

Spatial clustering and contextual factors associated with hospitalization and deaths due to COVID-19 in Sweden: a geospatial nationwide ecological study

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Table A1. Standardized Incidence of Hospitalizations (SIR) and Standardized Mortality Ratios (SMR) by municipalities in Sweden (February 2020 to October 5th 2020)

Municipality	SIR (95% CI)	SMR (95% CI)
Norrtälje	0.59 (0.46-0.73)	0.62 (0.42-0.88)
Sigtuna	2.3 (1.97-2.68)	2.77 (2.1-3.58)
Nynäshamn	0.93 (0.69-1.23)	0.84 (0.47-1.38)
Varberg	0.62 (0.49-0.77)	0.53 (0.34-0.78)
Krokom	0.4 (0.2-0.72)	0 (0-0.38)
Upplands Väsby	1.8 (1.51-2.13)	3.38 (2.65-4.24)
Trosa	0.62 (0.35-1.01)	0.46 (0.13-1.19)
Gnosjö	0.57 (0.27-1.04)	1.87 (0.97-3.27)
Gotland	0.16 (0.1-0.25)	0.11 (0.04-0.26)
Hässleholm	0.43 (0.31-0.57)	0.48 (0.3-0.75)
Tibro	1.08 (0.69-1.6)	1.36 (0.7-2.37)
Ulricehamn	0.91 (0.66-1.22)	0.47 (0.22-0.9)
Mariestad	0.26 (0.14-0.44)	0.1 (0.01-0.36)
Hofors	1.56 (1.06-2.21)	0.66 (0.21-1.53)
Hudiksvall	0.75 (0.57-0.98)	0.67 (0.4-1.04)
Sollefteå	0.48 (0.29-0.74)	0.75 (0.4-1.28)
Lycksele	0.08 (0.01-0.3)	0 (0-0.39)
Järfälla	2.32 (2.06-2.6)	2.32 (1.88-2.83)
Nyköping	1.1 (0.91-1.31)	1.28 (0.96-1.66)
Växjö	0.48 (0.38-0.61)	0.56 (0.38-0.79)
Högsby	0.33 (0.09-0.84)	0 (0-0.76)
Åstorp	0.38 (0.18-0.7)	0.35 (0.07-1.03)
Sotenäs	0.23 (0.08-0.55)	0.23 (0.03-0.82)
Mellerud	0.4 (0.17-0.79)	0.73 (0.27-1.58)
Hallsberg	0.54 (0.31-0.87)	0.47 (0.15-1.09)
Ånge	0.54 (0.27-0.97)	0.37 (0.08-1.07)
Kramfors	0.87 (0.61-1.21)	2.23 (1.56-3.09)
Överkalix	0 (0-0.45)	0 (0-1.07)
Luleå	0.4 (0.3-0.52)	0.12 (0.05-0.27)
Lidingö	1.17 (0.96-1.42)	1.79 (1.37-2.29)

Sävsjö	0.49 (0.24-0.87)	0.34 (0.07-0.98)
Herrljunga	1.56 (1.04-2.24)	1.14 (0.49-2.25)
Kungälv	0.78 (0.6-0.99)	0.57 (0.33-0.91)
Örebro	1.24 (1.11-1.39)	1.05 (0.84-1.29)
Jokkmokk	0 (0-0.34)	0 (0-0.89)
Övertorneå	0.84 (0.39-1.6)	0.65 (0.13-1.89)
Vaxholm	1.18 (0.76-1.74)	0.44 (0.09-1.3)
Ödeshög	0.09 (0-0.51)	0.24 (0.01-1.32)
Ätvidaberg	0.46 (0.23-0.83)	0.65 (0.24-1.41)
Gislaved	0.74 (0.53-1.01)	0.51 (0.24-0.93)
Partille	0.8 (0.6-1.05)	0.73 (0.42-1.18)
Bräcke	0.22 (0.04-0.63)	2.85 (1.59-4.69)
Malå	0.46 (0.1-1.35)	0.39 (0.01-2.19)
Pajala	0.9 (0.48-1.55)	0.67 (0.18-1.71)
Habo	0.87 (0.51-1.4)	0.17 (0-0.94)
Vaggeryd	0.08 (0.01-0.29)	1.14 (0.55-2.09)
Tjörn	0.6 (0.37-0.93)	0.48 (0.18-1.05)
Vansbro	0.28 (0.08-0.71)	0.69 (0.19-1.76)
Ovanåker	0.61 (0.34-1.01)	1.26 (0.65-2.2)
Stockholm	2.22 (2.15-2.3)	2.46 (2.32-2.61)
Olofström	0.18 (0.06-0.41)	0.17 (0.02-0.62)
Bjuv	0.08 (0.01-0.27)	0 (0-0.44)
Höör	0.1 (0.02-0.29)	0.09 (0-0.52)
Tomelilla	0.11 (0.02-0.32)	0.1 (0-0.53)
Falkenberg	0.57 (0.43-0.75)	0.69 (0.44-1.02)
Essunga	0.52 (0.19-1.14)	1.13 (0.37-2.63)
Eda	0.23 (0.06-0.59)	0 (0-0.54)
Nordmaling	0.13 (0.02-0.48)	0 (0-0.63)
Vindeln	0.43 (0.14-1.01)	0.62 (0.13-1.81)
Piteå	0.32 (0.21-0.48)	0.39 (0.2-0.7)
Tyresö	1.87 (1.58-2.2)	2.28 (1.73-2.96)
Södertälje	3.5 (3.21-3.8)	2.7 (2.26-3.2)
Östhammar	1.03 (0.76-1.36)	1.16 (0.73-1.76)
Gnesta	1.23 (0.81-1.81)	2.08 (1.16-3.42)
Hultsfred	0.33 (0.16-0.61)	0.16 (0.02-0.58)
Borås	1.38 (1.22-1.56)	1.17 (0.93-1.45)
Borlänge	1.84 (1.57-2.14)	3.01 (2.44-3.66)
Storuman	0.15 (0.02-0.55)	0 (0-0.68)
Boden	0.74 (0.53-1)	0.77 (0.44-1.24)
Nykvarn	1.36 (0.87-2.02)	2.22 (1.11-3.98)
Älvkarleby	0.86 (0.49-1.39)	3.01 (1.86-4.6)
Vingåker	1.72 (1.17-2.44)	2.64 (1.54-4.23)
Karlshamn	0.15 (0.07-0.28)	0.16 (0.04-0.4)
Orust	0.3 (0.14-0.54)	0.3 (0.08-0.77)

