

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 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*



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



By **Jen Christensen**, CNN

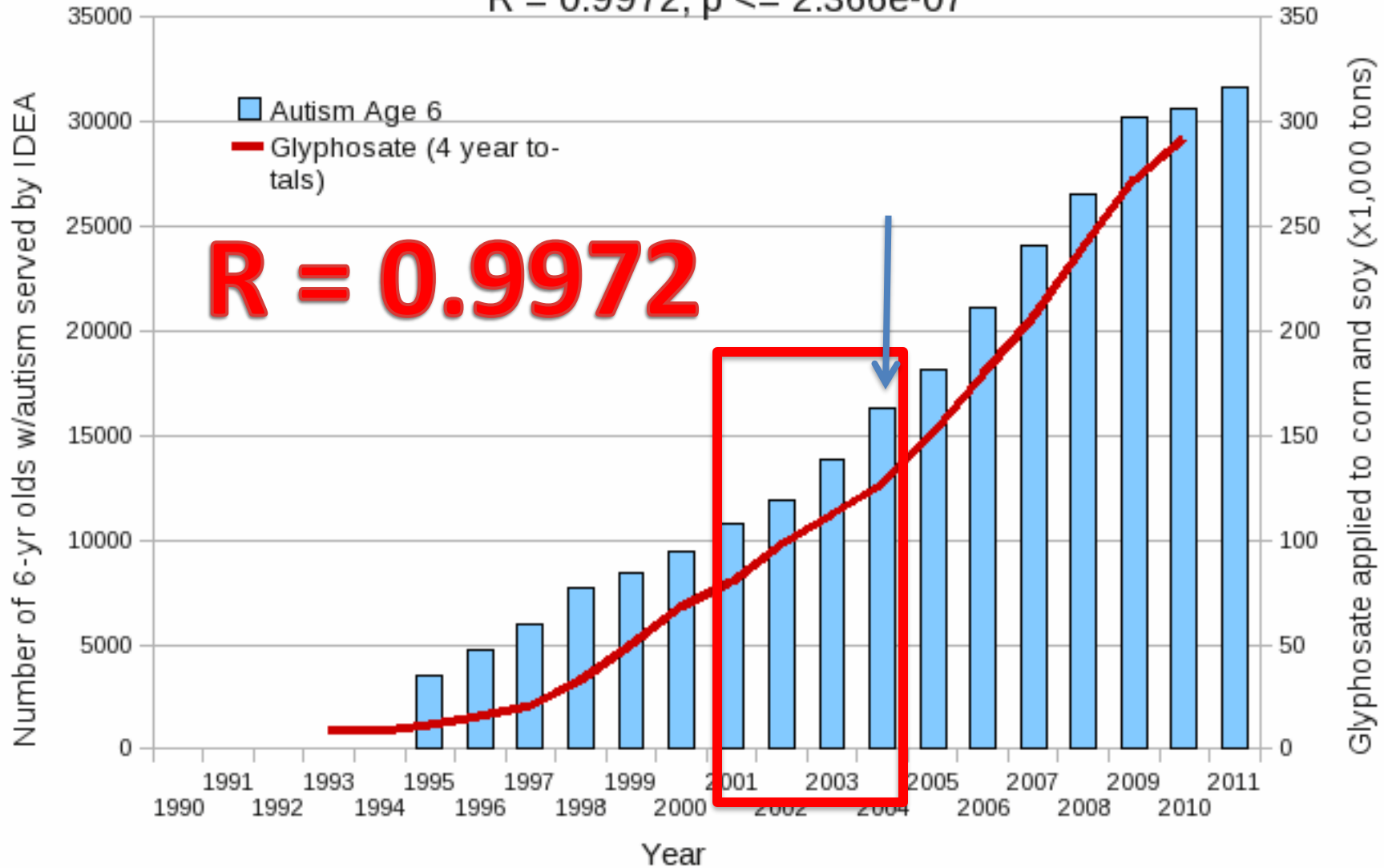
🕒 Updated 7:38 AM ET, Fri June 3, 2016



Autism Prevalence: 6 year olds*

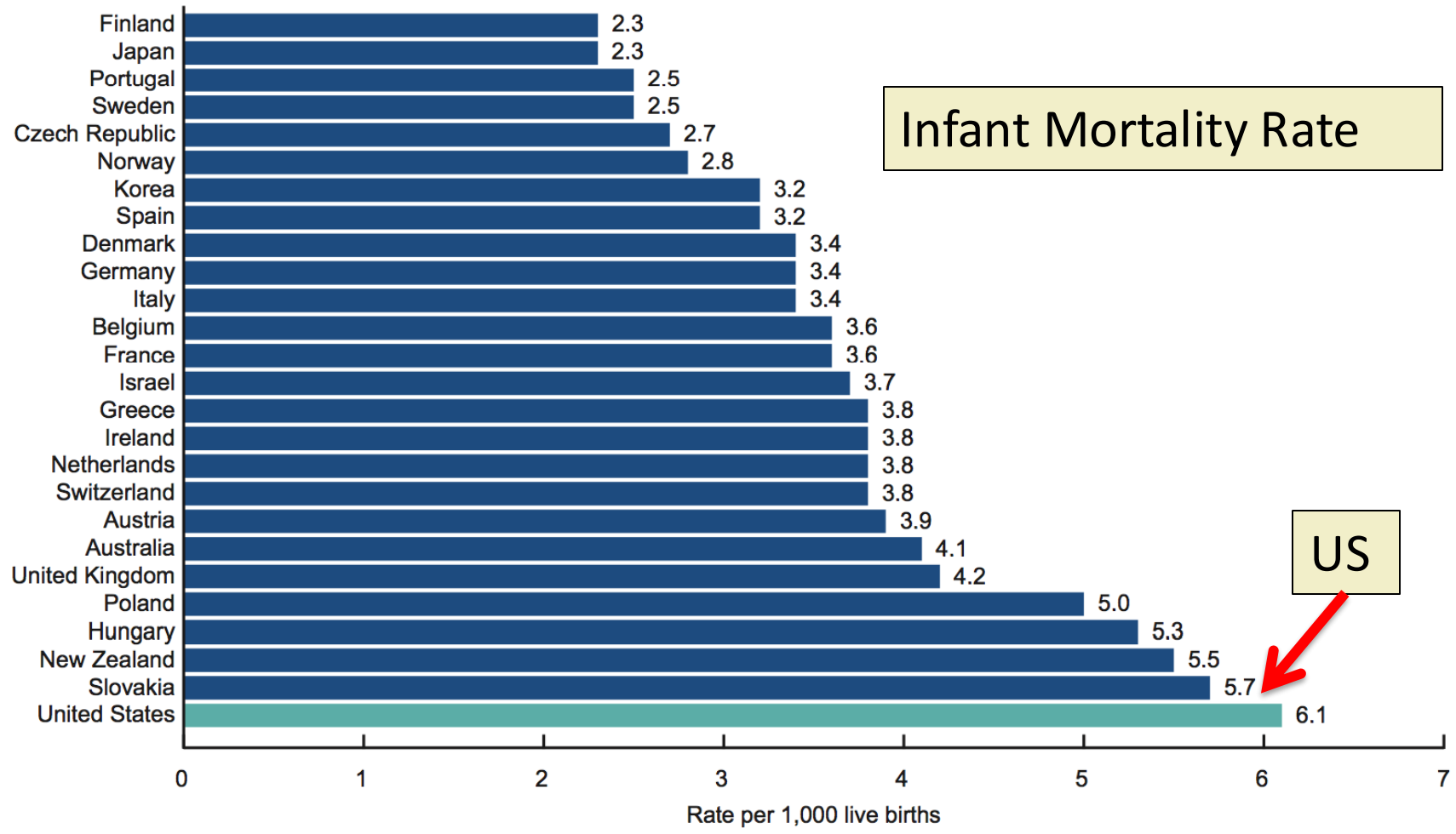
glyphosate is total of year indicated + 3 previous years

