

RELATIONSHIP BETWEEN THE PRESENCE OF INTER-MUNICIPAL COOPERATION TO PROVIDE DAYCARE SERVICES FOR CHILDREN WITH MILD ILLNESS AND GEOGRAPHIC, FINANCIAL, AND DEMOGRAPHIC FACTORS

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[Background and aims] In Japan, more than 30% of infants attend general nursery schools during the day. However, these facilities do not accept children that are unwell, even those with mild symptoms such as low-grade fever. Although nurseries for children with mild illness are being developed, these facilities have mainly been established in urban areas, with few located in small municipalities. Some small municipalities work with neighboring municipalities with these facilities to secure access to daycare for children with mild illness for their residents. This study analyzed associations between the presence of inter-municipal cooperation and the geographical, financial, and demographic factors of municipalities depending on such cooperation.

[Methods] Applying a logistic model, the association between the presence of inter-municipal cooperation to provide daycare for children with mild illness and the geographical, financial, and demographic factors of municipalities without nurseries for children with mild illness was investigated.

[Results] The reciprocal of the distance to the nearest municipality with such nurseries was positively correlated with the presence of cooperation between municipalities ($P < 0.001$). The capacity of general nursery schools for healthy children had a negative association ($P = 0.010$) with the presence of inter-municipal cooperation.

However, the financial indicators of municipalities without nurseries for children with mild illness did not show a significant association with the presence of inter-municipal cooperation.

[Conclusions] Proximity to the nearest municipality with such nurseries had a strong association with the presence of inter-municipal cooperation, albeit with regional differences. However, financial indicators were not related to the presence of cooperation.

Table. Geographic, financial, and demographic factors and the presence of inter-municipal cooperation

	Parameter	B (Estimate)	SD	P
Reciprocal of distance* (/km)	a1	10.898	1.417	<0.001
Financial capability indicator	a2	-0.200	0.427	0.639
Ordinary balance ratio (%)	a3	-0.013	0.016	0.421
Capacity of general nursery schools for healthy children (× 100)	a4	-0.042	0.016	0.010
Region				
01 Hokkaido	a5	-1.166	0.595	0.050
02 Tohoku	a6	0.531	0.367	0.148
03 Kanto	Reference			
04 Chubu	a7	1.522	0.326	<0.001
05 Kinki	a8	0.686	0.384	0.074
06 Chugoku	a9	2.853	0.457	<0.001
07 Shikoku	a10	0.841	0.455	0.064
08 Kyushu and Okinawa	a11	1.232	0.340	<0.001
Constant	b	-1.480	1.493	0.321