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Mapping the health and social impacts of the Syrian conflict

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Source: <https://d.ibtimes.co.uk/en/full/1358542/syria-explosion.jpg>



Objectives

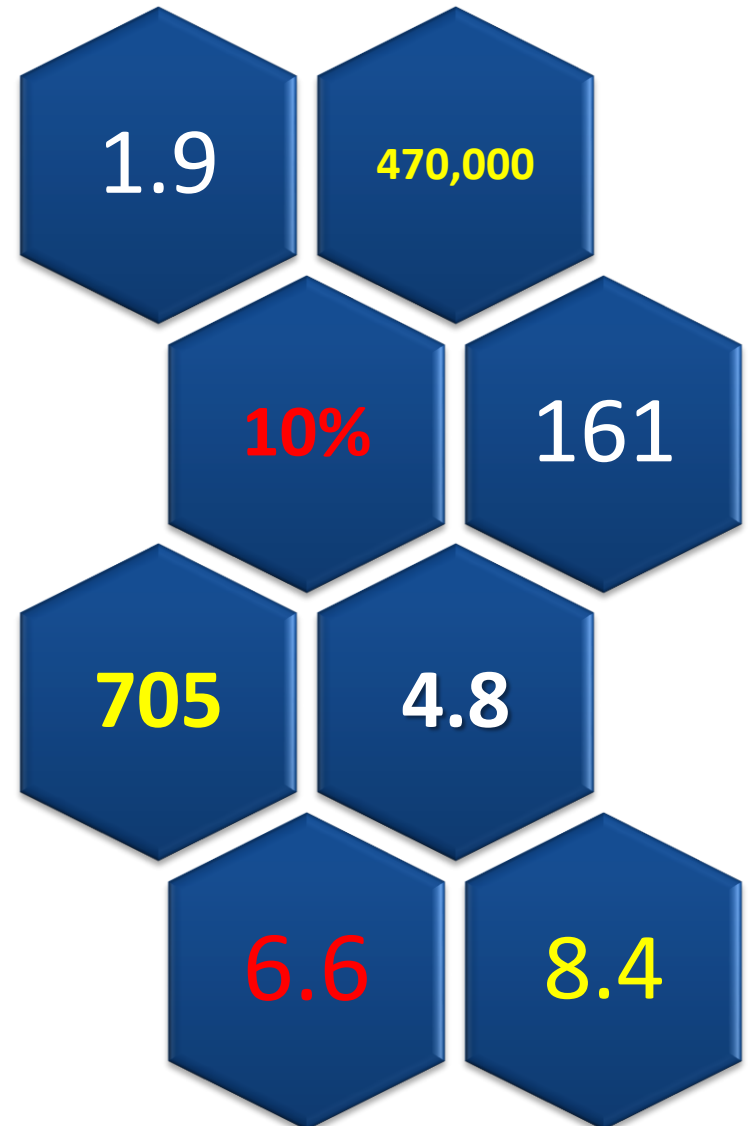
1. Describe the current state of knowledge about IDPs and polio cases in Syria.
2. Describe the spatial distributions and dynamics of IDPs and polio during the Syrian conflict.
3. Assess polio management efforts, provide evidence-based recommendations for polio prevention during conflicts, and outline next steps.





By the numbers

(adapted from Westcott & Viv,
Newsweek, 15/03/2016)