$R = 0.9972, p \leq 2.366e-07$



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

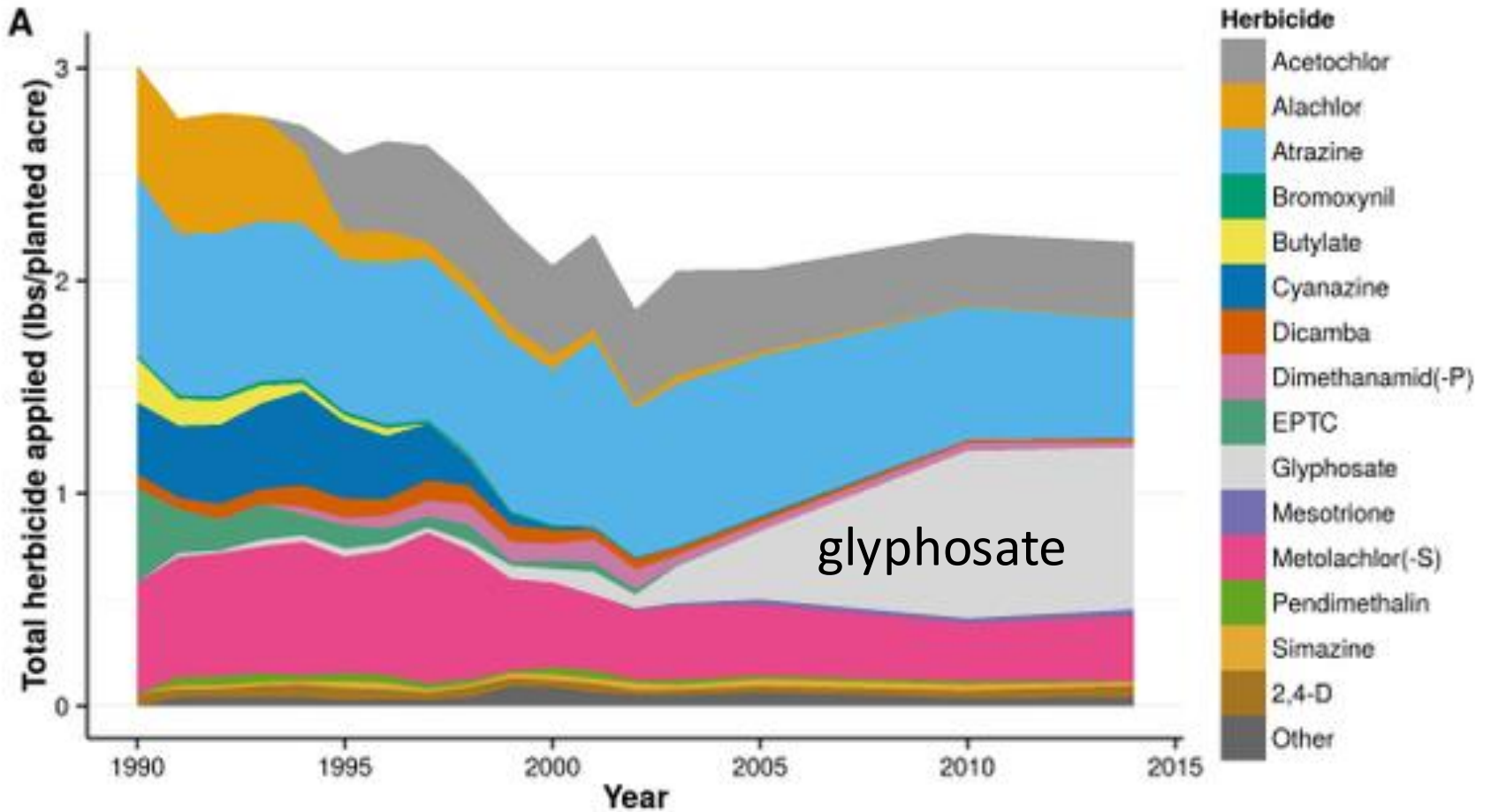
Infant Mortality Rate



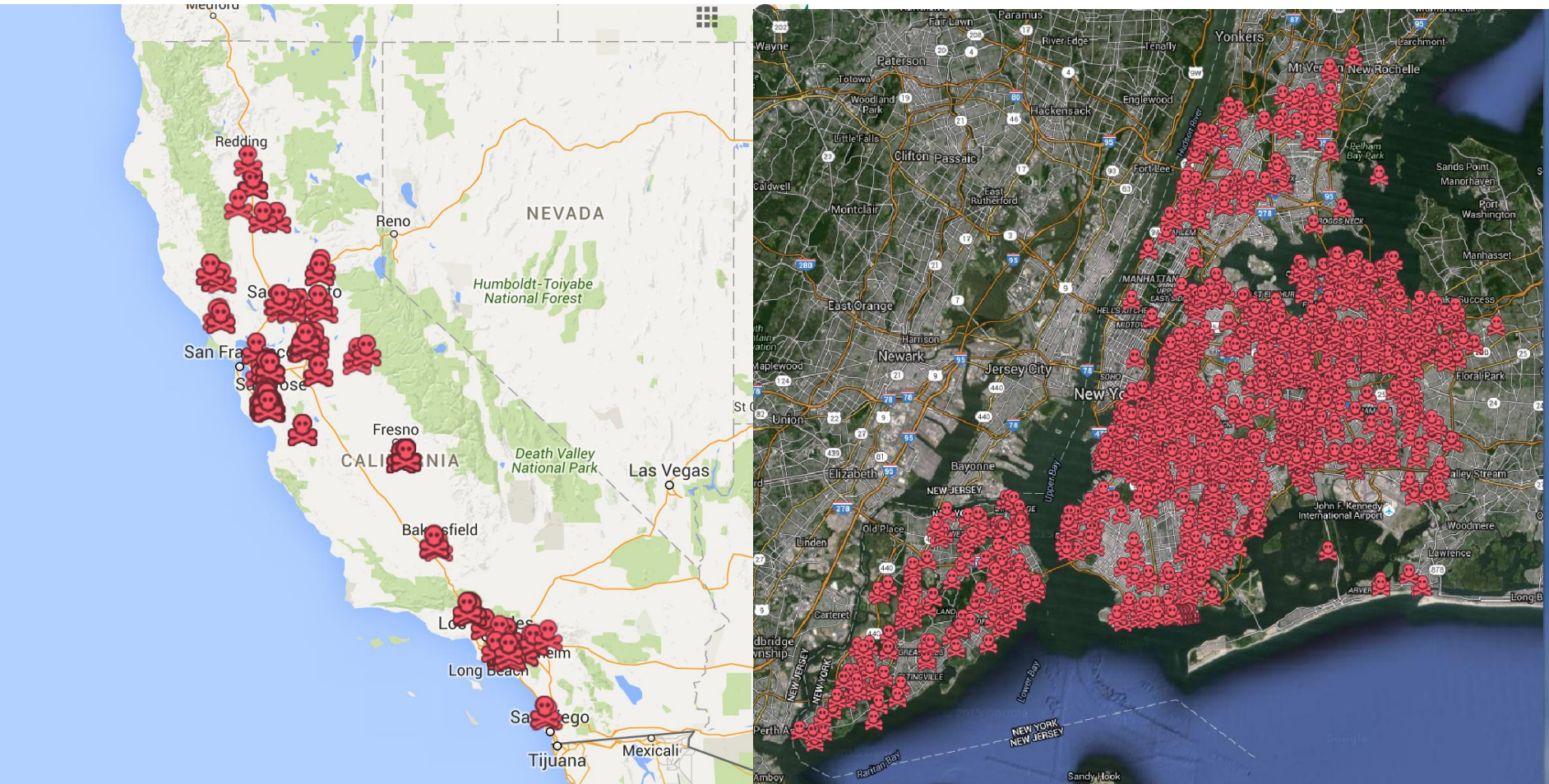
US

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>.

