Context Effect of Self-Rated Health and Its Cultural Sensitivity

Sunghee Lee, Grant Benson, Beth-Ellen Pennell

University of Michigan

Self-Rated Health (SRH)

"In general, how would you rate your health?"

- Methodologically, so-so.
  - Large room for measurement error
- Empirically, great!
  - Asked in numerous surveys around the world
  - Strong predictor of mortality and morbidity
  - Caveat: Research mainly on English-speaking populations and some Scandinavian populations

Sensitivity of SRH#

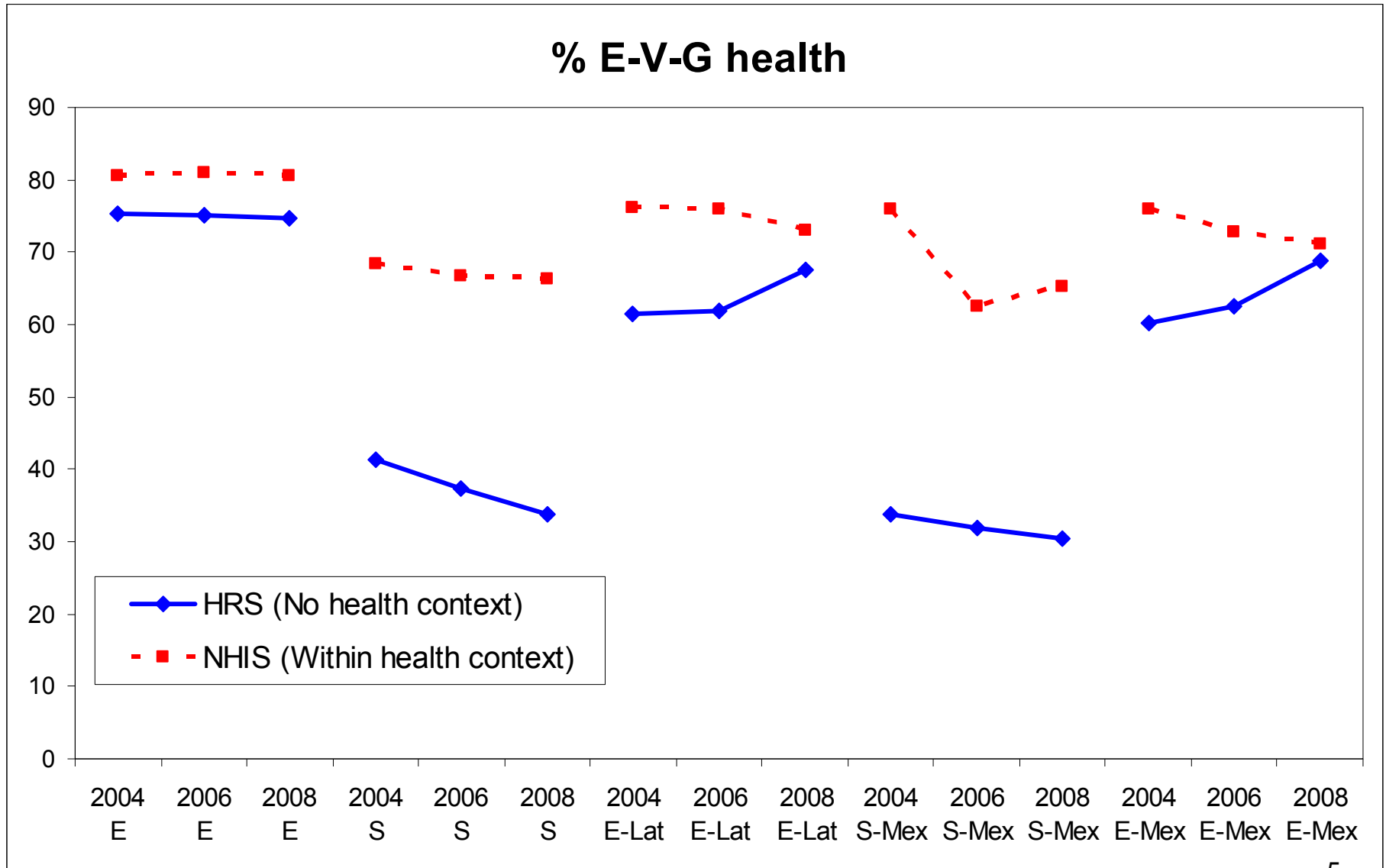## % E-V-G Health in California Health Interview Survey
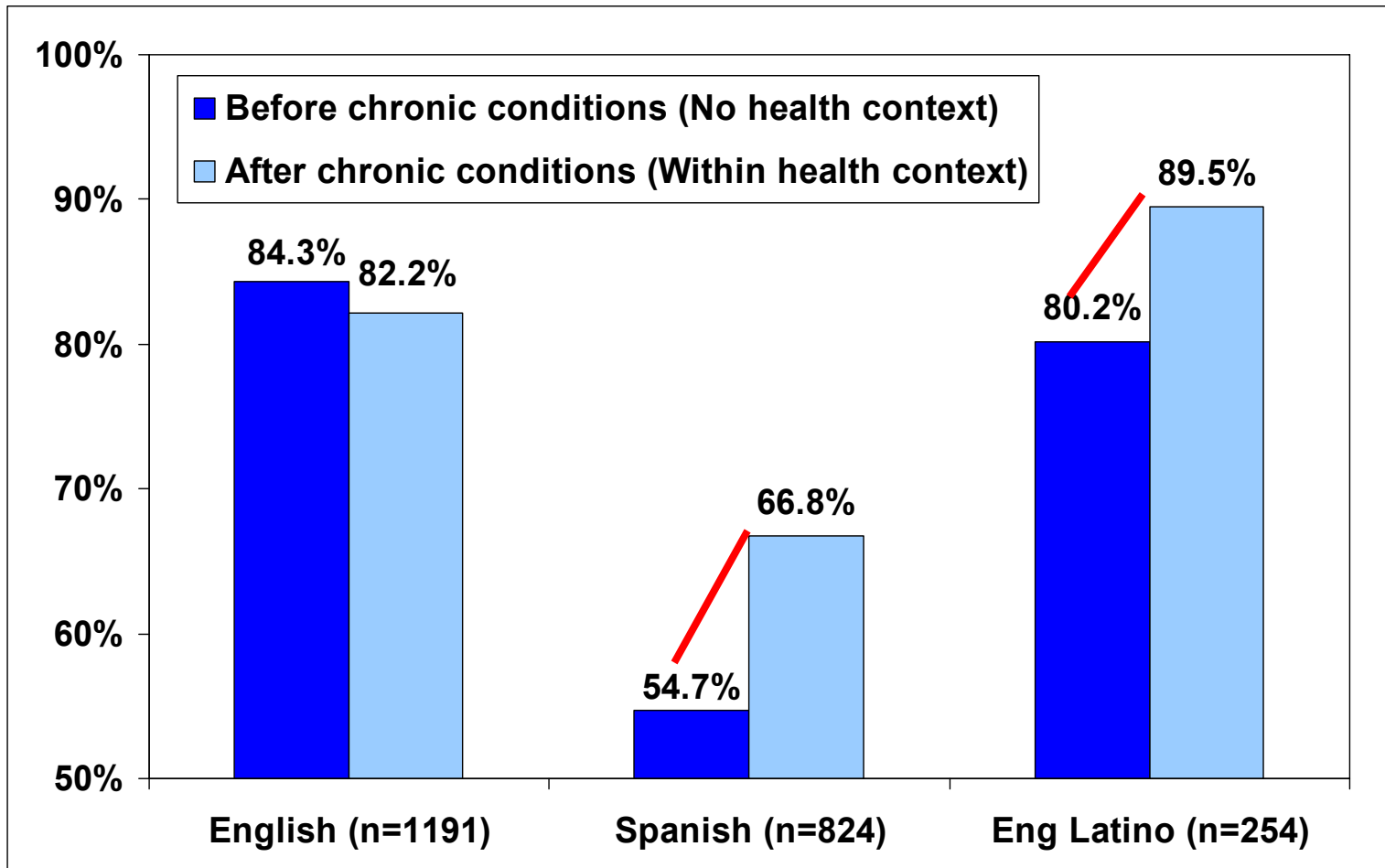
#Lee and Grant (2009) *Am. J. Epi.*