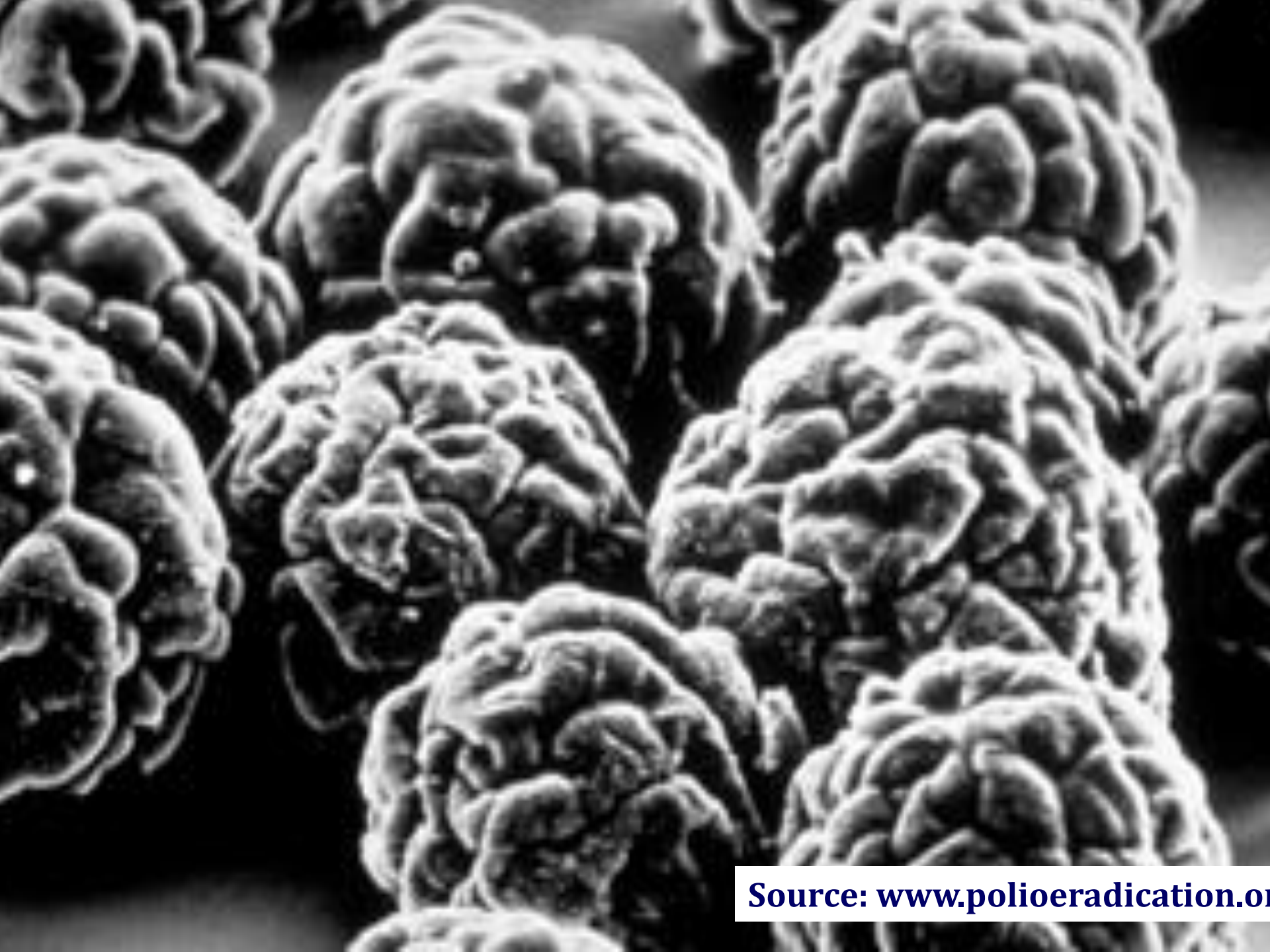


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Source: <http://www.pbs.org>



Source: www.polioeradication.org



Workflow

Data Preparation

Analysis and mapping

Interpretation of the results and conclusions

Tools



IV. SITUATION OVERVIEW AND EPIDEMIOLOGY

Since the return of polio to the Middle East in October 2013, 36 cases due to WPV1 have been confirmed in the Syrian Arab Republic. Genetic sequencing indicated that the virus had been in the region for nearly a year (linked to a virus detected in environmental samples in Egypt in December 2012, with closely related strains also detected in environmental samples in Israel and the West Bank and Gaza Strip since February 2013). Of the 36 polio cases confirmed in the Syrian Arab Republic, 70% are from Deir Al Zor (25), other cases are from Aleppo (5), Idlib (3), Hama (2) and Hama (1). Of the confirmed WPV1 cases, 52% never received OPV (19/36), the proportion of "zero-dose", non-polio AFP among children aged 6 to 59 months was 9% and 8% in the first quarter of 2014, an increase from 5% in 2011.

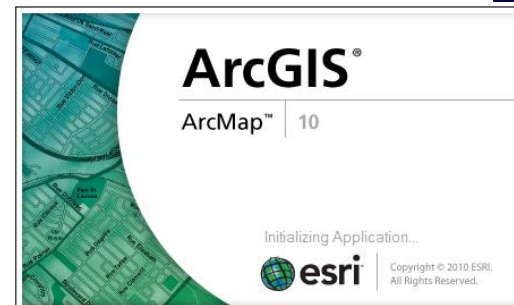
In the confirmed WPV1 case in Baghdad governorate, Iraq (see Figure 2), genetic sequencing indicates the virus is most closely related to the detected in December 2013 in Hama in the Arab Republic.