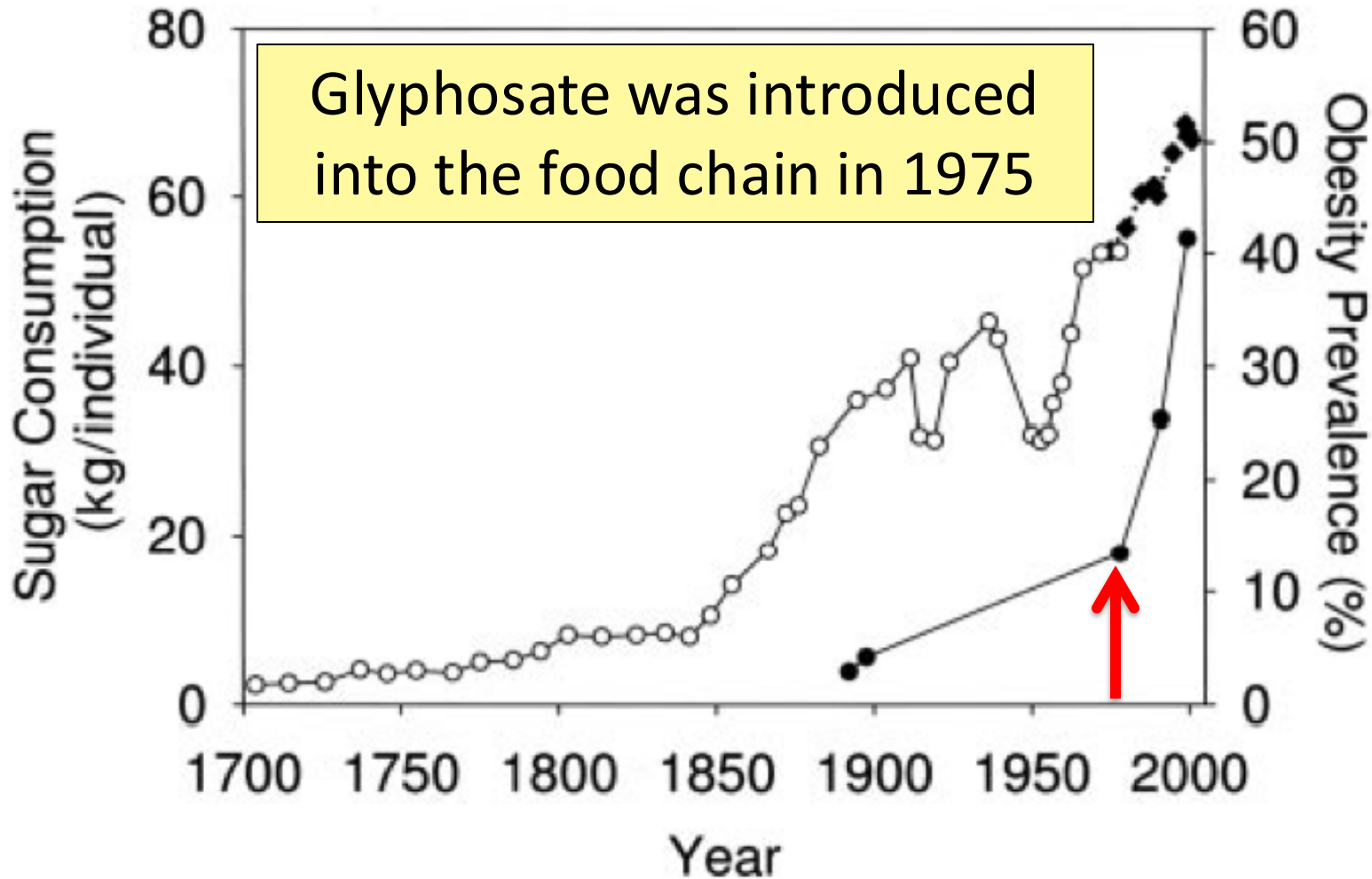
Herbicide Use on Corn in US



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

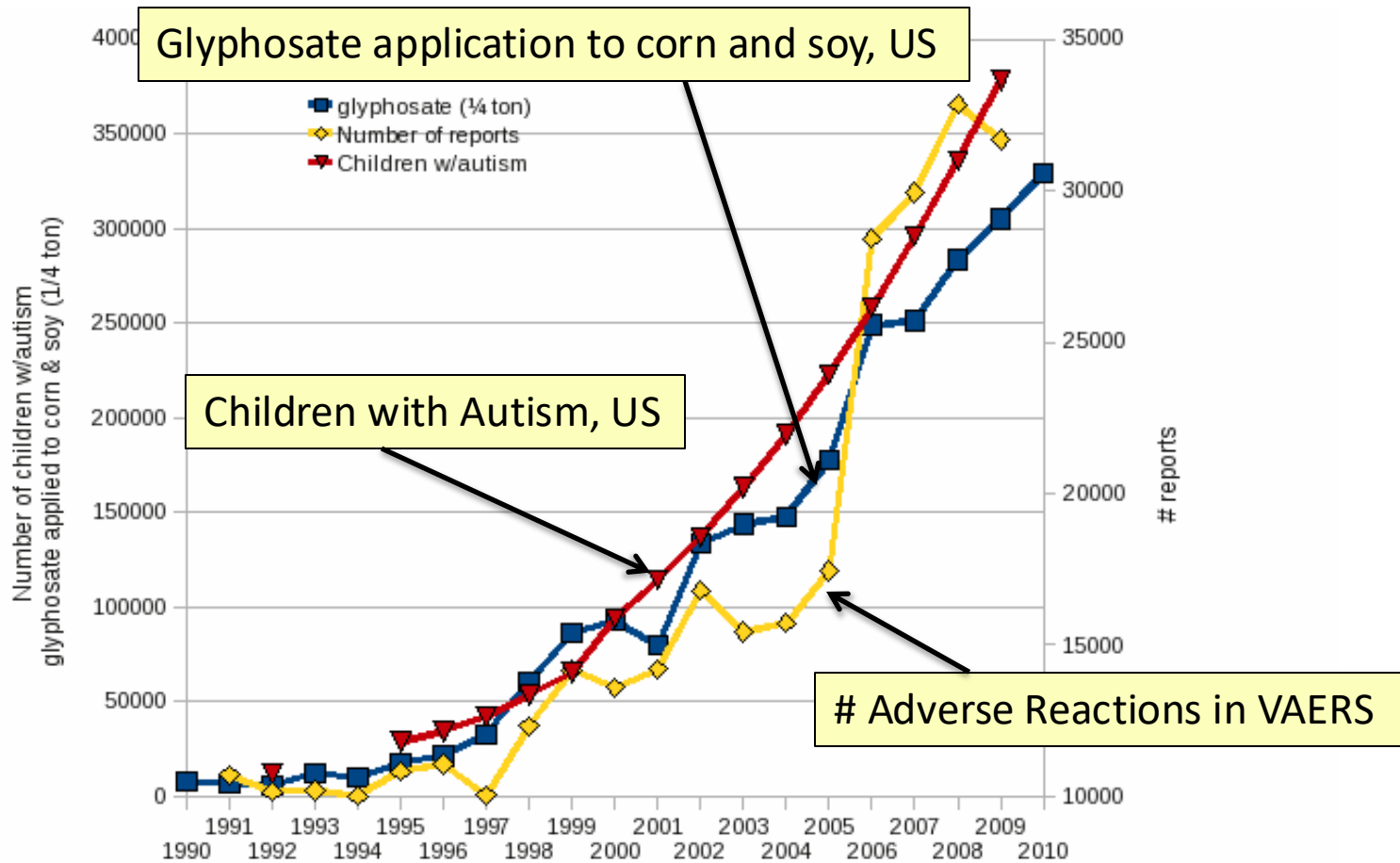


Obesity in US over Time*



*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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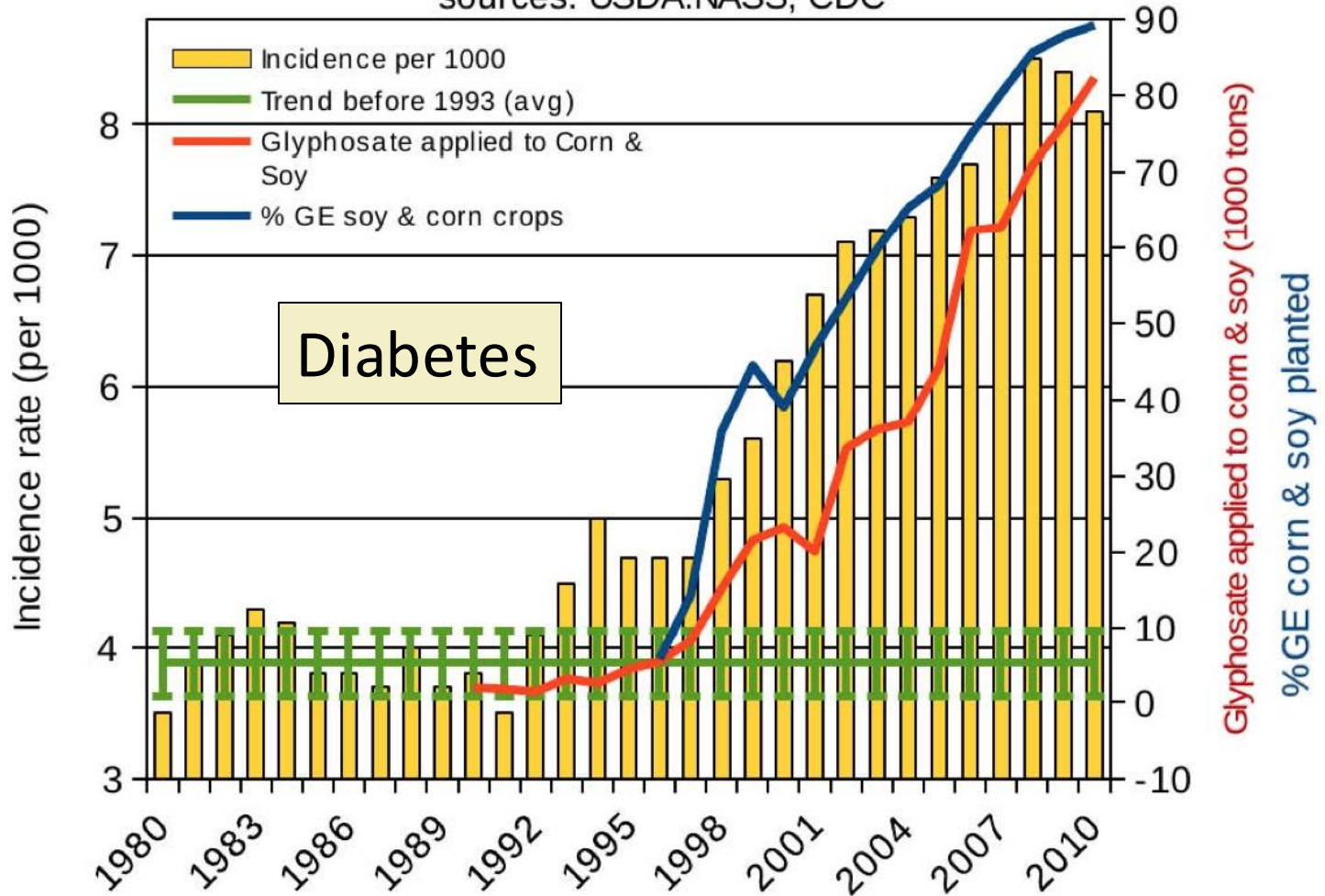
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Annual Incidence of Diabetes (age adjusted)

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

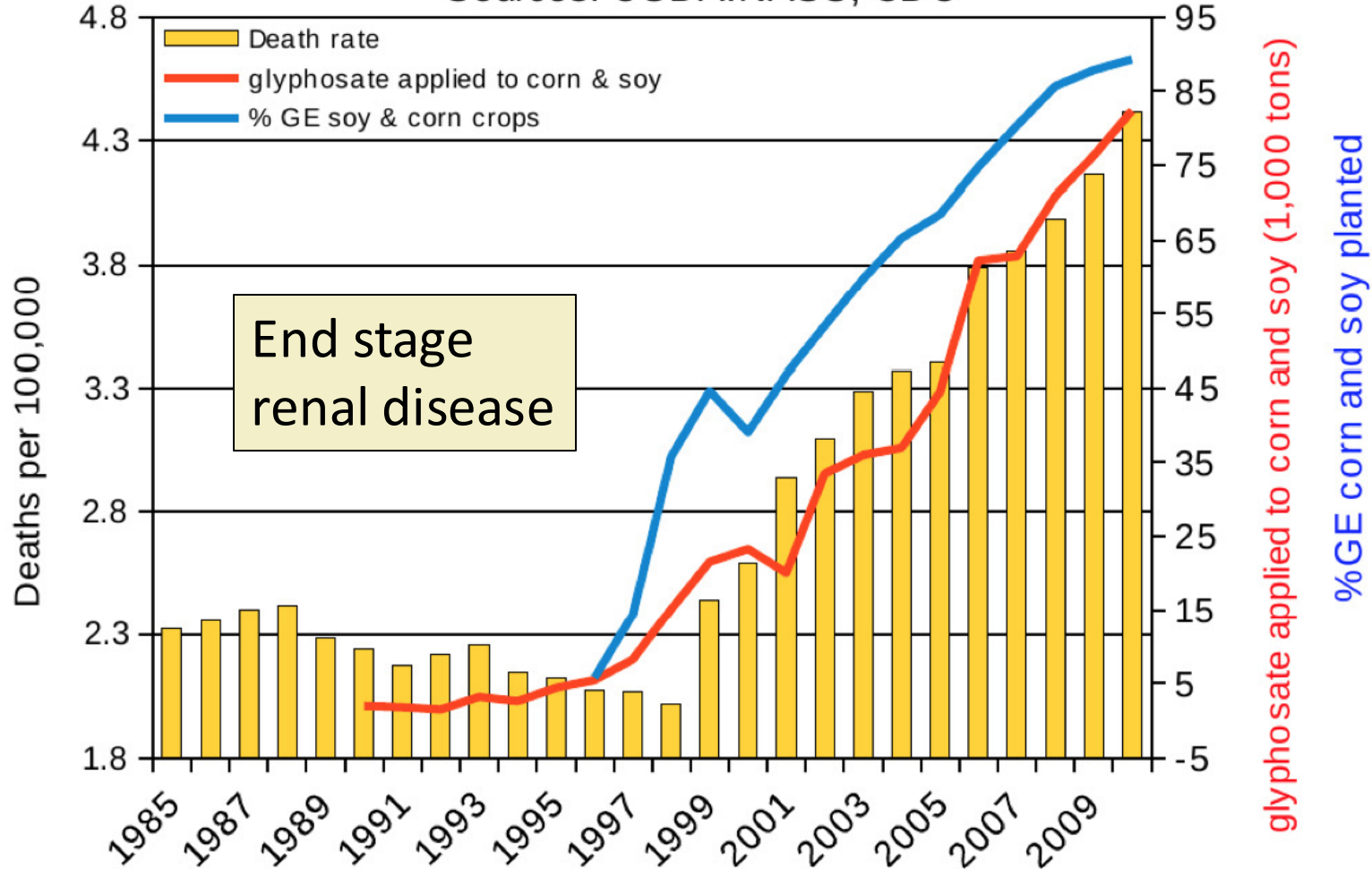


*Figure 14, Swanson et al. Journal of Organic Systems 2014; 9(2):6-37.

