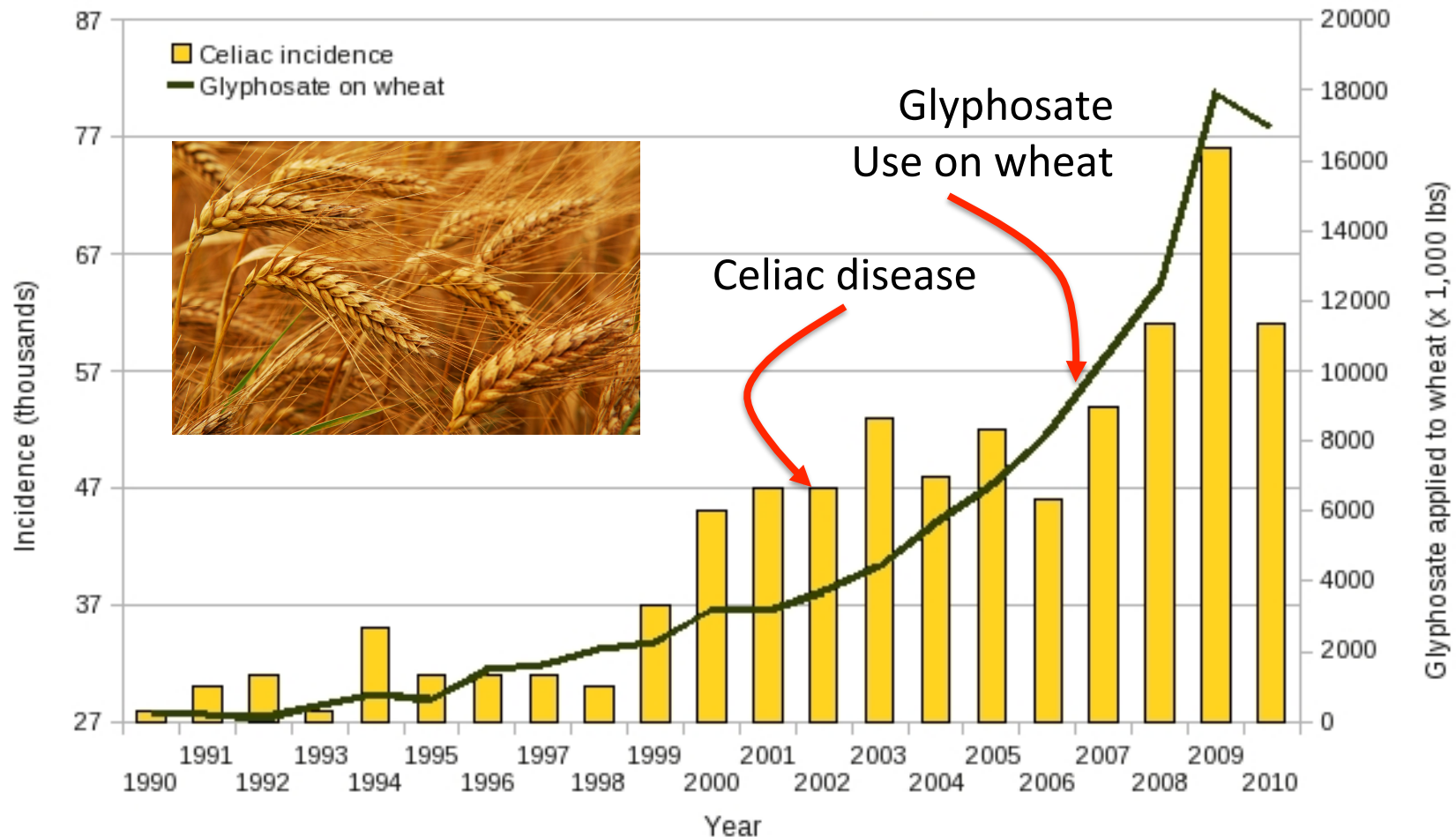
# Glyphosate, pathways to modern diseases II: Celiac sprue and gluten intolerance

**Anthony SAMSEL<sup>1</sup> and Stephanie SENEFF<sup>2</sup>**

<sup>1</sup> *Independent Scientist and Consultant, Deerfield, NH 03037, USA*

<sup>2</sup> *Computer Science and Artificial Intelligence Laboratory, MIT, Cambridge, MA, USA*

# Glyphosate and Celiac Disease\*



\*Samsel and Seneff, Interdiscip Toxicol. 2013;6(4): 159–184.



