

Israeli study shows significant narrowing of dental health inequalities in fluoridated Haifa

Twelve year old Israeli children who live in the fluoridated city of Haifa have, on average, less tooth decay than those in non-fluoridated Kfar Saba, according to a recent comparison of dental health in these two communities.

Conducted in 2011/12 by the Department of Community Dentistry in the Dental Faculty of Jerusalem's Hebrew University, a study found that Haifa's 12-year olds had an average of 0.98 decayed, missing and filled teeth, compared with 1.38 in Kfar Saba.

The study also found a much narrower gap in dental health between children from the most and least affluent backgrounds in Haifa than between the same groups in Kfar Saba.

In fluoridated Haifa, children from the least affluent backgrounds have only 4.1% more decayed, missing and filled teeth than those from the most affluent backgrounds. By contrast, in non-fluoridated Kfar Saba children from the least affluent backgrounds have 26.7% more teeth affected than those from the most affluent backgrounds.

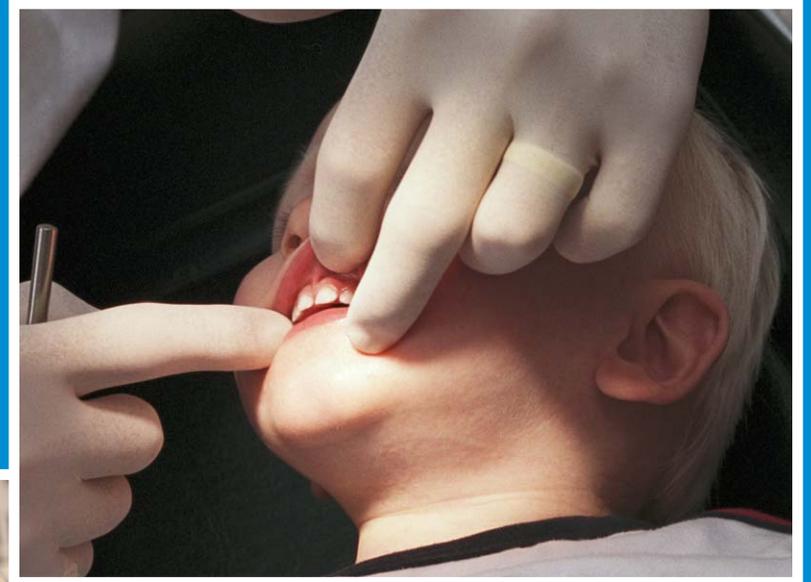
A higher proportion of Haifa children from all social groups are also completely free of decay. As the table shows, many more Haifa children from the least affluent backgrounds are free of decay than Kfar Saba children from the most affluent backgrounds.

Comparison of children in fluoridated Haifa and non-fluoridated Kfar Saba

	Average number of decayed, missing and filled teeth per child	% of children free of decay
Fluoridated Haifa		
All 12-year olds examined	0.98	56.4%
Children from the most affluent backgrounds	0.97	57.9%
Children from the least affluent backgrounds	1.01	53.8%
% difference in decayed, missing and filled teeth between the most and least affluent	4.1%	
Non-fluoridated Kfar Saba		
All 12-year olds examined	1.38	40.6%
Children from the most affluent backgrounds	1.20	44.8%
Children from the least affluent backgrounds	1.52	37.5%
% difference in decayed, missing and filled teeth between the most and least affluent	26.7%	

These statistics from Israel add to the body of evidence suggesting that water fluoridation helps to reduce dental health inequalities between children from different social groups. The study was commissioned by the Israeli Ministry of Health.

For more information about studies that have found reduced differences in tooth decay rates among children from the most and least affluent backgrounds in fluoridated areas, compared with children from the same social groups in non-fluoridated areas, please see pages 10 to 18 of the Dental Benefits section of *One in a Million* on this British Fluoridation Society website.





Fluoridated Haifa

- Lower rate of tooth decay among children than in non-fluoridated Kfar Saba
- Higher proportion of decay-free children than in non-fluoridated Kfar Saba
- Narrower dental health gap between children from most and least affluent backgrounds than between those in non-fluoridated Kfar Saba



Non-fluoridated Kfar Saba

- Higher rate of tooth decay among children than in fluoridated Haifa
- Lower proportion of decay-free children than in fluoridated Haifa
- Wider dental health gap between children from most and least affluent backgrounds than between those in fluoridated Haifa