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

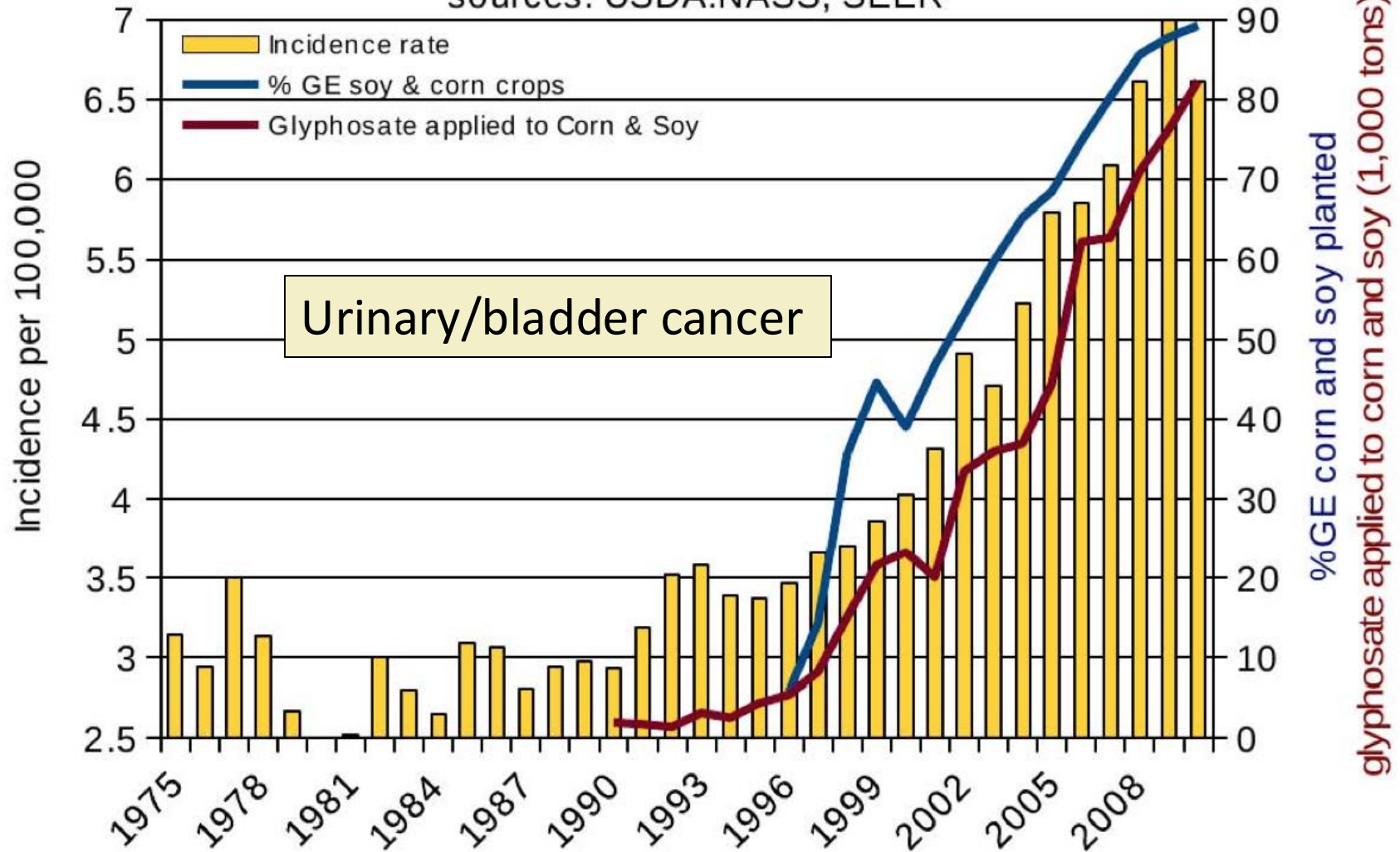


*Figure 18, Swanson et al. Journal of Organic Systems 2014; 9(2):6-37.

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 ($R = 0.981$, $p \leq 4.702e-09$)

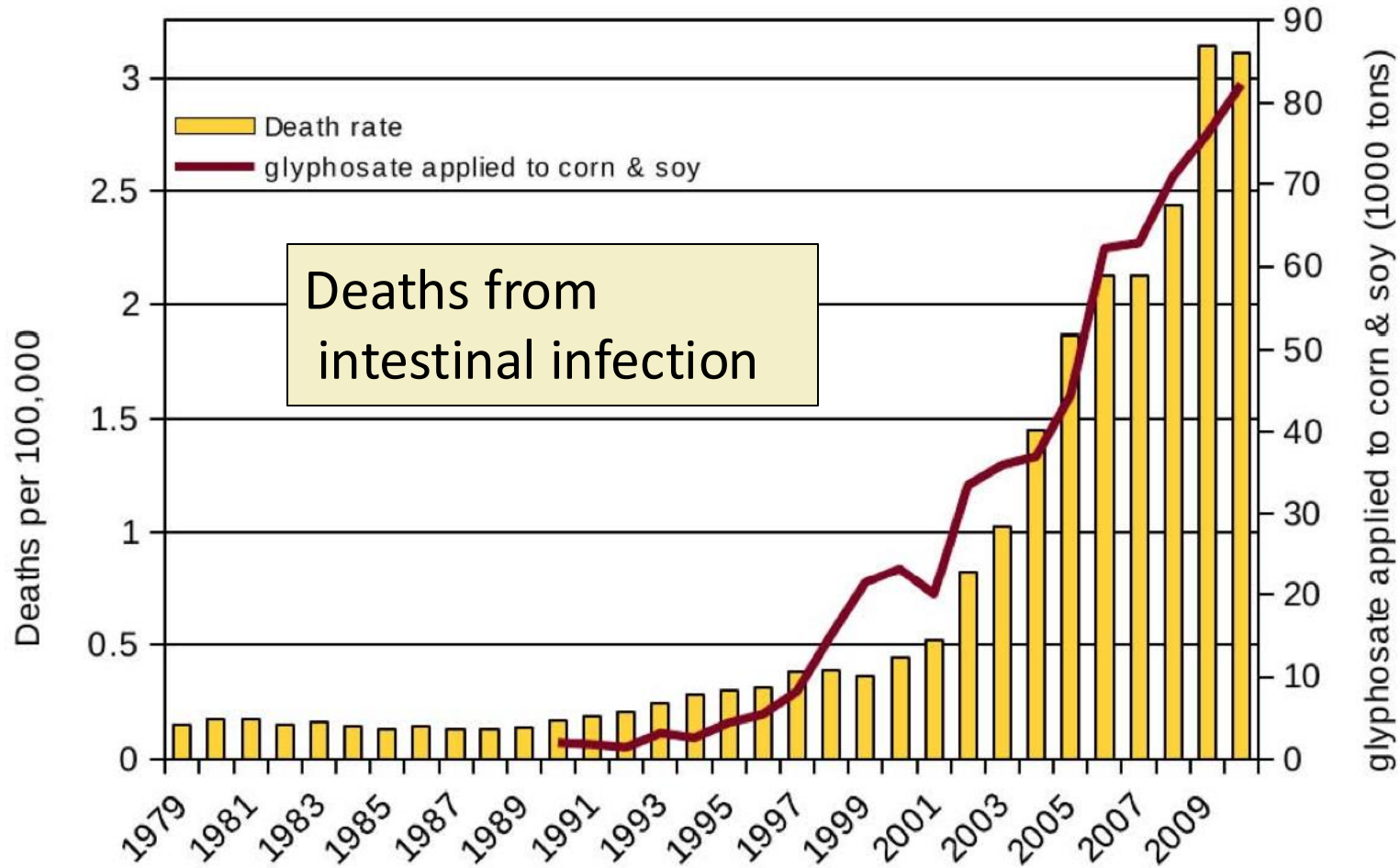
sources: USDA:NASS; SEER



*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)

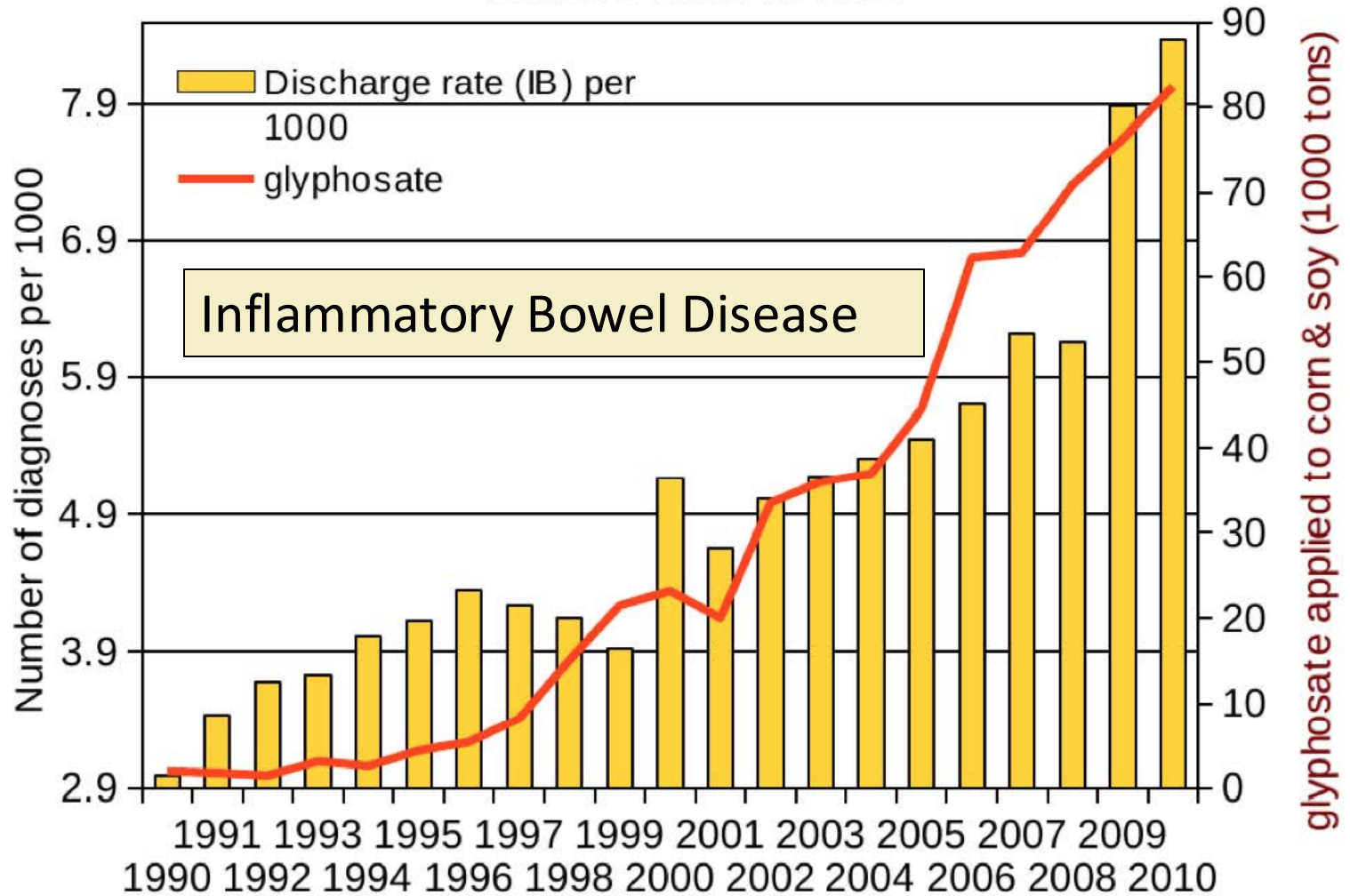
plotted against glyphosate applied to corn & soy ($R = 0.9738$, $p \leq 7.632e-09$)
Sources USDA:NASS; CDC