The civil war and massive displacement

The second phase of the crisis started in July 2012 when armed opposition groups went on the offensive against the Syrian army, leading to an intensification of fighting that the International Committee of the Red Cross (ICRC) qualified as a "non-international armed conflict" or civil war (ICRC, July 2012). By October 2012, opposition groups supported by regional actors, mainly Saudi Arabia and Qatar, had established control over large swathes of territory around Aleppo and Idlib in the northwest, around Deir ez-Zor in the east and Dar'a in the south (ICRC, June 2012; UN, October 2012; UN, May 2012). When most of the north-east fell into the hands of the People's Protection Units (PPU), a Kurdish armed group (Al-Arabia News, July 2012), people fled government reprisals and sought protection in rebel-controlled areas along the Turkish border, or in areas beyond Damascus' control.

In July 2012, the violence spread to the capital, Damascus and to Aleppo, the economic heart of the country. As peaceful protests were gradually replaced by fighting that extended to urban areas, the number of IDPs increased exponentially, reaching over 1.5 million (UN, July 2012; Brookings, October 2012).

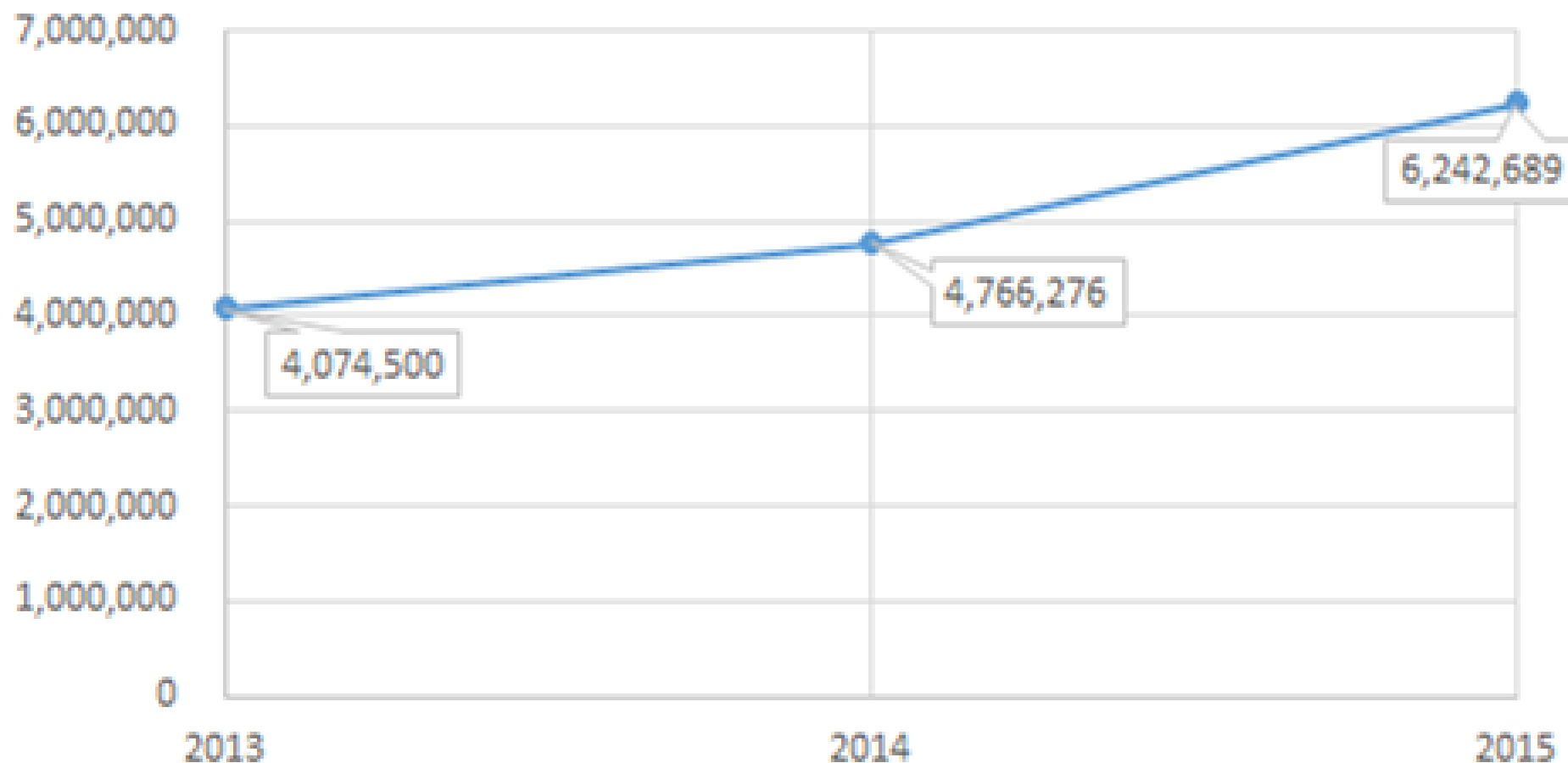
While opposition forces were gaining ground, divisions between Islamist fundamentalist groups – such as the Islamic State of Iraq and the Levant (ISIL, also referred to as ISIS), the al-Nusra Front or al-Tawhid – and the secular opposition – such as the FSA and the PGC – emerged. Armed clashes led to the displacement of tens of thousands of people, particularly in the Aleppo and Idlib governorates in the north and Raqqa and Deir ez-Zor in the east. Islamist fundamentalist opposition groups were reported to have perpetrated numerous acts of violence against minorities (Carter Centre, February 2013; Al Jazeera, January 2014; Al-Monitor, September 2013).