# The High Cost of Pesticides: Human and Animal Diseases

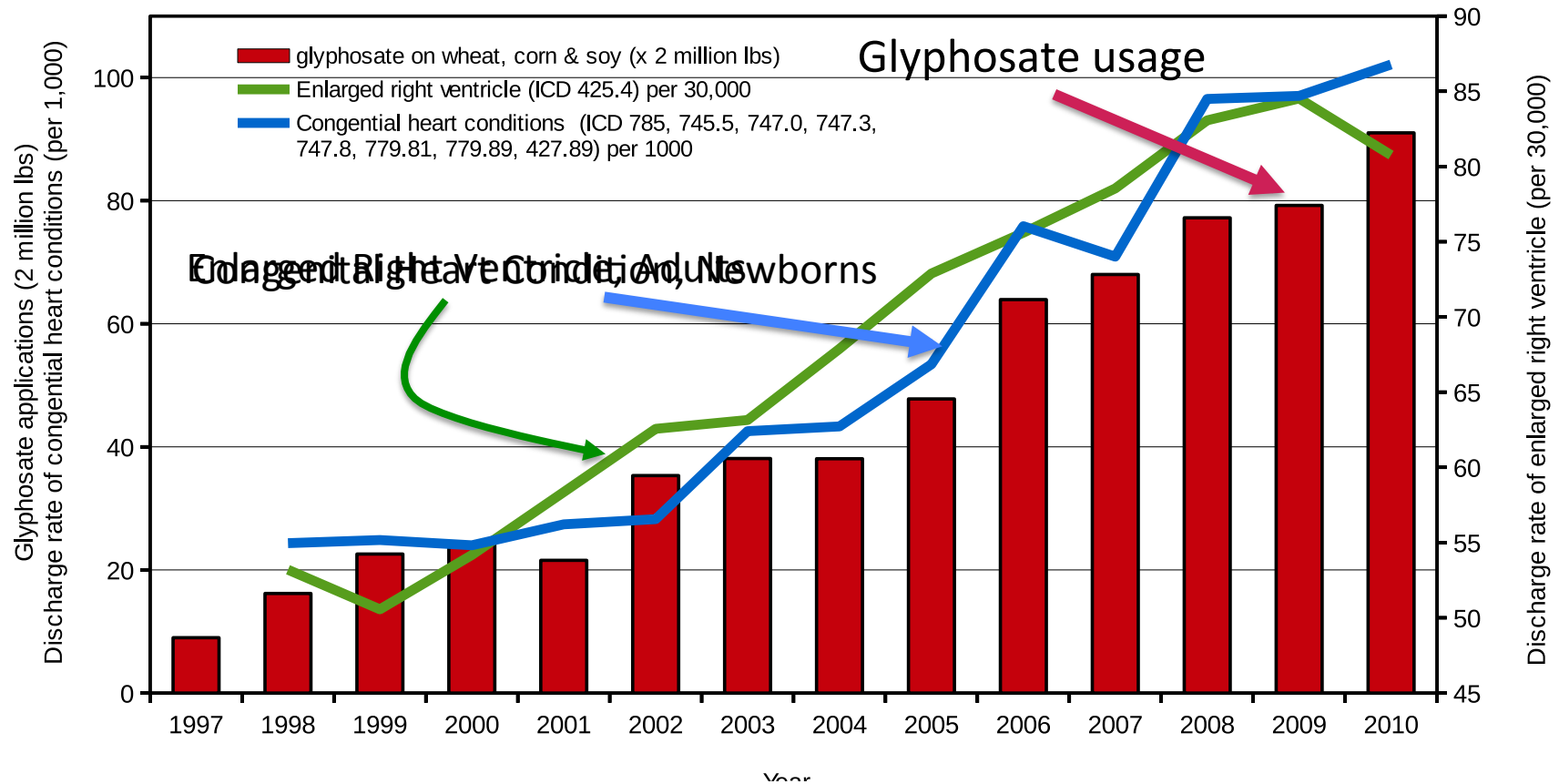
**Judy Hoy<sup>1</sup>, Nancy Swanson<sup>2</sup> and Stephanie Seneff<sup>3\*</sup>**