*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)

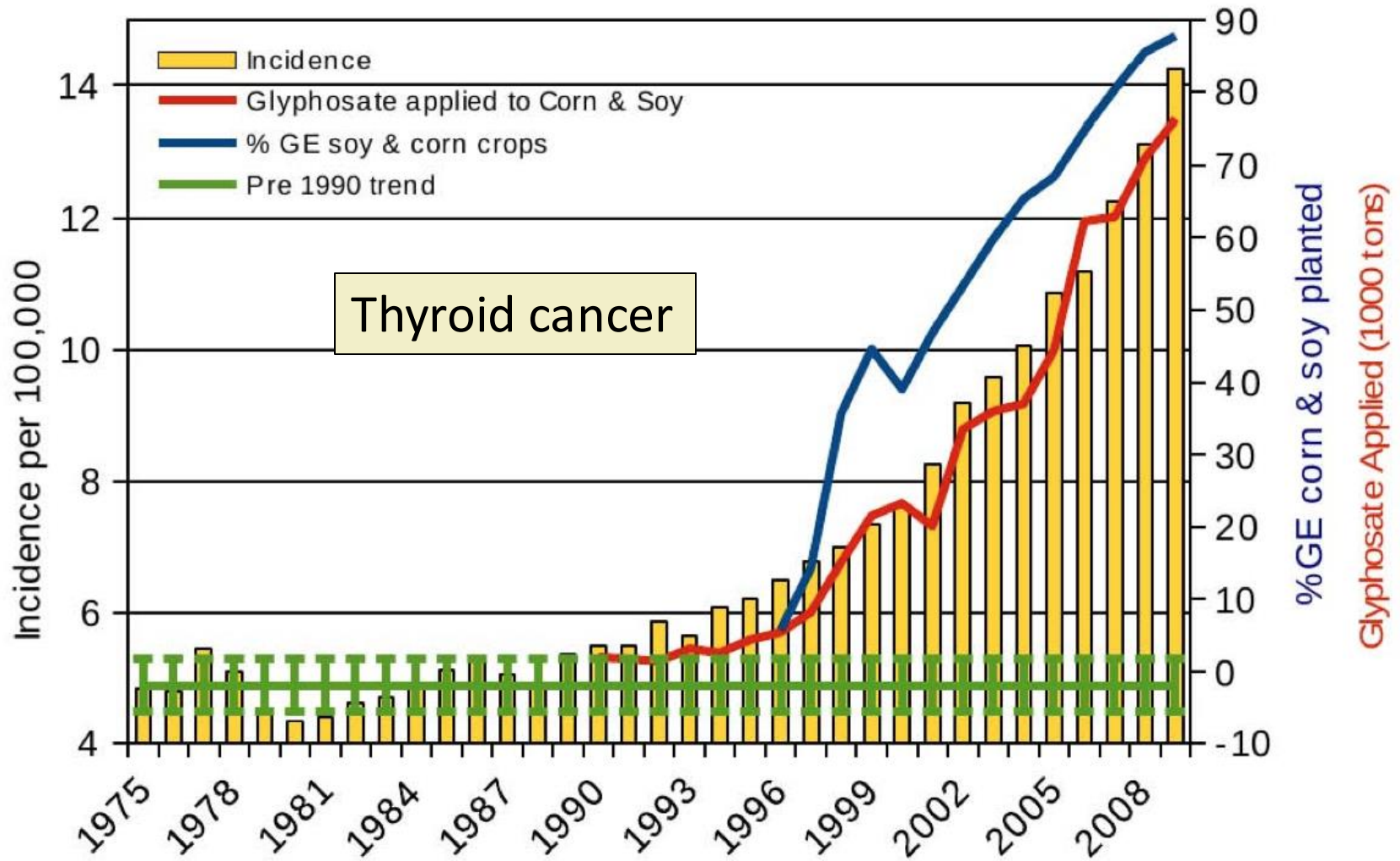
plotted against glyphosate applied to corn & soy ($R = 0.9378$, $p \leq 7.068e-08$)
Sources: USDA & CDC



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

Thyroid Cancer Incidence Rate (age adjusted)

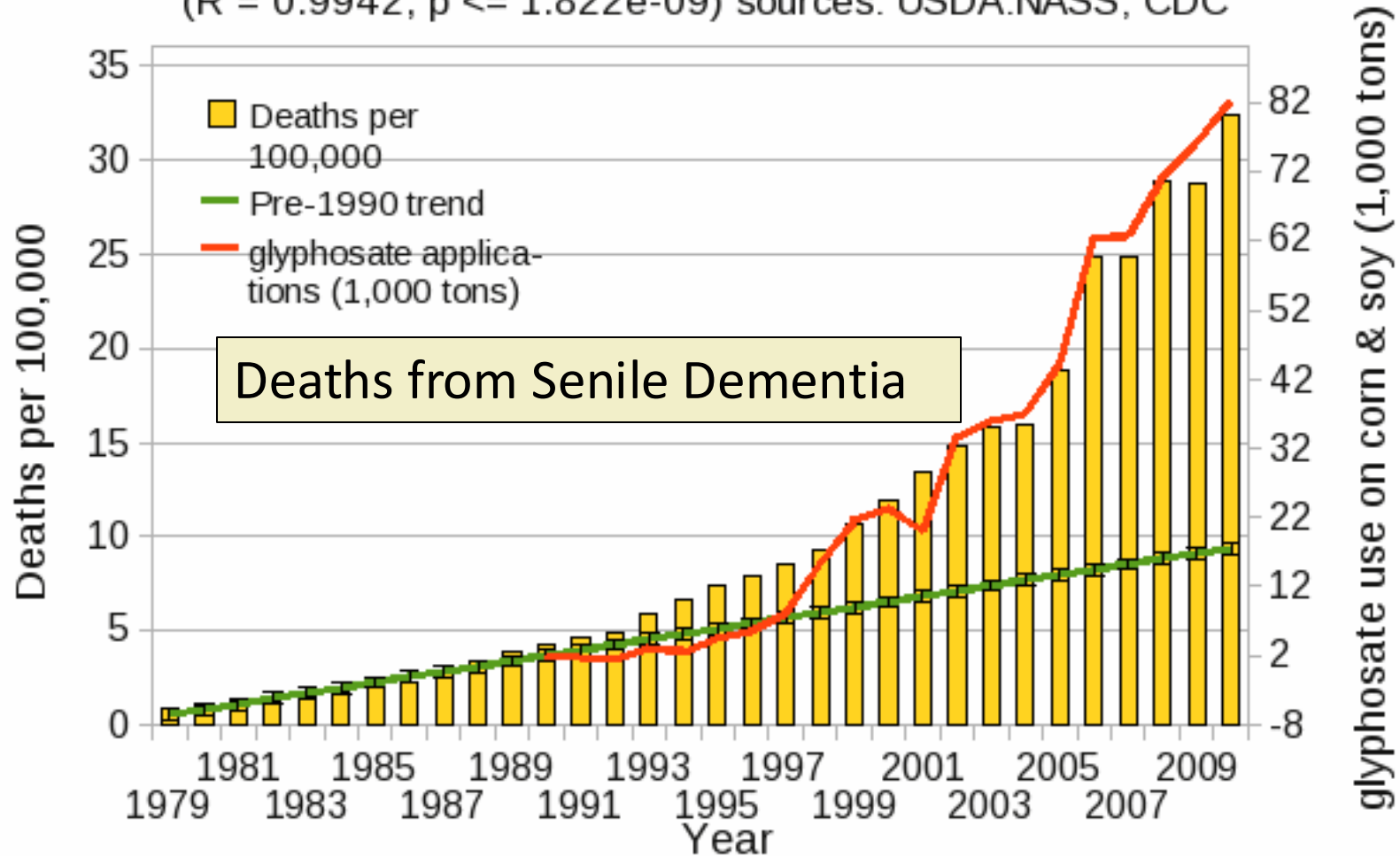
plotted against glyphosate applied to U.S. corn & soy ($R = 0.988$, $p \leq 7.612e-09$)
along with %GE corn & soy crops $R = 0.9377$, $p \leq 2.152e-05$
sources: USDA:NASS; SEER



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

Age Adjusted Deaths from Senile Dementia (ICD F01, F03 & 290)

plotted against glyphosate applications on corn & soy
($R = 0.9942$, $p \leq 1.822e-09$) sources: USDA:NASS; CDC