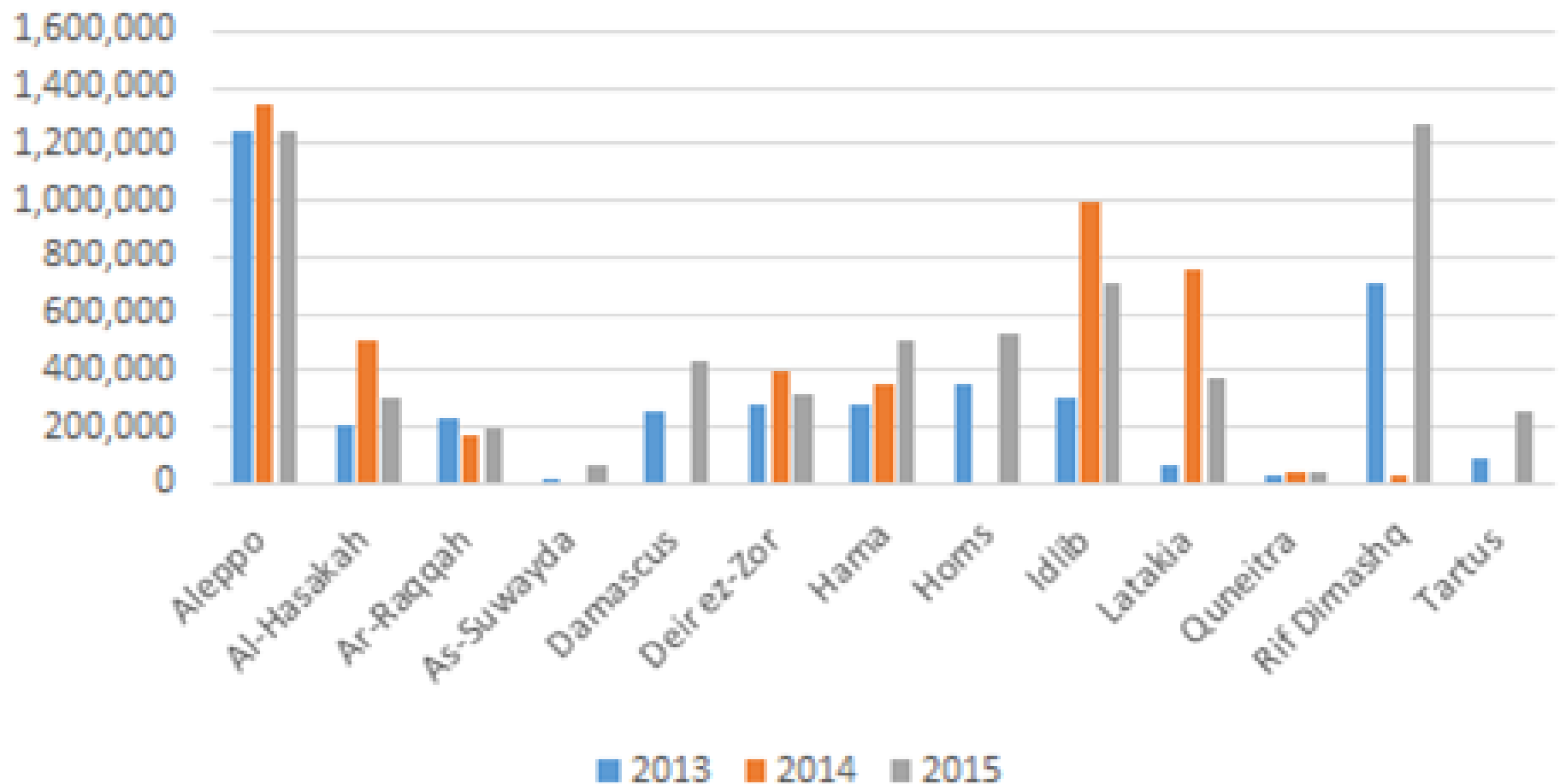
Total # of IDPs in all^ governorates (2013-2015)