<sup>1</sup>*Independent Researcher, Stevensville, MT, USA*

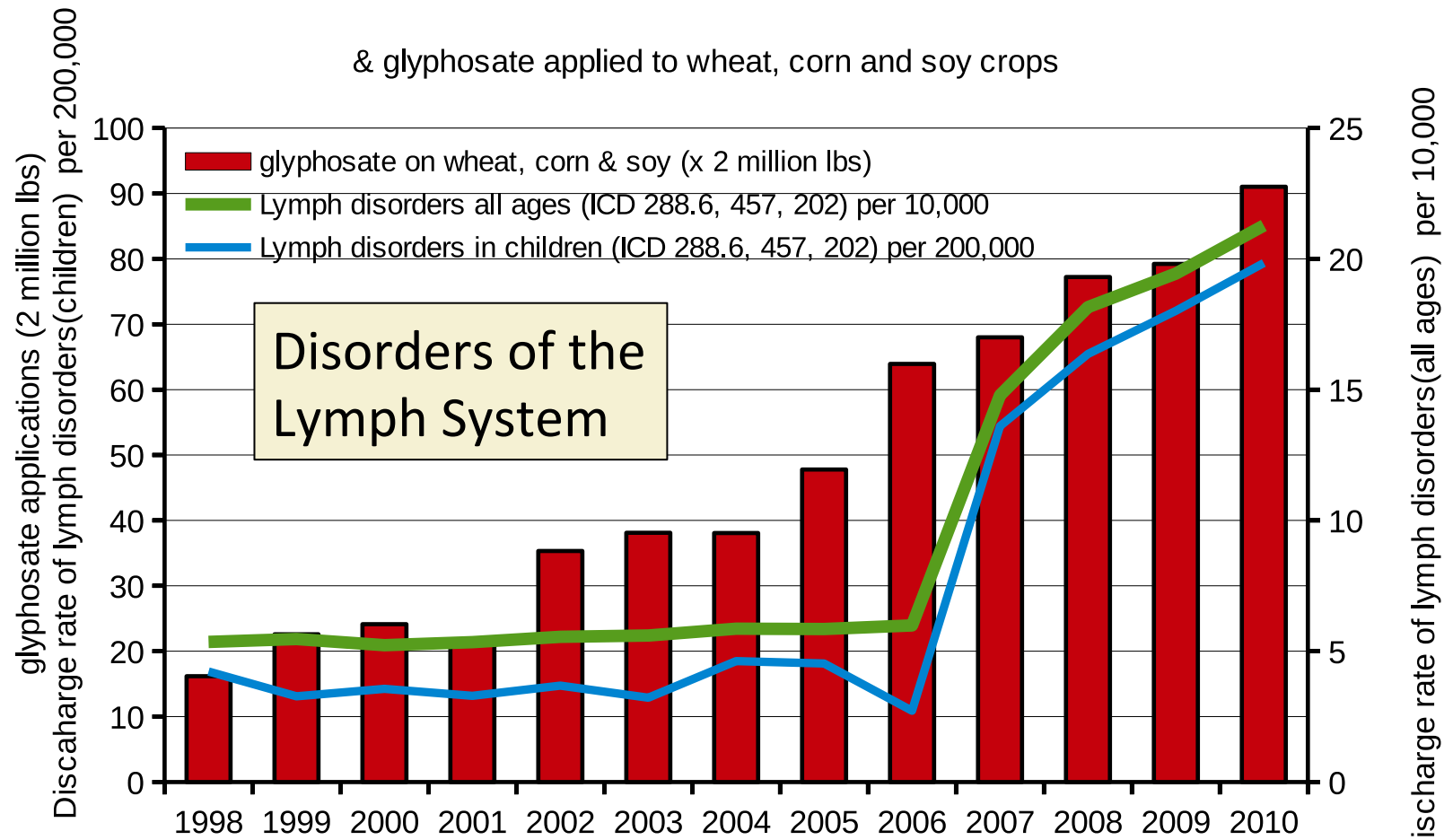
<sup>2</sup>*Abacus Enterprises, Lummi Island, WA, USA*

<sup>3</sup>*Computer Science and Artificial Intelligence Laboratory, Massachusetts Institute of Technology, USA*