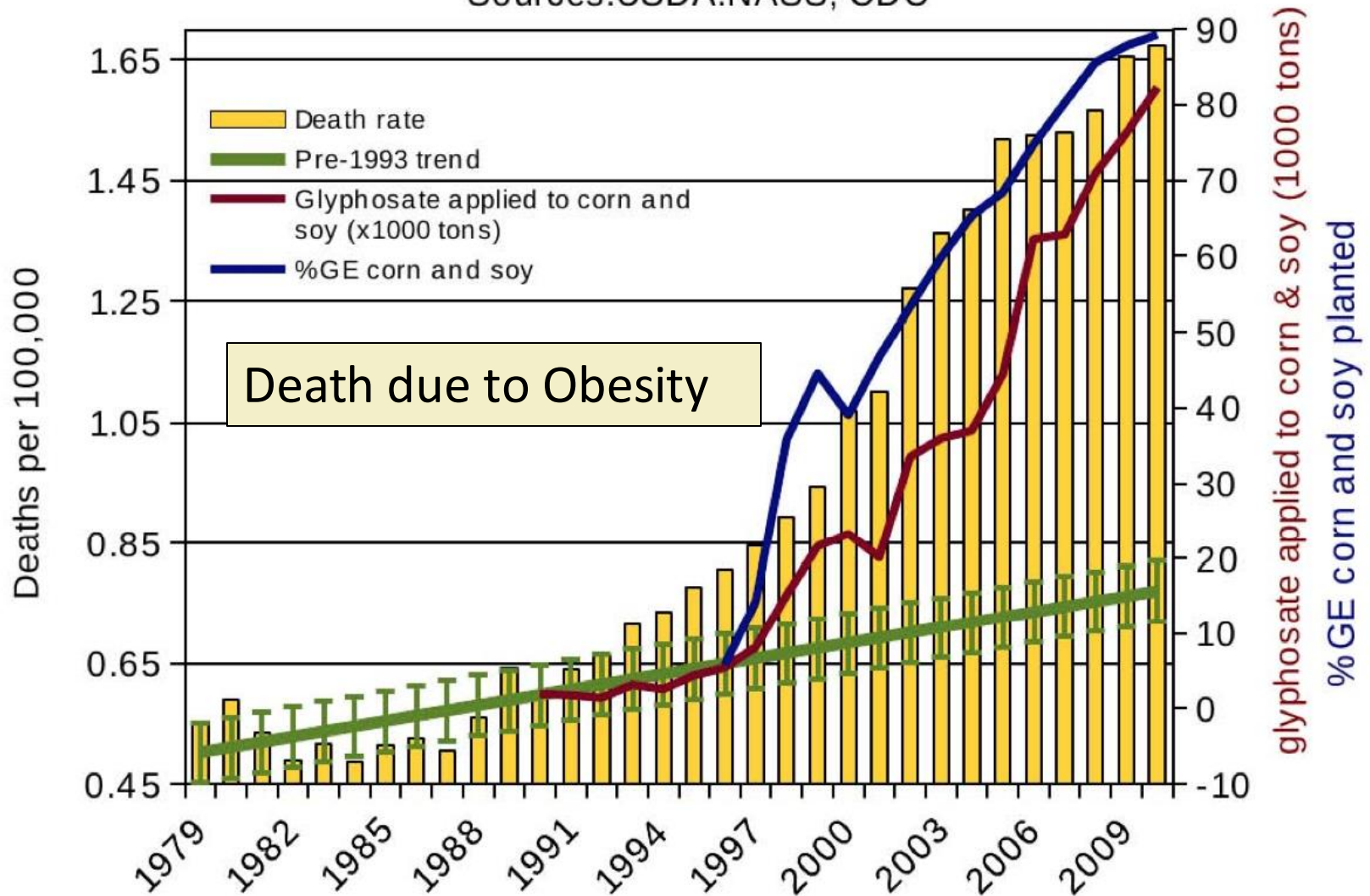


*Figure 24, Swanson et al. Journal of Organic Systems 2014; 9(2):6-37.

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

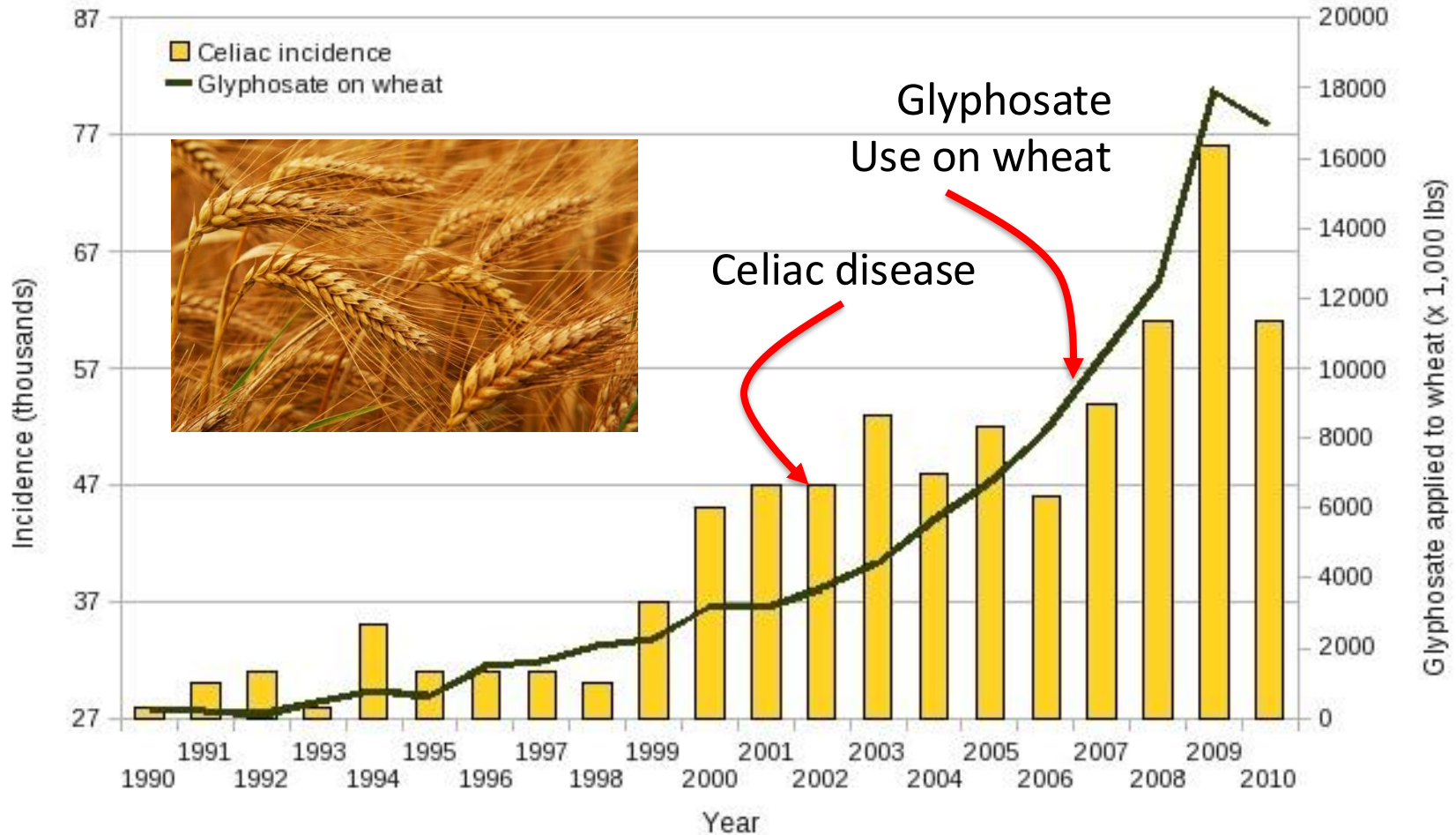
Glyphosate, pathways to modern diseases II: Celiac sprue and gluten intolerance

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Glyphosate and Celiac Disease*



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



The High Cost of Pesticides: Human and Animal Diseases

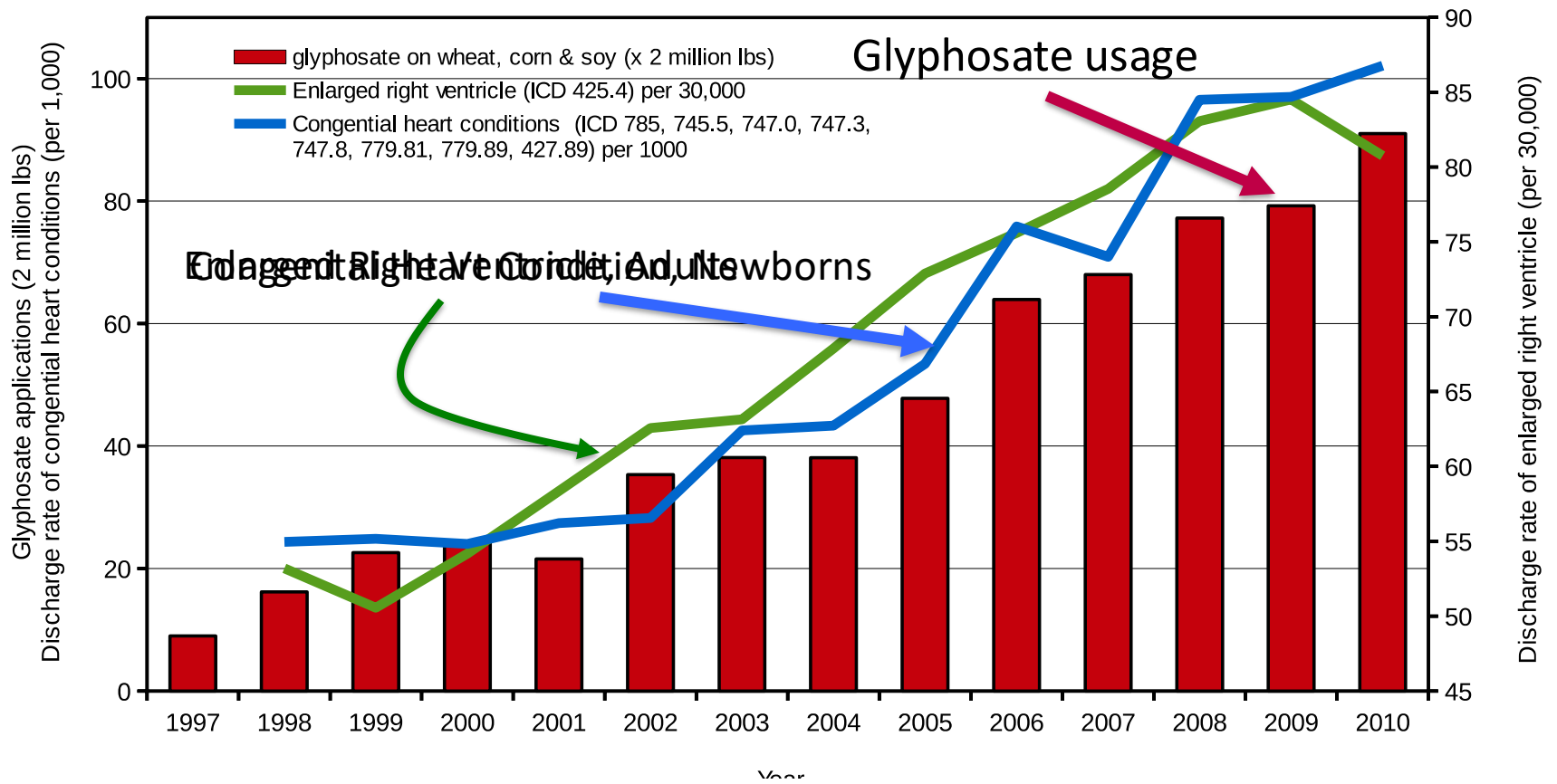
Judy Hoy¹, Nancy Swanson² and Stephanie Seneff^{3*}