^2014: no data available for 4 governorates



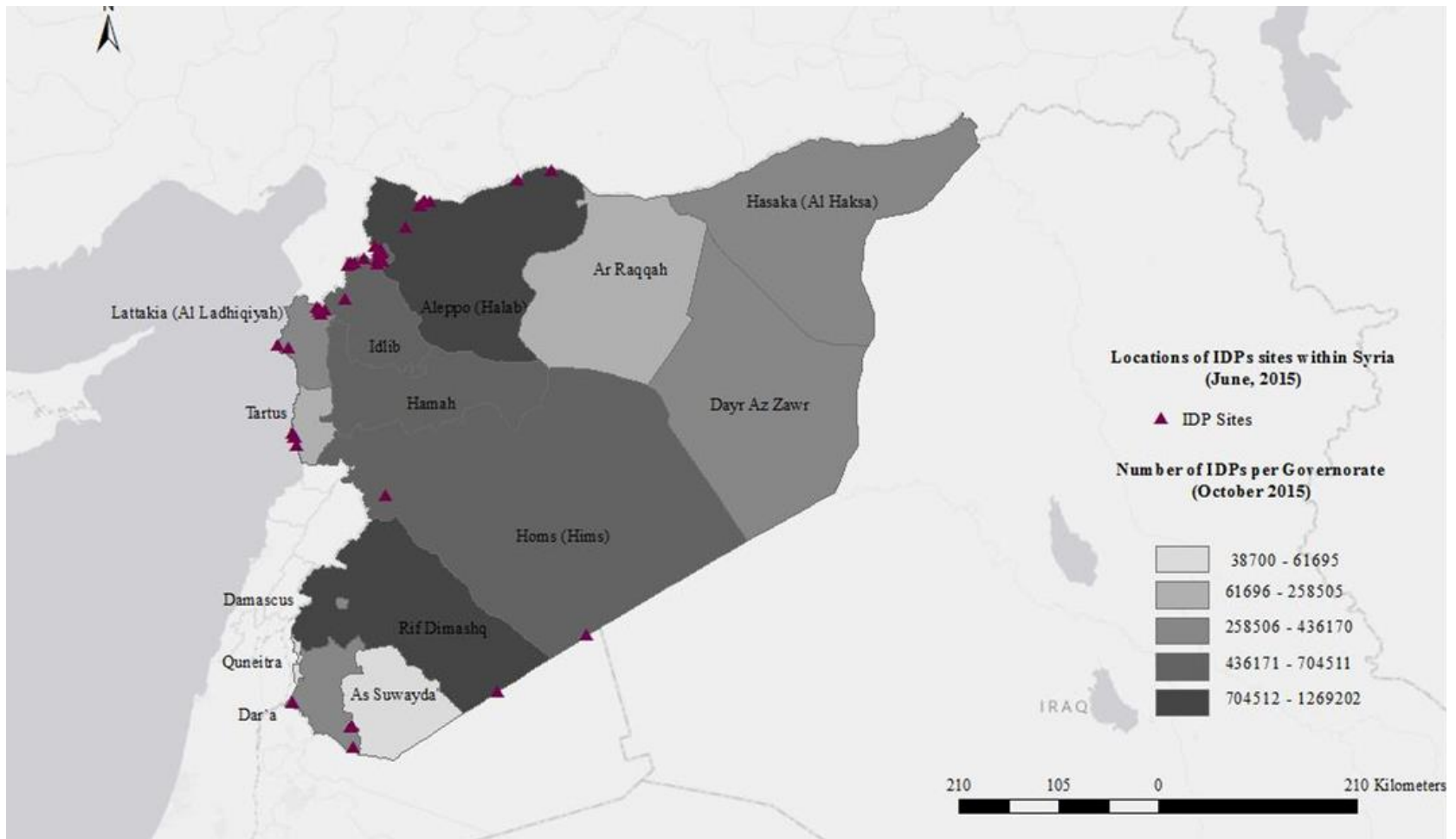


of IDPs per governorate (2013-2015)



