

# The health literature in Syria and on Syrian refugees before and after armed conflict: A scoping review

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## Background

- Armed conflict is suggested as a reason for lower research productivity.
- The Syrian crisis has attracted donors and researchers on one hand, and led to an increased interest in the livelihood of Syrians and Syrian refugees on the other.

**Objective:** to assess the impact of the 2011 Syrian armed conflict on the published health literature both in Syria and outside Syria.

## Methods

### Search strategy, article selection, and data analysis and visualization:

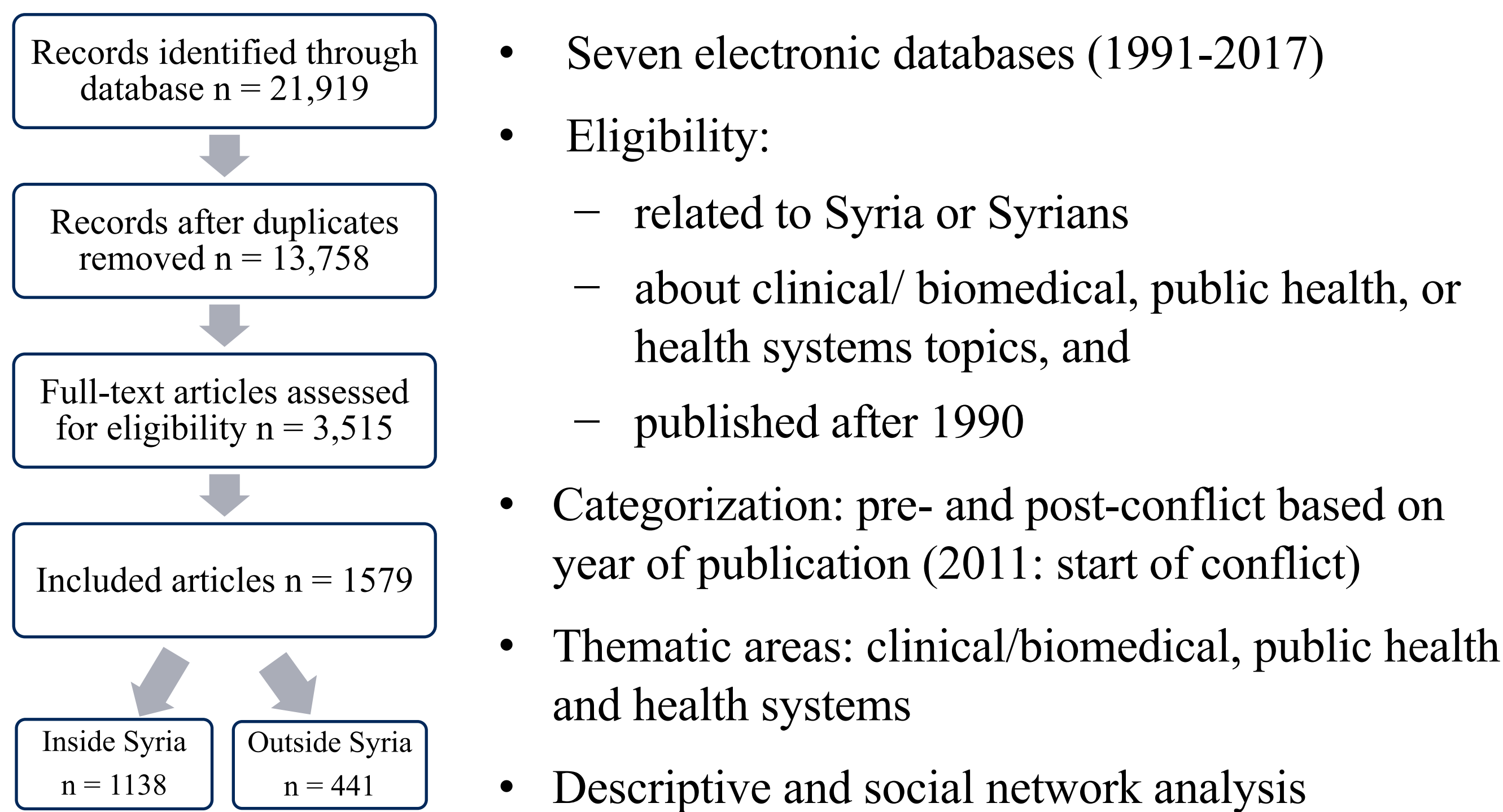
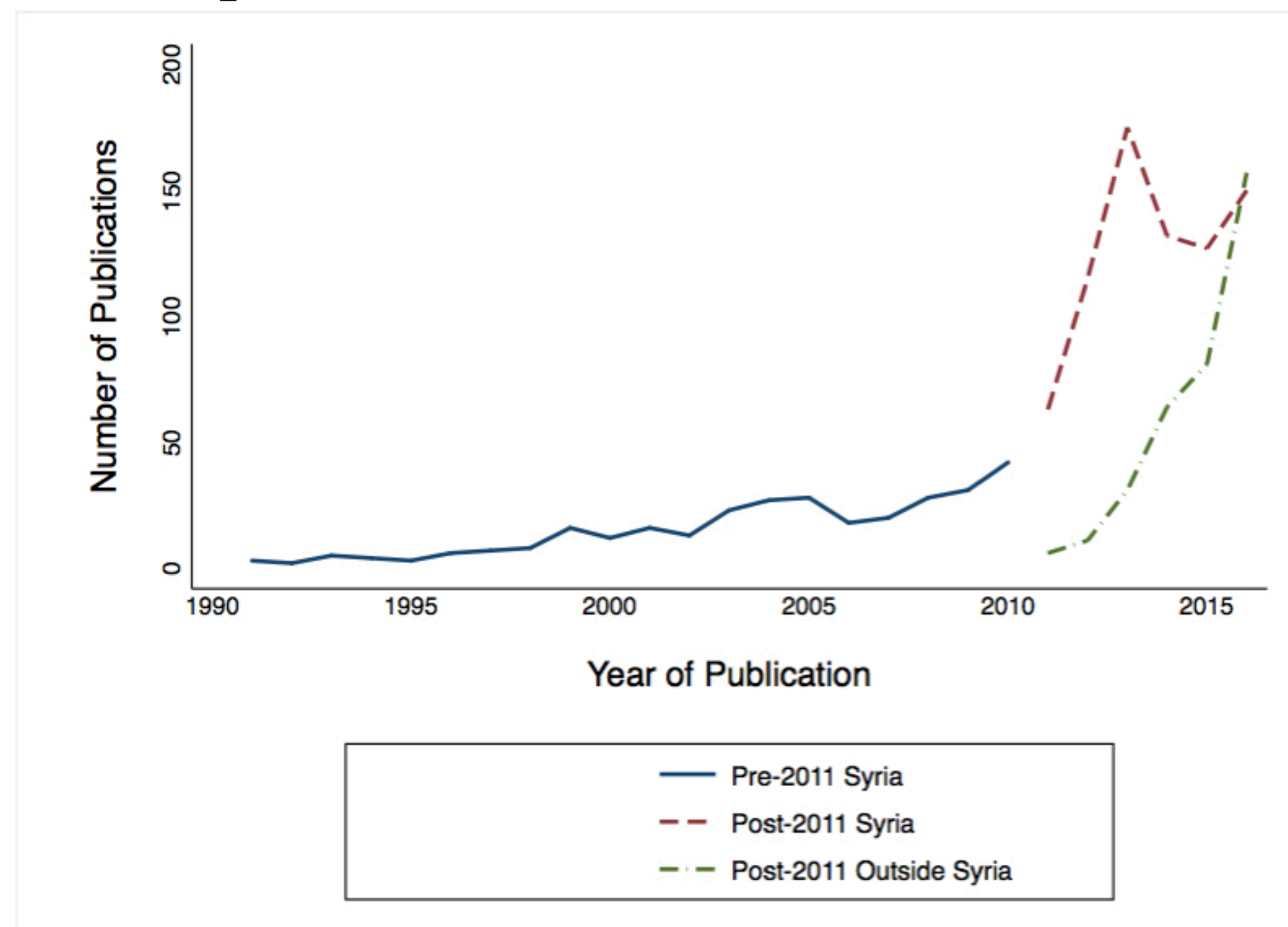