# Glyphosate and Heart Disease\*



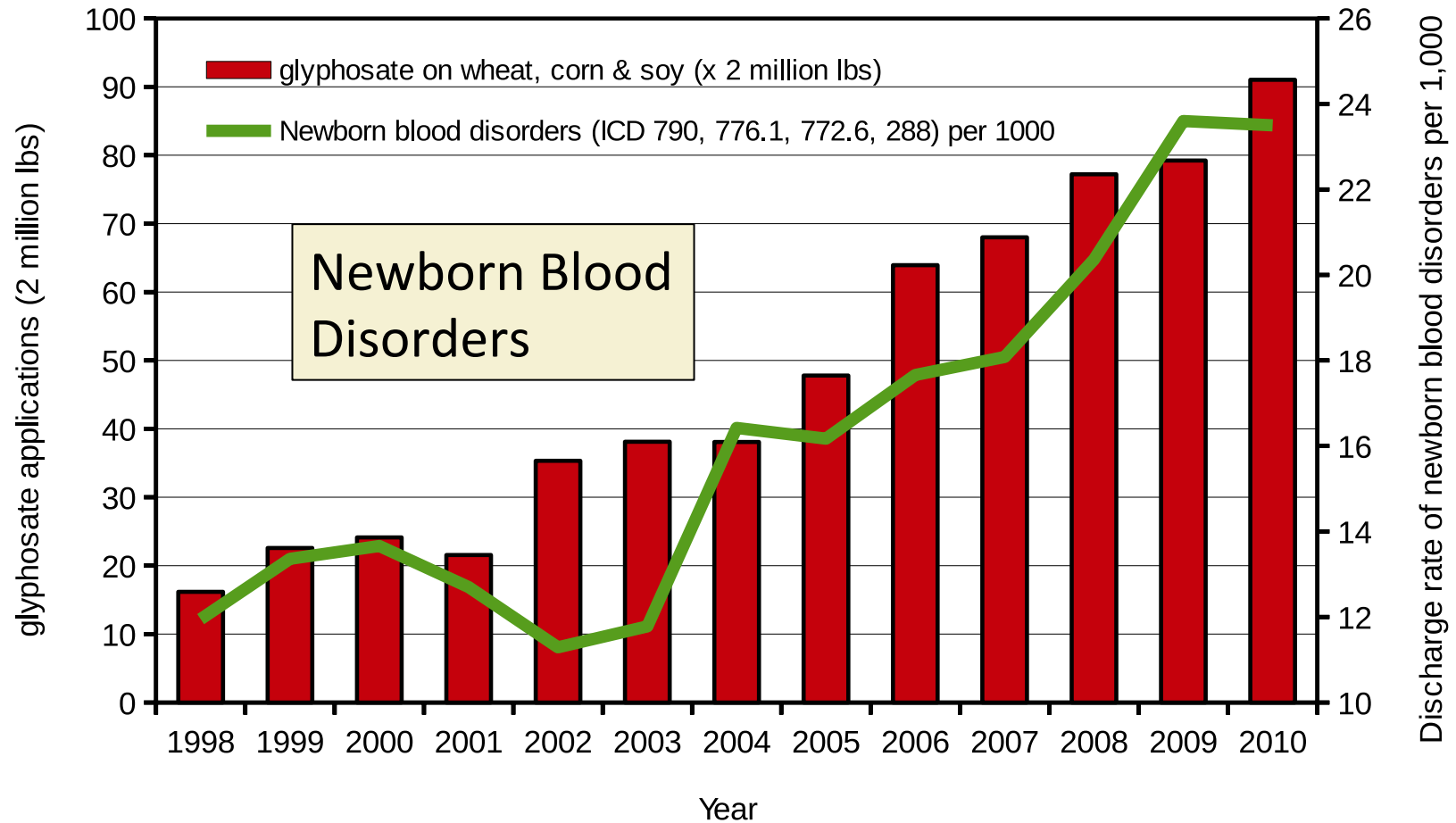
\* Figure 22, J. Hoy et al. Poult Fish Wildl Sci 2015, 3:1



\* Figure 19, J. Hoy et al. Poult Fish Wildl Sci 2015, 3:1

Immune-related newborn blood disorders ( $R = 0.9216$ ,  $p \leq 8.204e-05$ )

& glyphosate applied to wheat, corn and soy crops



\* Figure 19, J. Hoy et al. Poult Fish Wildl Sci 2015, 3:1



**Agricultural Sciences, 2015, 6, 42-70**

Published Online January 2015 in SciRes. <http://www.scirp.org/journal/as>

<http://dx.doi.org/10.4236/as.2015.61005>



# Aluminum and Glyphosate Can Synergistically Induce Pineal Gland Pathology: Connection to Gut Dysbiosis and Neurological Disease