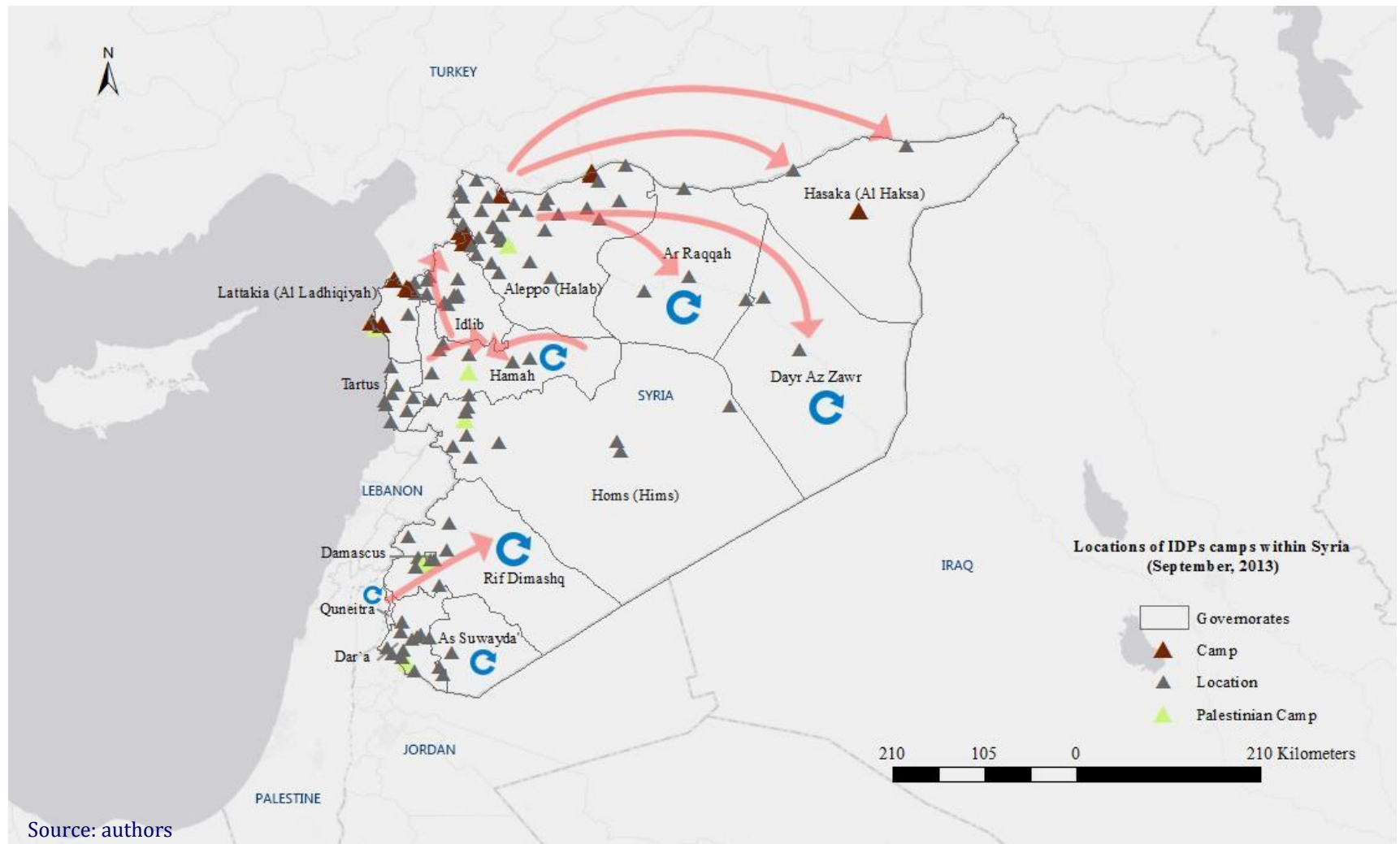


Spatial patterns of IDPs (2015)