HRS vs. NHIS

- Health and Retirement Study
  - SRH asked as the first question
- National Health Interview Survey
  - SRH asked in the middle of questionnaire after a long series of detailed health conditions
- Comparison of estimates of ages 50+
  - Observational context effect
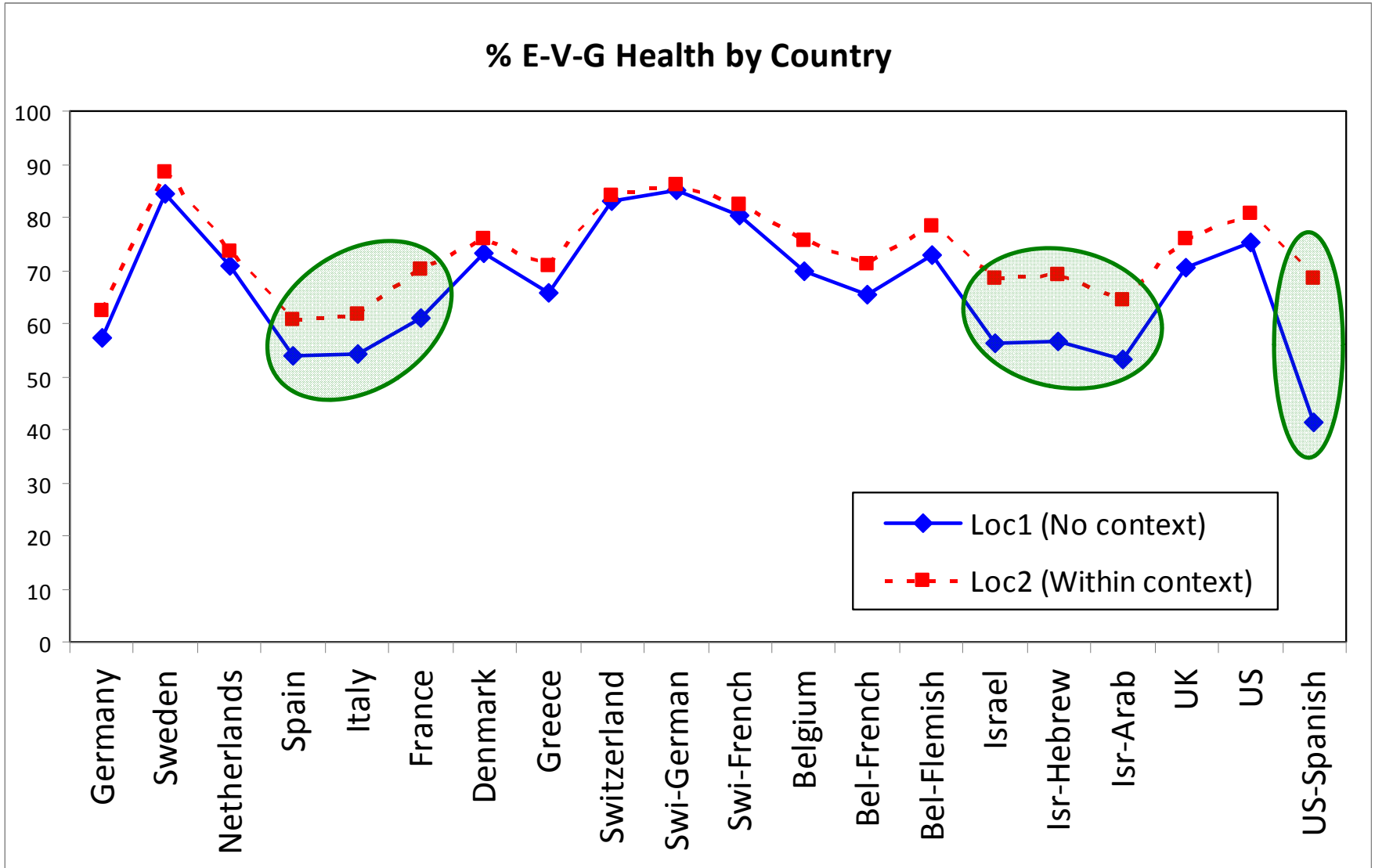
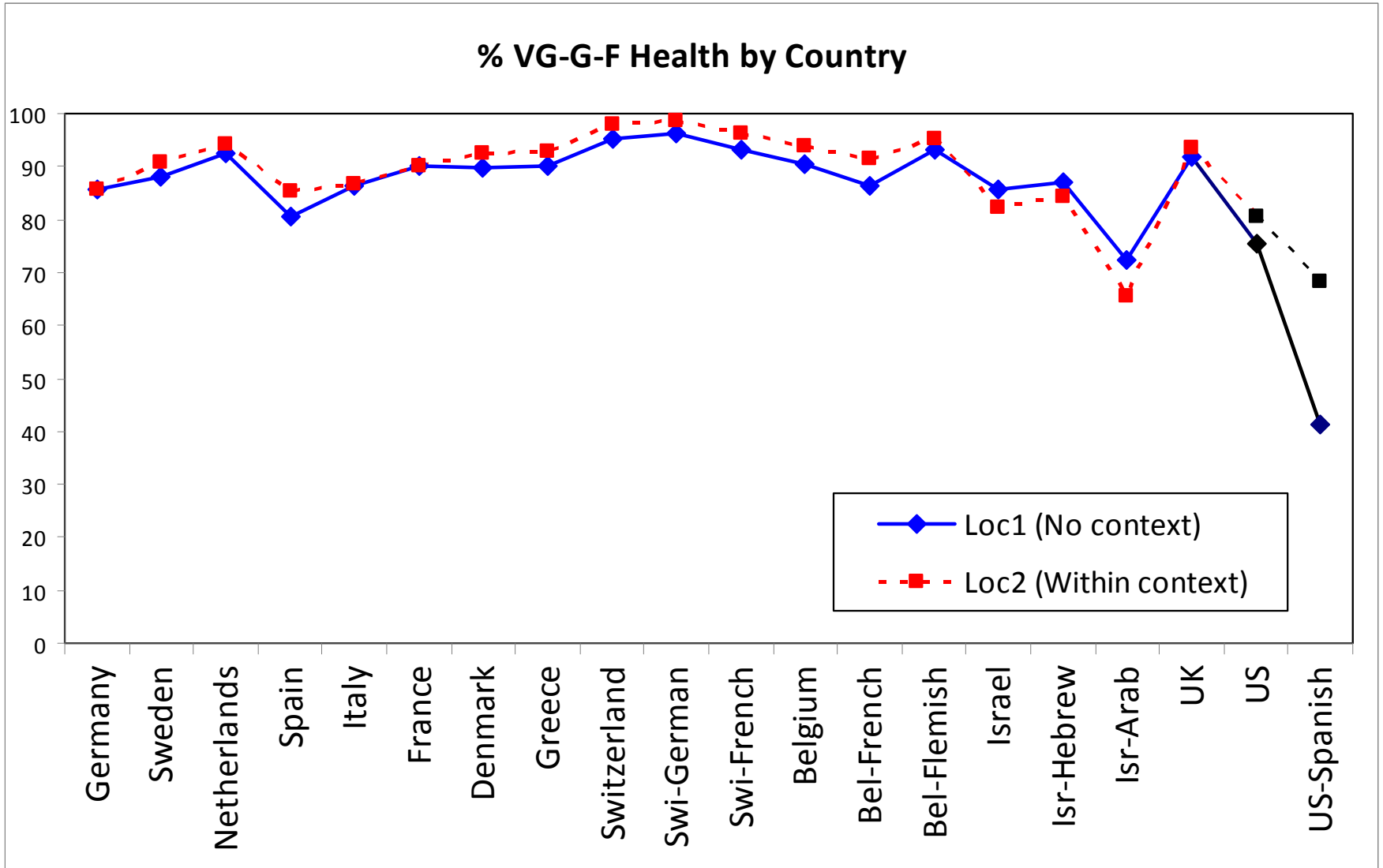# HRS vs. NHIS