¹*Independent Researcher, Stevensville, MT, USA*

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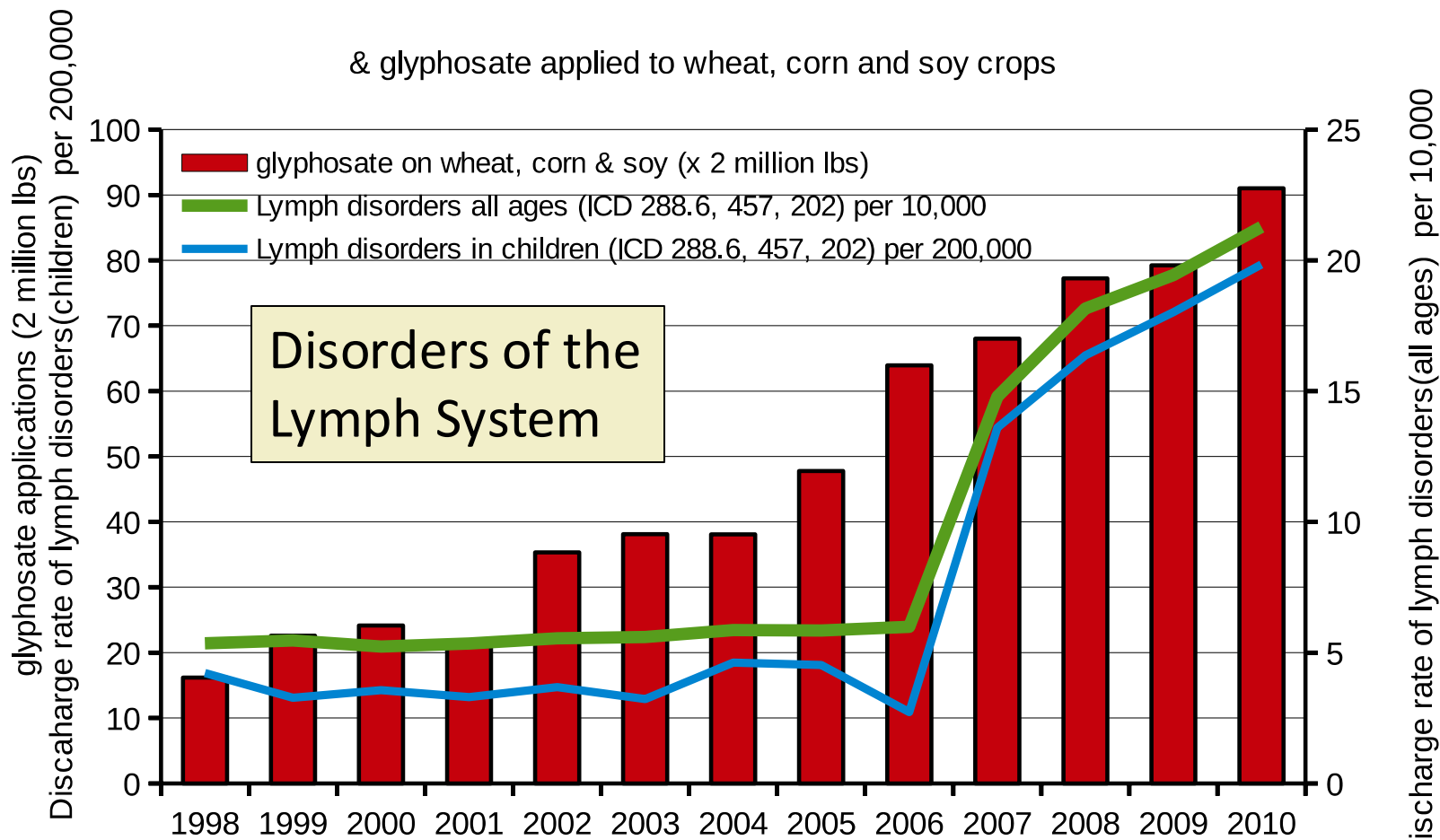
³*Computer Science and Artificial Intelligence Laboratory, Massachusetts Institute of Technology, USA*

Glyphosate and Heart Disease*



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

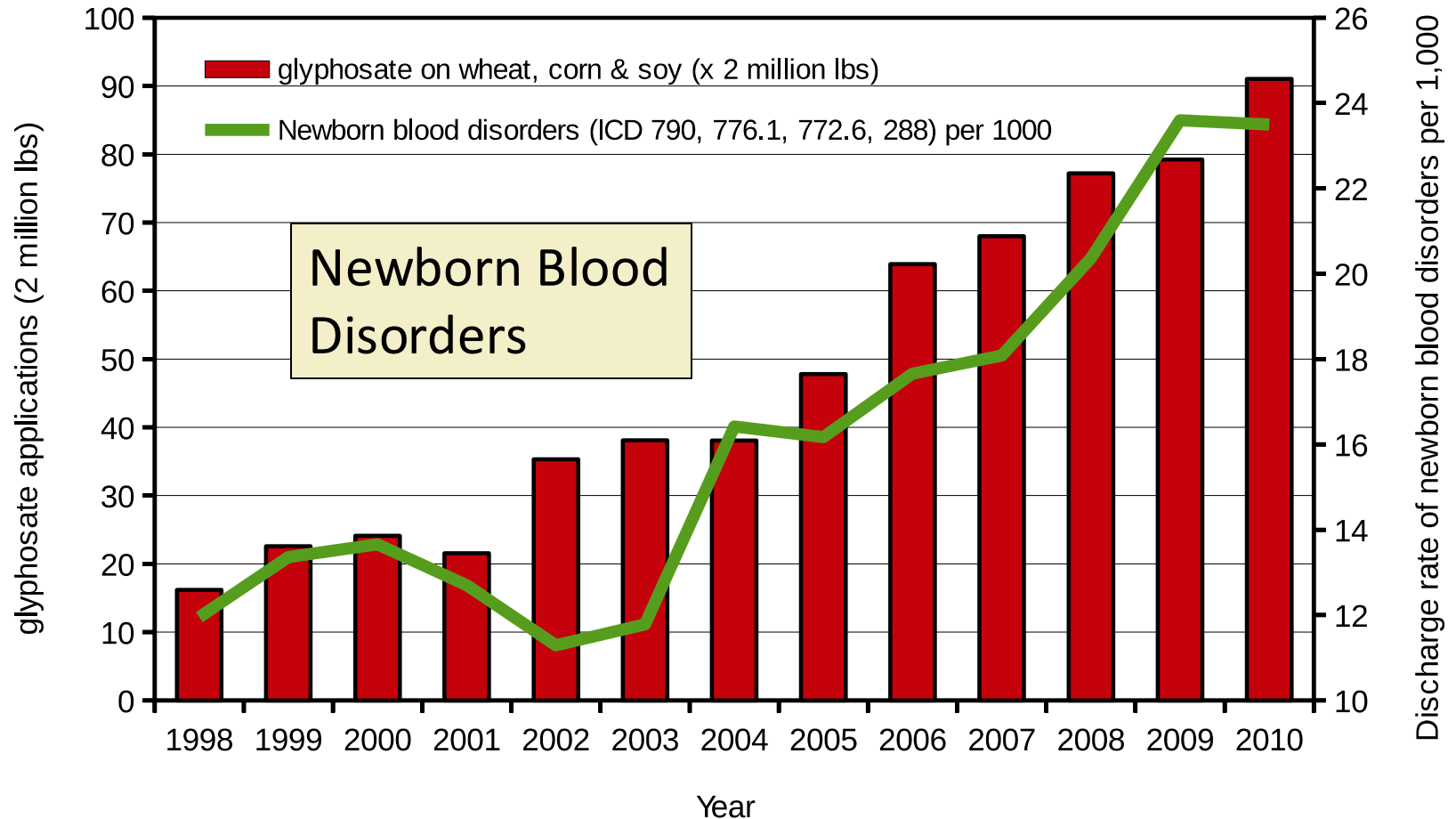
& glyphosate applied to wheat, corn and soy crops



* 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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²Independent Researcher, Abacus Enterprises, Lummi Island, WA, USA