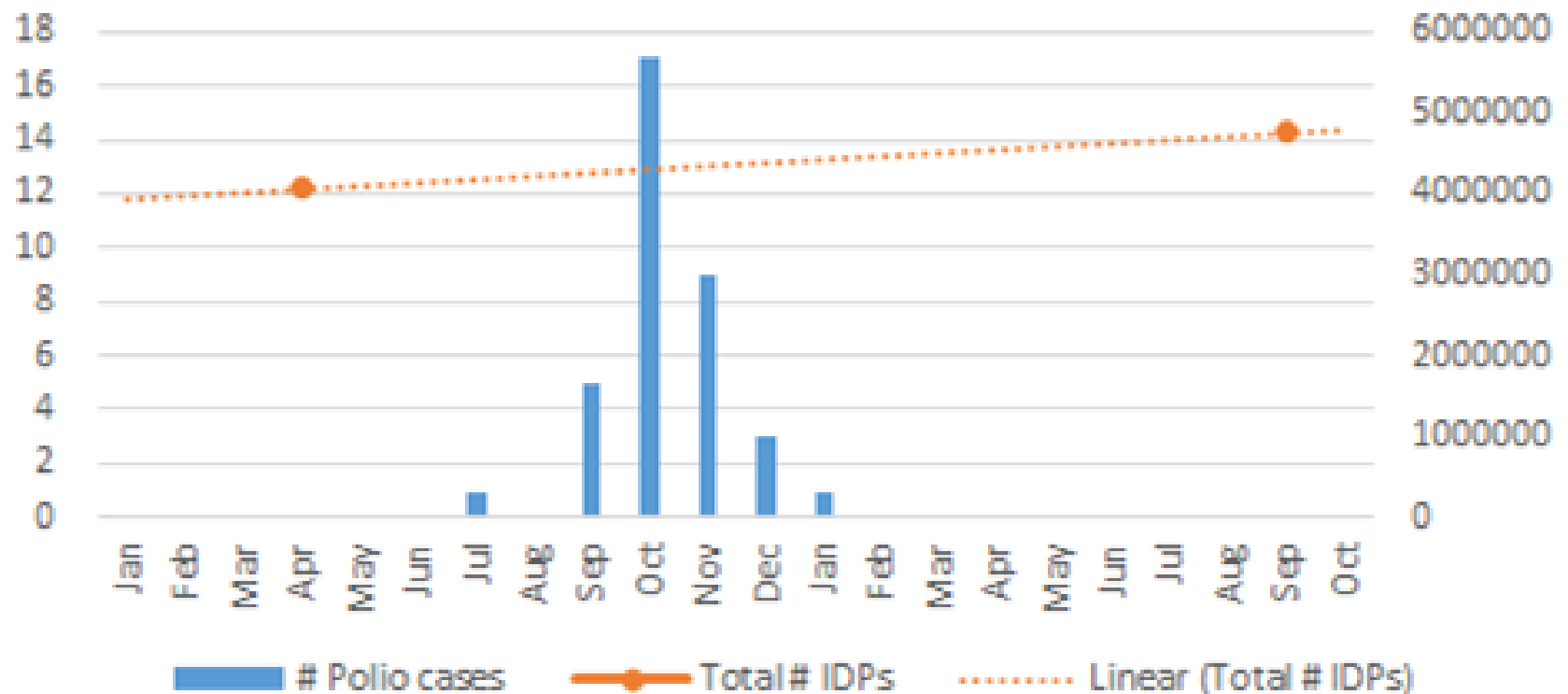


Spatial distribution camps and flows (2013)