% E-V-G health

ELSA and SHARE

- English Longitudinal Study of Ageing and Survey of Health, Ageing and Retirement in Europe
  - W1 includes an experiment on SRH*
  - Within subject, SRH was asked twice at different locations with different scales

* Appears to be designed for comparing SRH response scales originally but question location was crossed.

Cross-Country Comparison – 1

% E-V-G Health by Country

Legend:
- Loc1 (No context)
- Loc2 (Within context)

X-axis categories: Germany, Sweden, Netherlands, Spain, Italy, France, Denmark, Greece, Switzerland, Swi-German, Swi-French, Belgium, Bel-French, Bel-Flemish, Israel, Isr-Hebrew, Isr-Arab, UK, US, US-Spanish

Cross-Country Comparison – 2

% VG-G-F Health by Country

Legend:
- Loc1 (No context)
- Loc2 (Within context)

Countries (x-axis): Germany, Sweden, Netherlands, Spain, Italy, France, Denmark, Greece, Switzerland, Swi-German, Swi-French, Belgium, Bel-French, Bel-Flemish, Israel, Isr-Hebrew, Isr-Arab, UK, US, US-Spanish

Cross-Country Comparison – 3

% VG-G Health by Country

Cross-Country Comparison – 4

% Excellent Health by Country

Legend:
- Loc1 (No context)
- Loc2 (Within context)
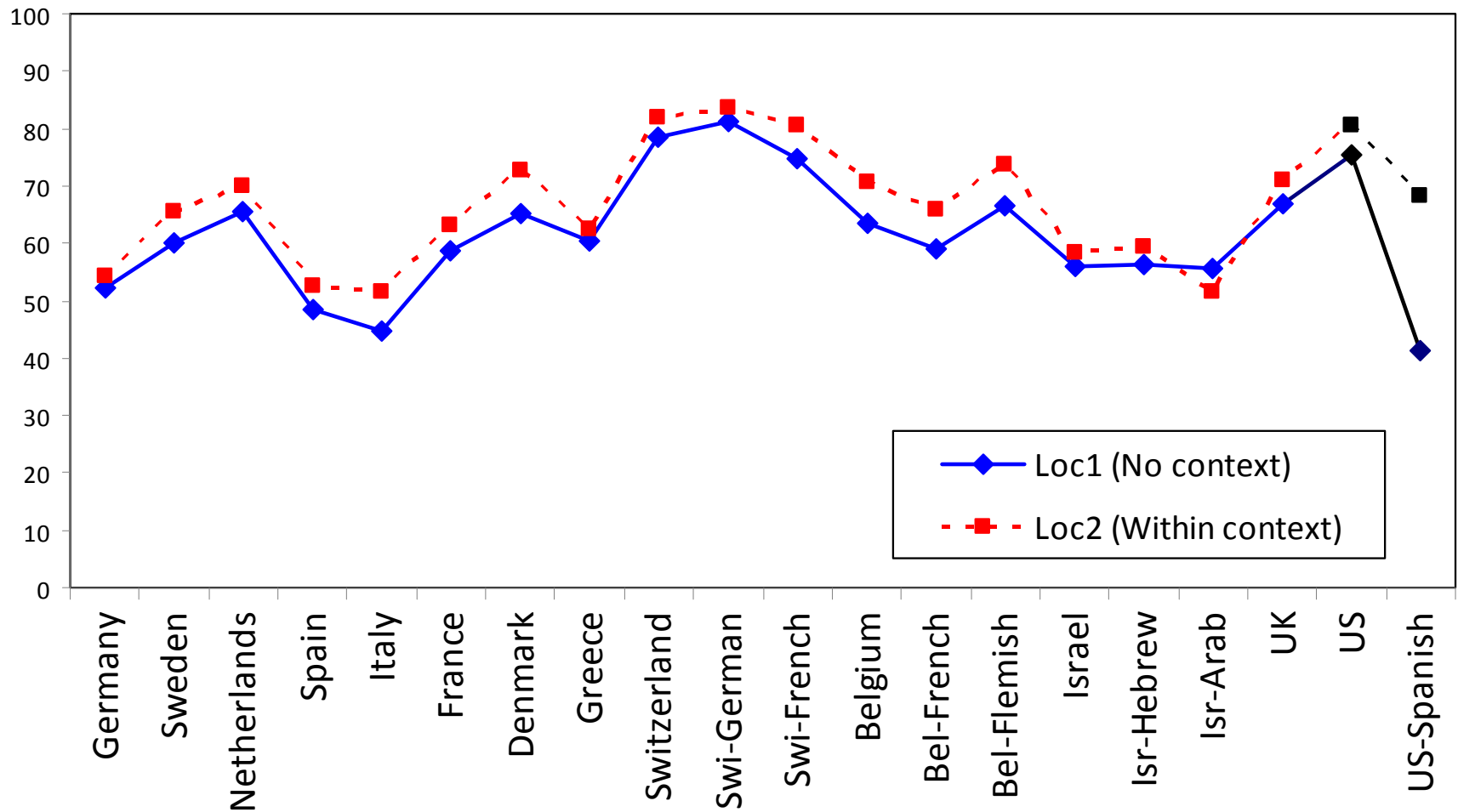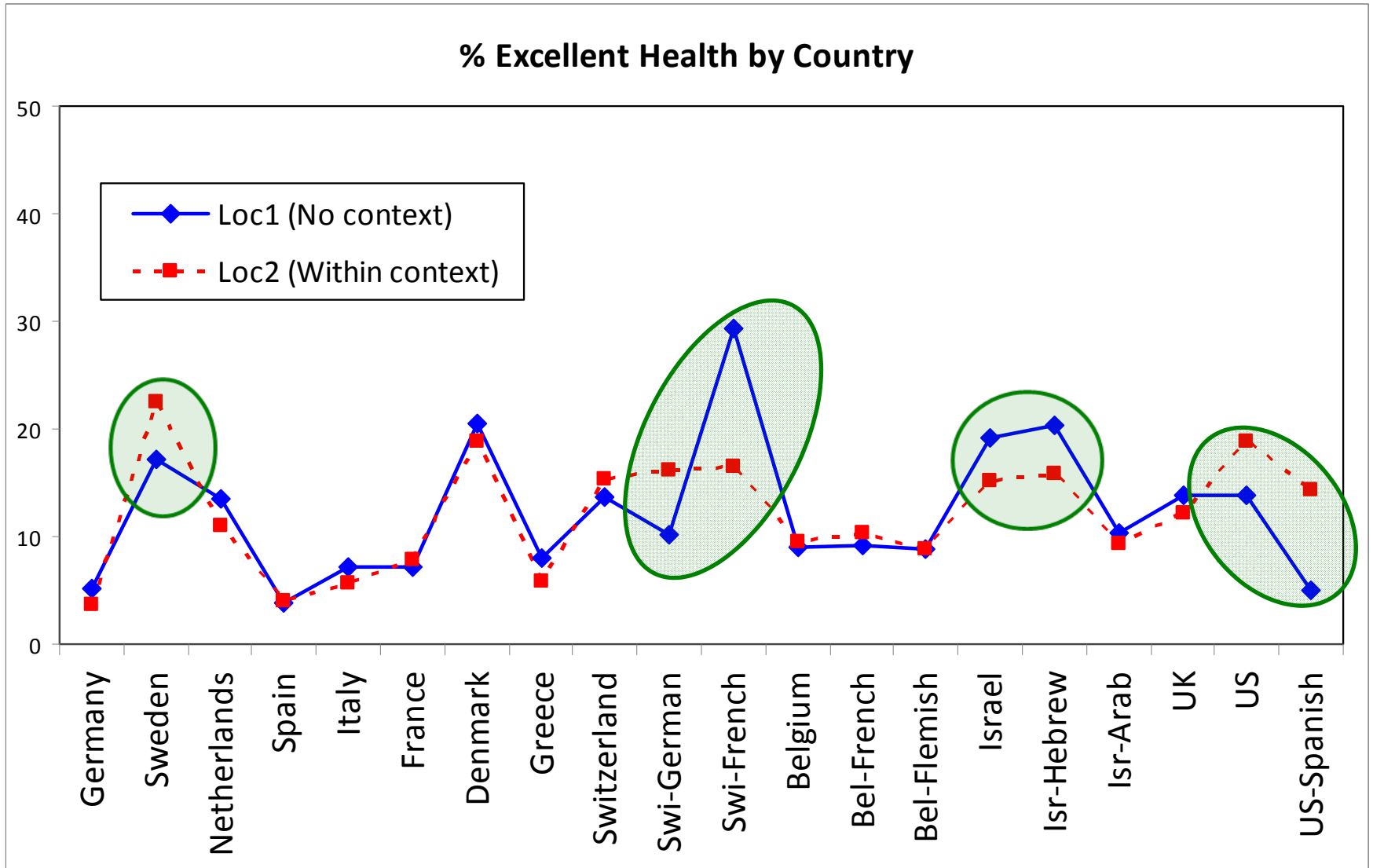
Cross-Country Comparison – 5