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<sup>1</sup>Computer Science and Artificial Intelligence Laboratory, MIT, Cambridge, MA, USA

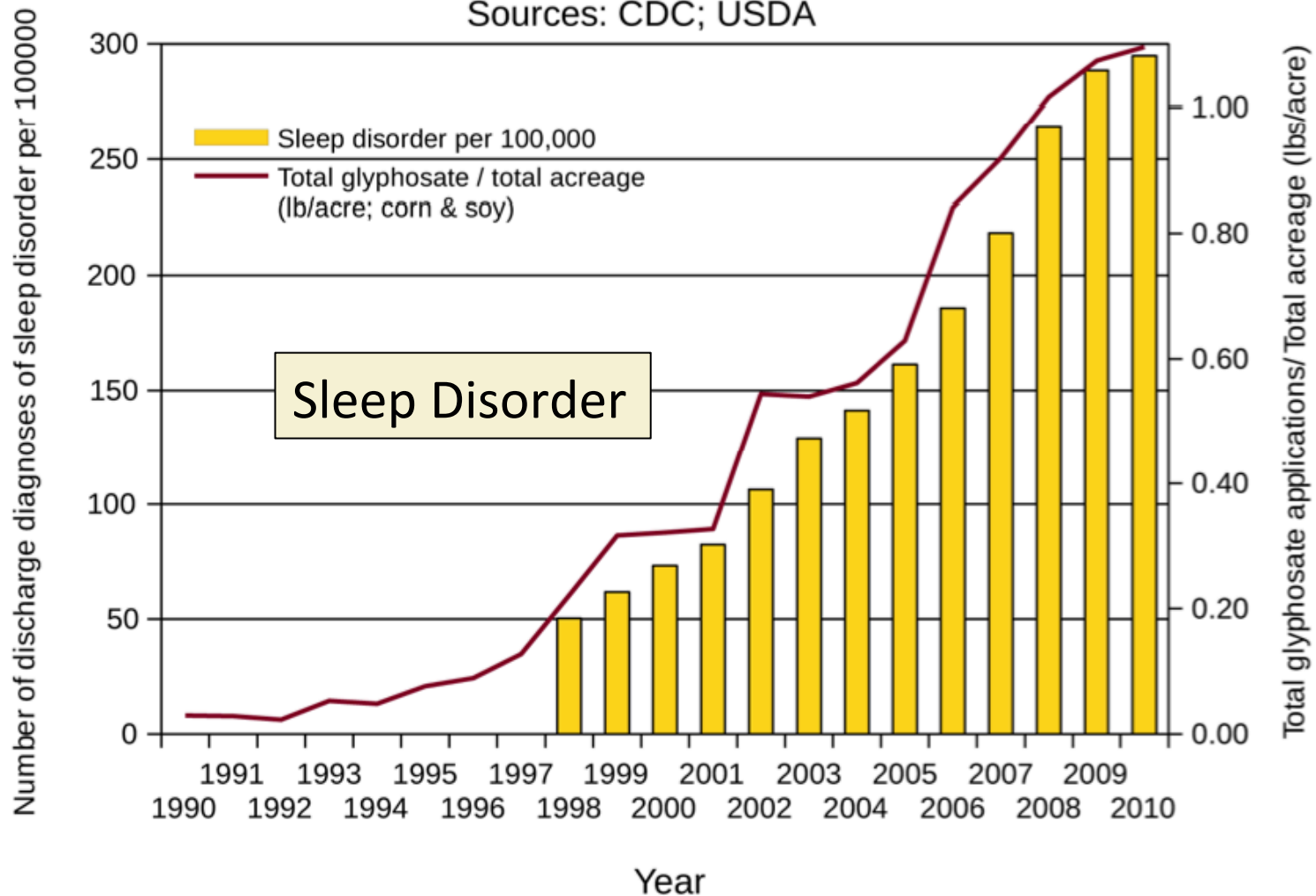
<sup>2</sup>Independent Researcher, Abacus Enterprises, Lummi Island, WA, USA

Email: \*[seneff@csail.mit.edu](mailto:seneff@csail.mit.edu)

# Hospital Discharge Diagnoses of Sleep Disorders (ICD 327, 780.50-59, 307.41-49) & Glyphosate applied to corn & soy crops