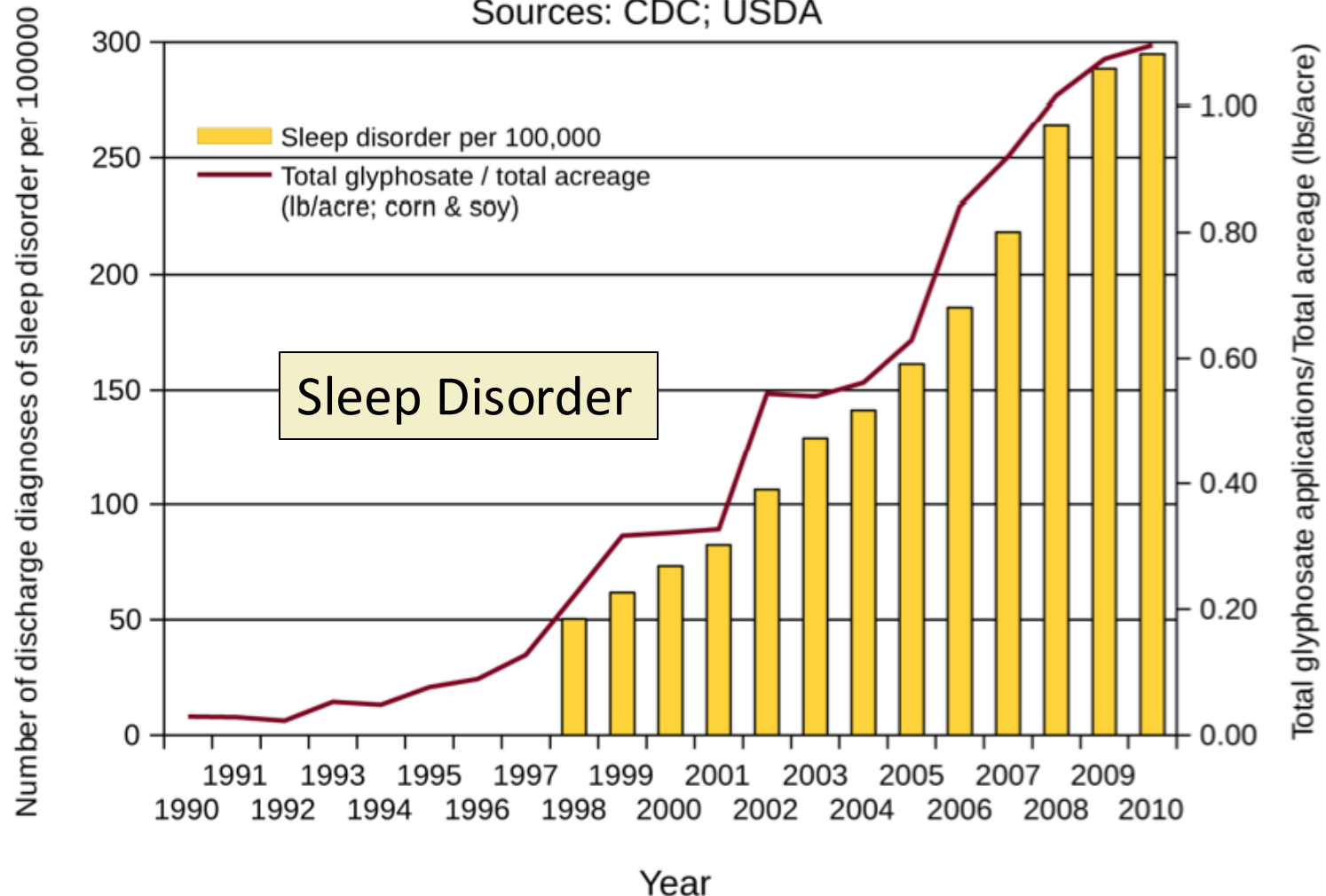
Email: *seneff@csail.mit.edu

Hospital Discharge Diagnoses of Sleep Disorders (ICD 327, 780.50-59, 307.41-49)

& Glyphosate applied to corn & soy crops

$R = 0.9876$, $p < 7.744e-06$

Sources: CDC; USDA

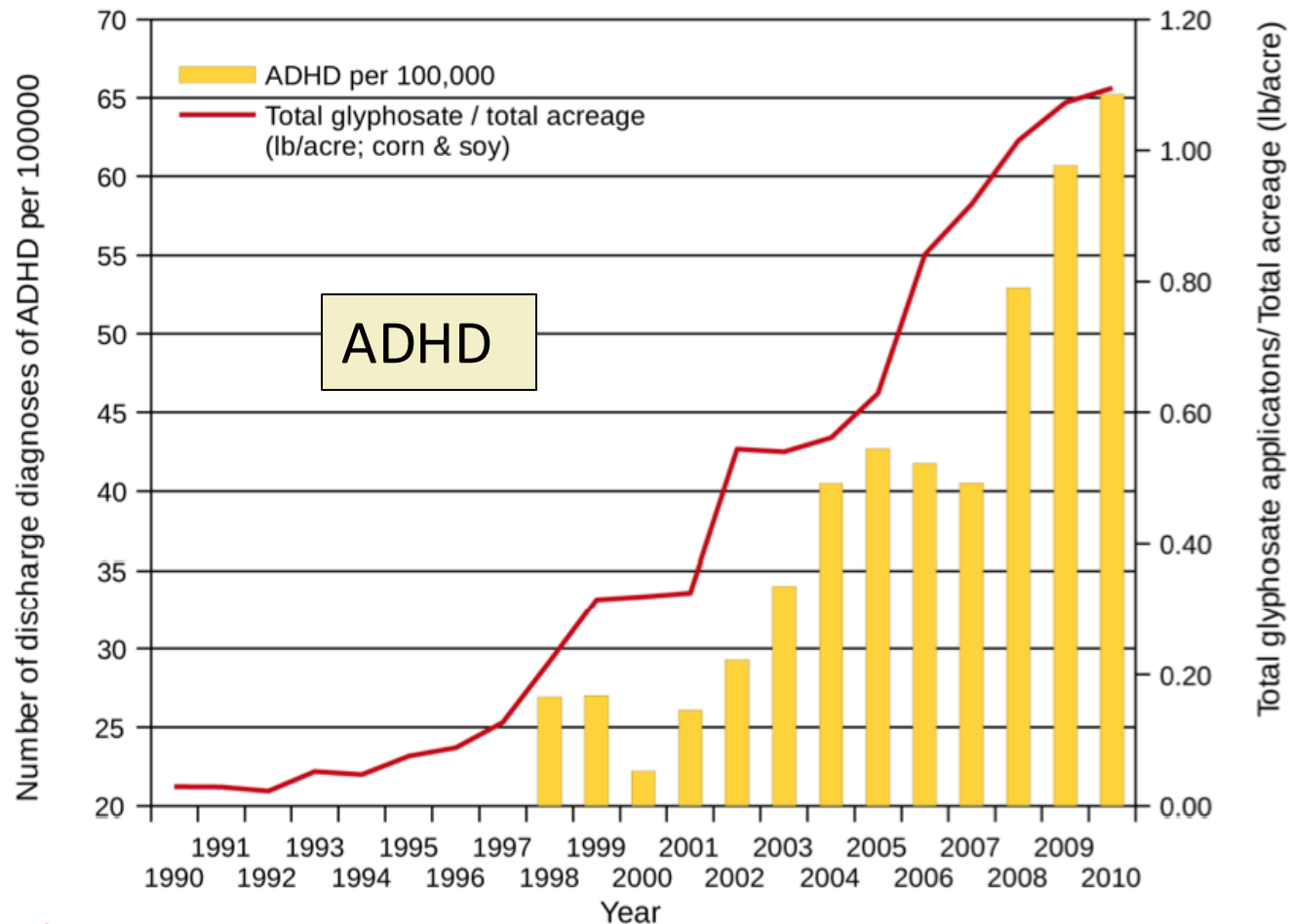


*Figure 5, S. Seneff et al., Agricultural Sciences 2015; 6:42-70.

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

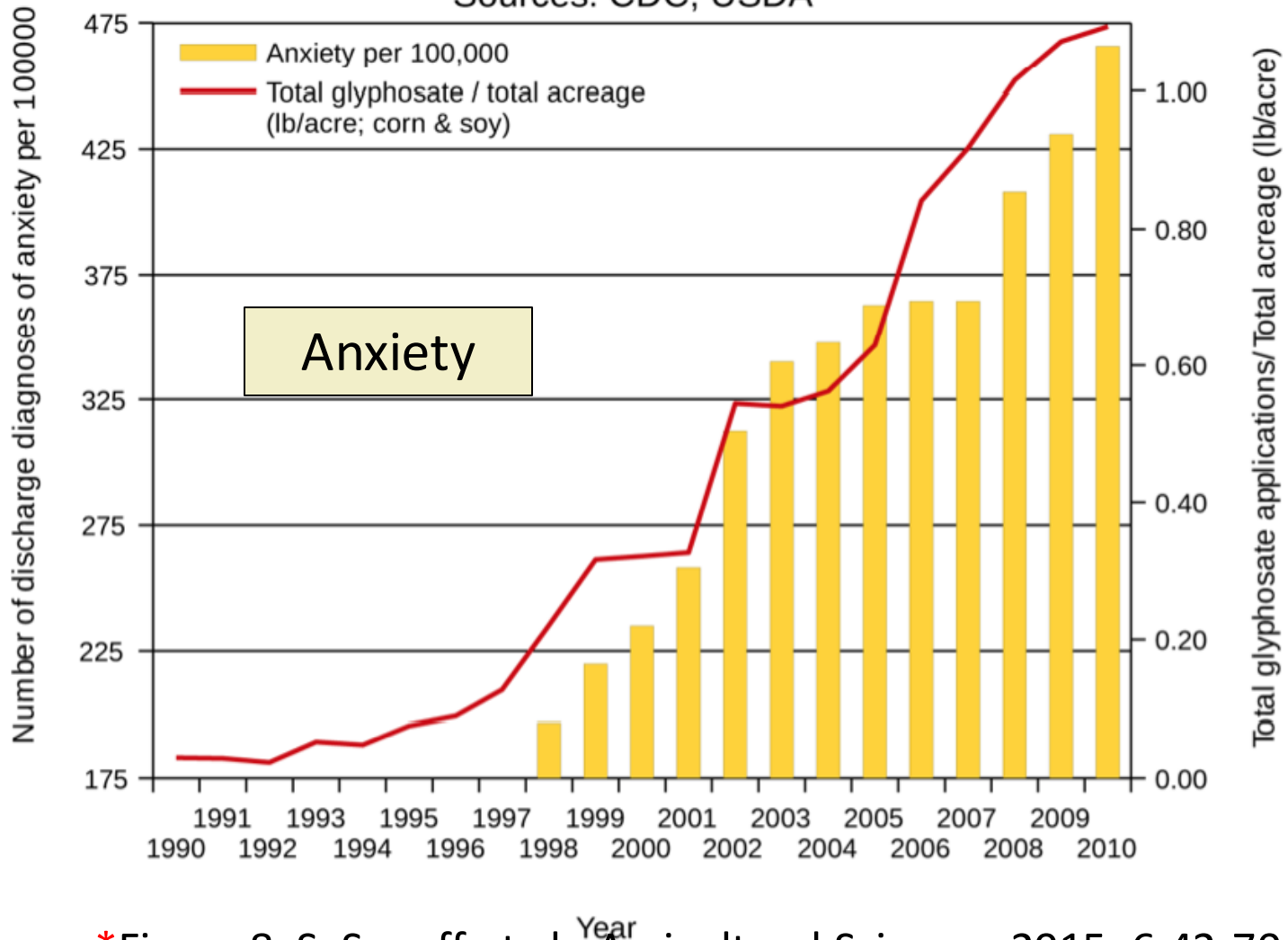


*Figure 7, S. Seneff et al., *Agricultural Sciences* 2015; 6:42-70.

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

R = 0.95, p <= 3.231e-05

Sources: CDC; USDA



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