% VG Health by Country
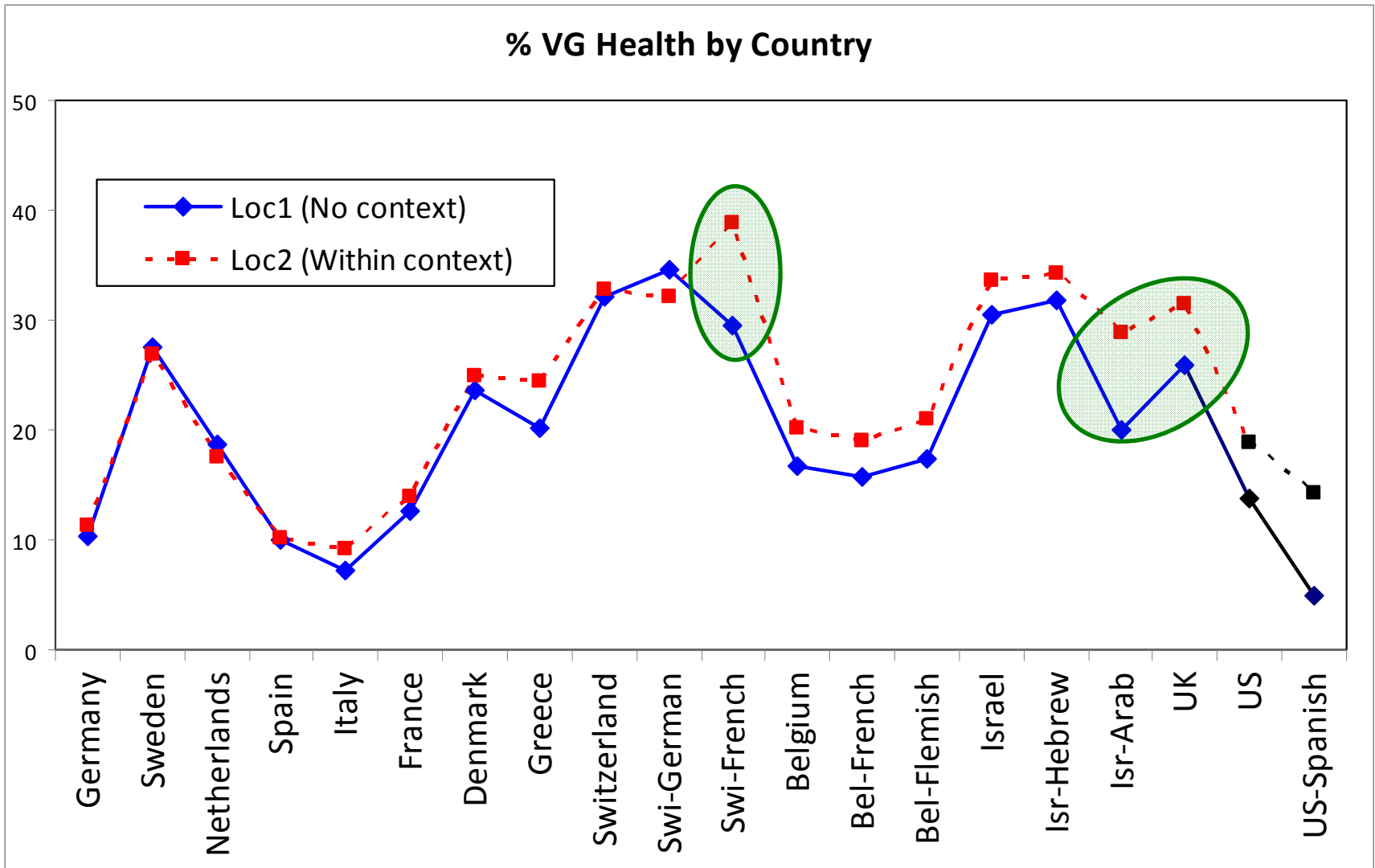
Utility of SRH by Language – 1