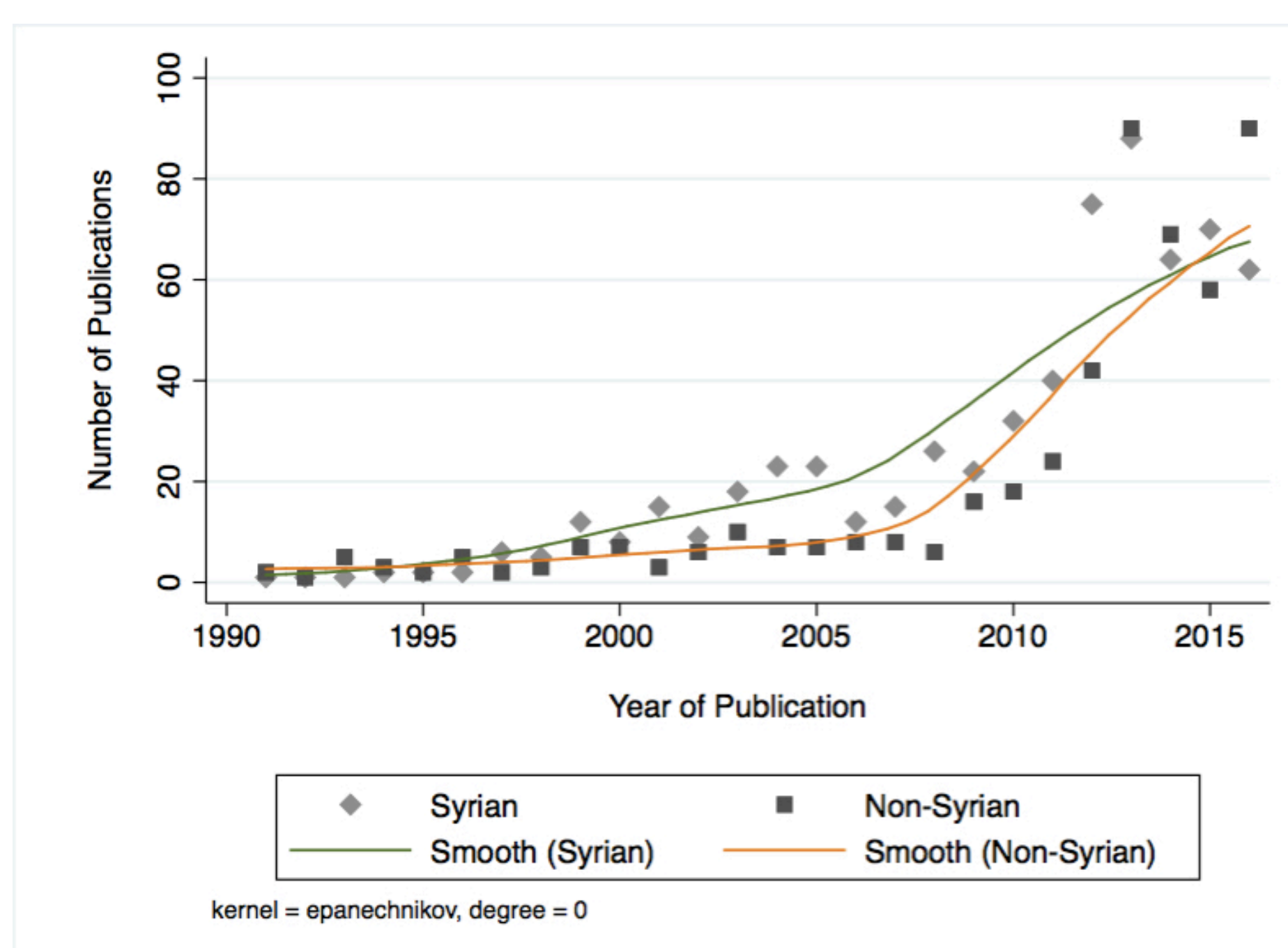
Figure 1. Study flow chart

## Results

### Figure 2. Number of publications before and after armed conflict



### Figure 3. Publications including any Syrian vs. non-Syrian authors over year of publication



### Type of publications inside Syria

- Increase in the proportions of: news (1.9% vs. 7.9%), editorials/commentaries (6.0% vs. 16.3%) and secondary research (9.9% vs. 11.3%)
- Drop in the proportion primary research papers (67.9% vs. 49.2%)

Table 1. Thematic areas and topics of publications inside Syria

Health Area	Total N (%)	Pre-2011	Post-2011	p-value*
Public Health	622 (54.66)	174 (55.77)	448 (54.24)	0.643
Health Systems	232 (20.39)	32 (10.26)	200 (24.21)	0.000**
Clinical/Biomedical	391 (34.36)	116 (37.18)	275 (33.29)	0.218