$R = 0.9876$ ,  $p \leq 7.744e-06$

Sources: CDC; USDA

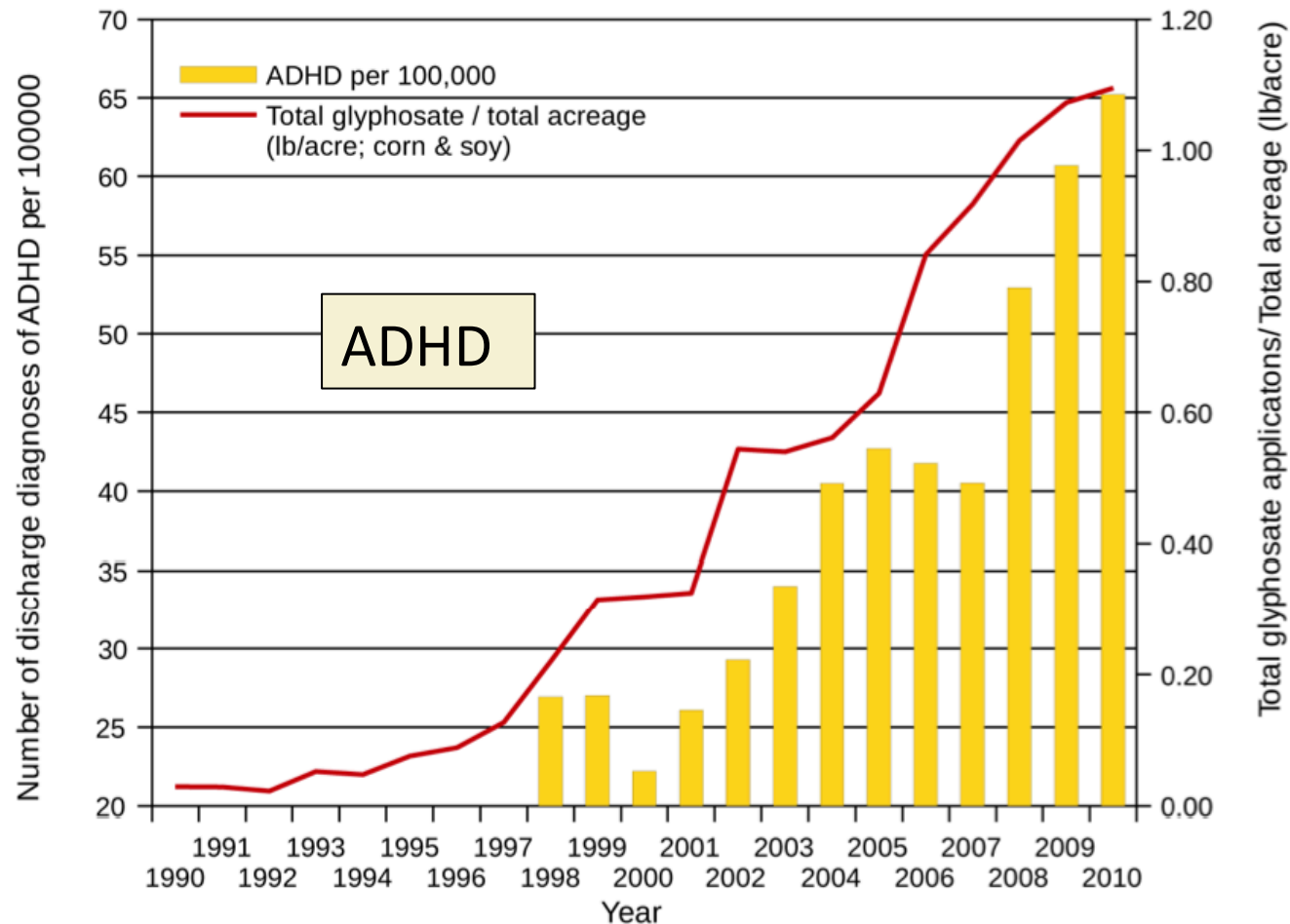


\*Figure 5, S. Seneff et al., Agricultural Sciences 2015; 6:42-70.