	English	Spanish	English-Latino
(n)	27629	1245	1325
% Deceased in HRS 2008	33.44	27.39	23.55
By SRH in the first interview			
Excellent	16.55	14.81	13.82
Very good	23.14	27.93	14.34
Good	33.43	22.49	20.42
Fair	50.25	27.53	32.17
Poor	65.46	42.15	45.28

Utility of SRH by Language – 2

Y: Alive or not as of 2008

	English	Spanish	English-Latino
(n)	27581	1244	1316
Intercept	**0.42**	**0.99**	**1.07**
EVG health 1	**0.65**	**0.27**	**0.53**
Intercept	**8.93**	**9.12**	**8.55**
EVG health 1	**0.42**	0.03	**0.28**
Age 1	**-0.13**	**-0.13**	**-0.11**
Female	**0.25**	**0.28**	**0.40**
High school or less	**-0.15**	0.15	-0.19
Currently not a smoker 1	**0.49**	**0.33**	**0.27**
# Health conditions 1 (0-8)	**-0.30**	**-0.50**	**-0.46**

Implications

- Complicated measurement error with SRH
  - Varying context effect by language
    - Absence of context effect in English does not guarantee that in another language
  - Decreased utility of SRH in Spanish (or incomparable utility of SRH between English and Spanish)
    - Response scale: Translational and cultural issues
    - Location of SRH?

- Reasons behind the error yet to be seen

Thanks!

sungheel@umich.edu