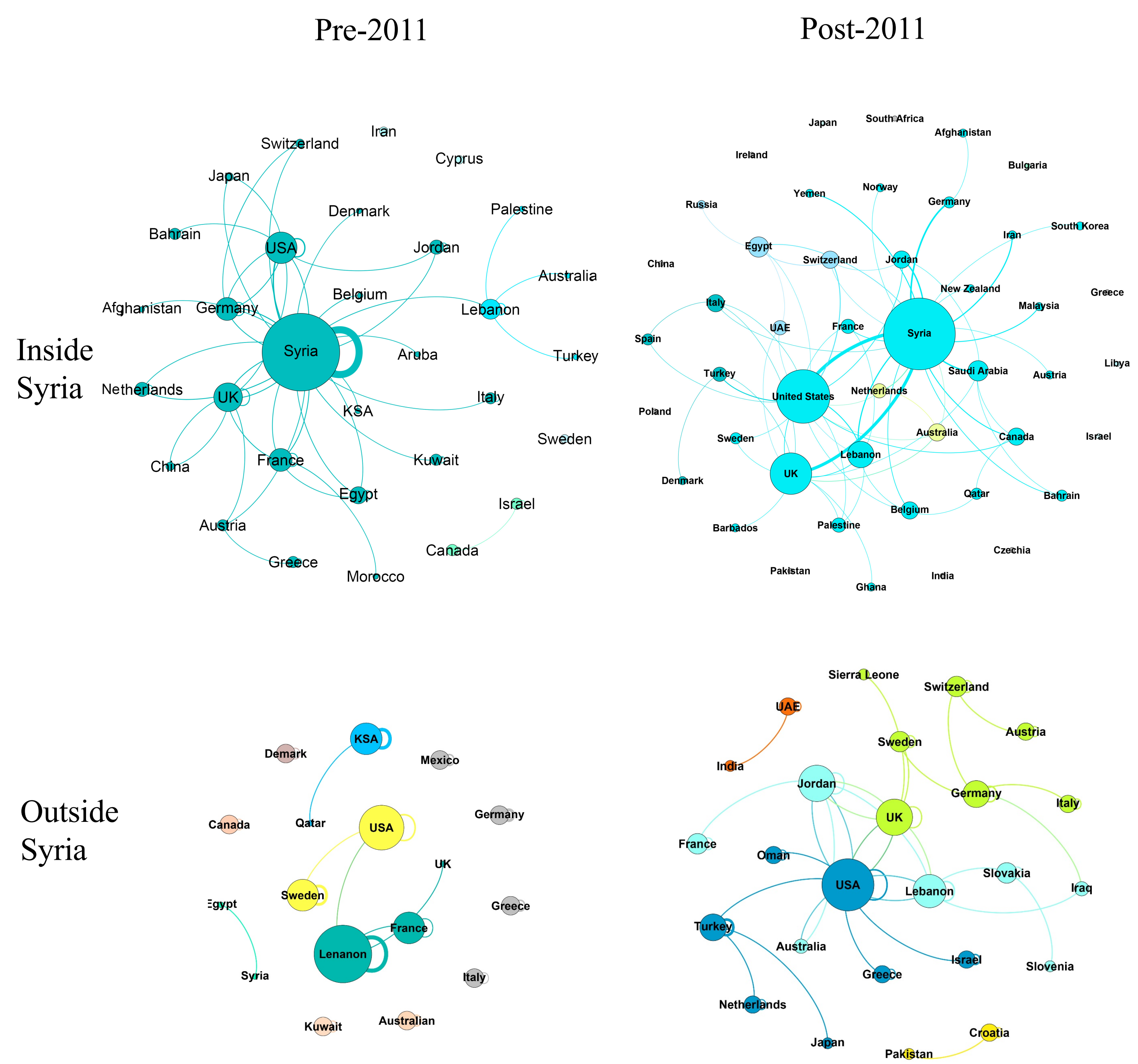
\*Chi2 test; \*\*p<0.05

Table 2. Reporting of funding in publications inside Syria

	Total N (%)	Pre-2011	Post-2011	p-value*
Funded	231 (20.30)	82 (26.28)	149 (18.04)	<0.001**
Reported as not funded	95 (8.35)	4 (1.28)	91 (11.02)	
Not reported	801 (70.39)	225 (72.12)	576 (69.73)	
Total	1138 (100%)	312	826	

\*Chi2 test; \*\*p<0.05

Figure 4. Social network analysis showing collaborations on publications inside and outside Syria between first and last authors:



## Interpretation

- The Syrian conflict was associated with a change in the rate and type of publications; where the dominant type was the editorial type.
- Prominent topics of public health research in Syria post-2011 included mental health, accidents and injuries. Topics that showed a decrease in proportions included child and maternal health.
- Increased interest in research on Syria was noticed by authors affiliated with United States, United Kingdom, Lebanon and Canada in particular.
- Increased collaboration between countries hosting Syrian refugees was noticed.

## Implications for research

- Involvement of Syrian researchers and inclusiveness is necessary. Similar findings are reported in the Ivorian civil war, with an increase in non-Ivorian first and last authors compared to Ivorian ones after conflict.
- It is important to be aware of the health needs and priorities of people living in conflict areas so that research is not purely driven by funding and external aid.



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