## Hospital Discharge Diagnoses of ADHD (ICD 314.00-01) & Glyphosate applied to corn & soy crops

$R = 0.9466$ ,  $p \leq 3.632e-05$

Sources: CDC; USDA

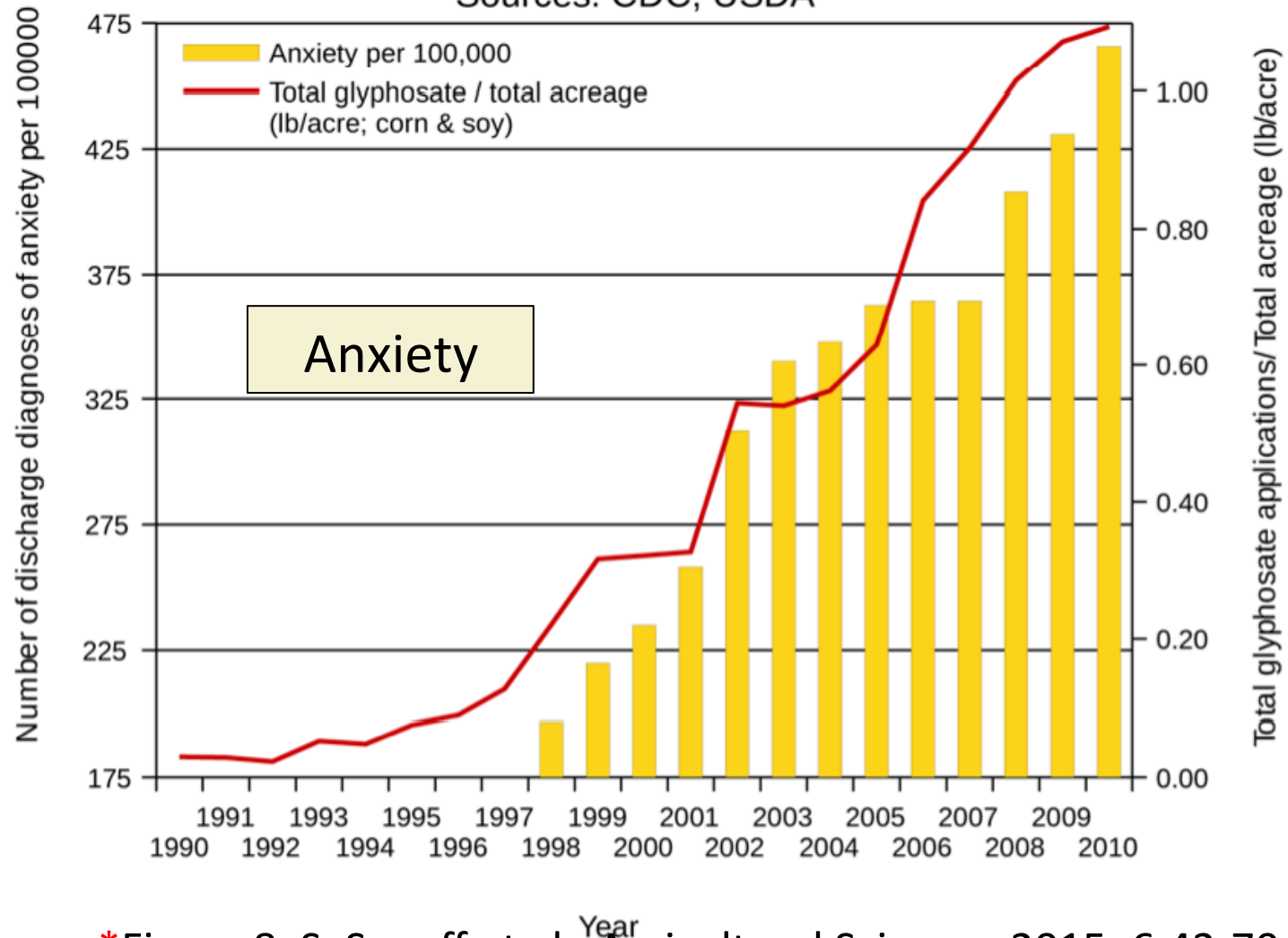


\*Figure 7, S. Seneff et al., Agricultural Sciences 2015; 6:42-70.

# Hospital Discharge Diagnoses of Anxiety (ICD 300) & Glyphosate applied to corn & soy crops

$R = 0.95, p \leq 3.231e-05$

Sources: CDC; USDA



\*Figure 8, S. Seneff et al., Agricultural Sciences 2015; 6:42-70.