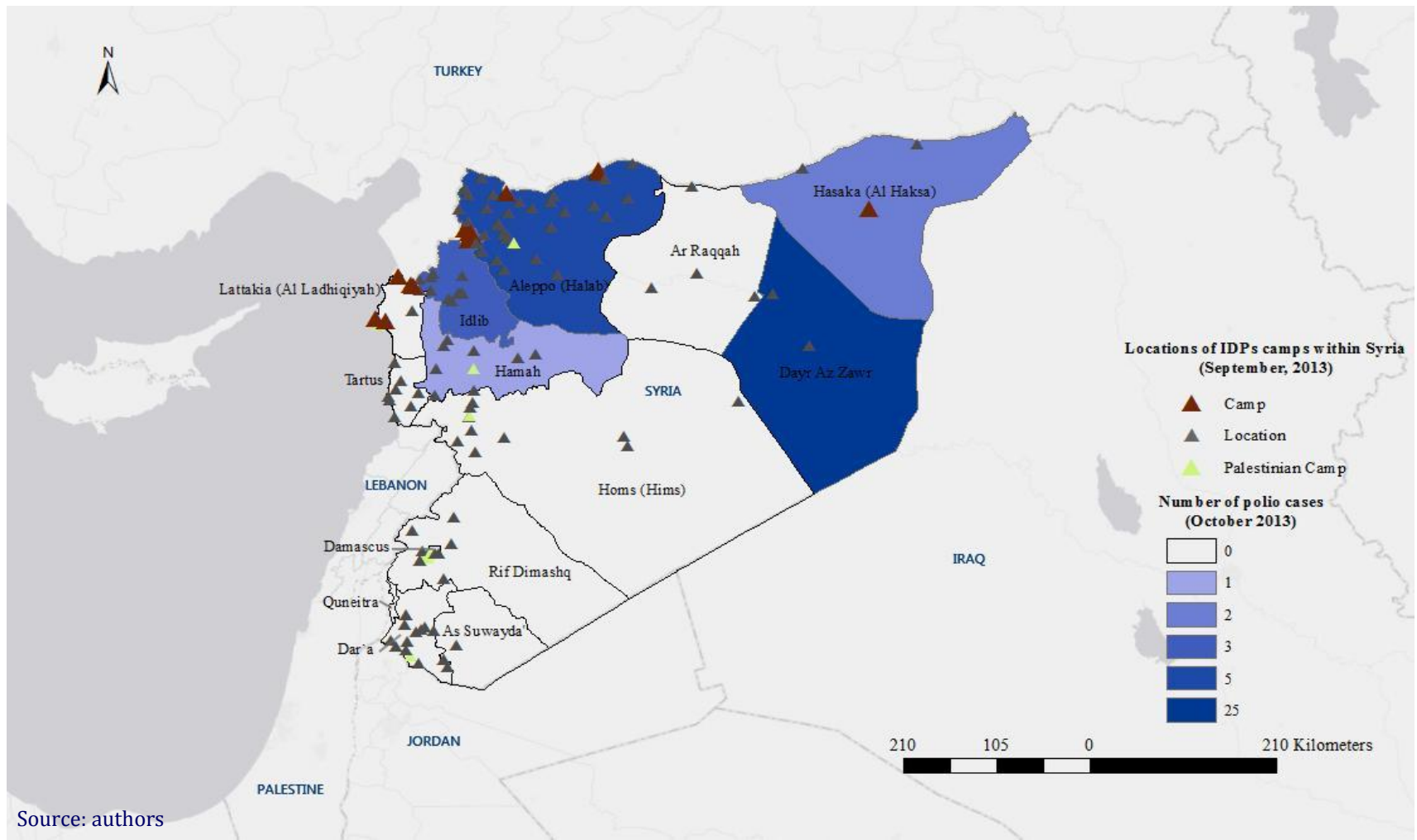


of polio cases per month and # of IDPs (2013-2014)





Spatial distribution of IDPs and polio (2013)

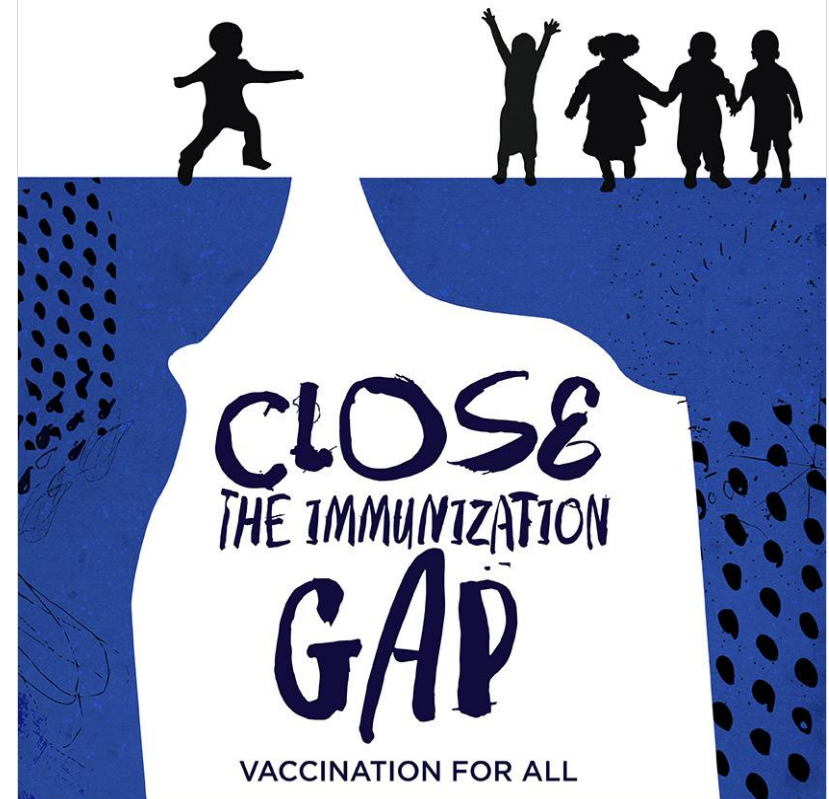




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10% immunization gap



Source: WHO



WWW.WHO.INT/CAMPAIGNS/IMMUNIZATION-WEEK/2015



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Discussion





Next steps

Recommendations:

- cell phones
- SMS
- early warning & surveillance systems (more sentinel sites)



Source:

Future research on using information communications technologies (ICT) to bridge immunization gap.





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شكرا جزيلا!

どうもありがとうございました！

Thank you very much for your attention!



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