Grästorp	0.51 (0.19-1.11)	0.22 (0.01-1.21)
Falköping	0.51 (0.35-0.72)	0.25 (0.09-0.54)
Lindesberg	0.5 (0.31-0.74)	0.57 (0.27-1.05)
Sala	0.85 (0.6-1.16)	1.7 (1.14-2.44)
Östersund	0.69 (0.55-0.86)	0.85 (0.59-1.18)
Bjurholm	0.35 (0.04-1.28)	0 (0-1.29)
Robertsfors	0.36 (0.12-0.84)	0.56 (0.12-1.64)
Uppvidinge	0.83 (0.48-1.35)	0.38 (0.08-1.1)
Mönsterås	0.84 (0.53-1.26)	1.42 (0.79-2.34)
Burlöv	0.71 (0.44-1.07)	1.12 (0.56-2.01)
Örkelljunga	0.29 (0.11-0.64)	0.38 (0.08-1.11)
Alingsås	0.69 (0.52-0.9)	0.45 (0.24-0.78)
Torsby	0.38 (0.18-0.7)	0.27 (0.06-0.79)
Munkfors	2.8 (1.8-4.17)	2.65 (1.27-4.87)
Surahammar	0.6 (0.31-1.05)	0.13 (0-0.75)
Sundsvall	0.85 (0.72-1)	0.75 (0.56-0.99)
Åre	1.03 (0.63-1.59)	1.36 (0.59-2.68)
Oxelösund	1.47 (1.03-2.03)	1.07 (0.54-1.92)
Jönköping	1.52 (1.36-1.68)	1.01 (0.81-1.24)
Lessebo	0.37 (0.13-0.8)	0.49 (0.1-1.42)
Mörbylånga	0.56 (0.32-0.89)	0.45 (0.15-1.06)
Nybro	0.53 (0.33-0.8)	0.3 (0.1-0.7)
Perstorp	0.29 (0.08-0.74)	0.41 (0.05-1.47)
Götene	0.19 (0.06-0.44)	0.1 (0-0.58)
Kungsör	0.78 (0.42-1.33)	0.17 (0-0.95)
Malung-Sälen	0.19 (0.05-0.48)	0.25 (0.03-0.9)
Kiruna	0.61 (0.4-0.89)	1.5 (0.94-2.27)
Nacka	1.49 (1.31-1.69)	1.99 (1.62-2.42)
Flen	1.4 (1.03-1.85)	1.33 (0.79-2.11)
Mjölby	0.53 (0.35-0.77)	0.98 (0.58-1.55)
Borgholm	0.41 (0.21-0.74)	0.44 (0.14-1.02)
Simrishamn	0.13 (0.05-0.29)	0.1 (0.01-0.37)
Laholm	0.37 (0.22-0.58)	0.61 (0.32-1.07)
Dals-Ed	0.4 (0.11-1.03)	0.77 (0.16-2.25)
Gullspång	0.25 (0.05-0.72)	0.2 (0.01-1.13)
Vänersborg	0.78 (0.59-1)	1.58 (1.15-2.12)
Fagersta	0.65 (0.38-1.04)	0.84 (0.38-1.59)
Alvesta	0.87 (0.6-1.23)	1.7 (1.1-2.51)
Älmhult	0.88 (0.58-1.27)	0.98 (0.51-1.71)
Karlskrona	0.44 (0.33-0.57)	0.2 (0.09-0.37)
Ängelholm	0.21 (0.13-0.34)	0.27 (0.12-0.51)
Kungsbacka	0.61 (0.49-0.75)	0.39 (0.24-0.6)
Skövde	0.89 (0.71-1.1)	0.93 (0.63-1.31)
Storfors	0.69 (0.26-1.51)	0.31 (0.01-1.72)

Mora	0.14 (0.05-0.31)	0.06 (0-0.34)
Danderyd	1.04 (0.8-1.33)	0.73 (0.43-1.15)
Finspång	1.01 (0.73-1.35)	1.42 (0.91-2.11)
Sollentuna	1.58 (1.36-1.82)	2.77 (2.26-3.36)
Katrineholm	1.79 (1.48-2.15)	2.19 (1.65-2.84)
Vadstena	0.23 (0.06-0.6)	0.7 (0.23-1.62)
Kalmar	0.92 (0.76-1.11)	0.3 (0.16-0.51)
Svalöv	0.21 (0.07-0.48)	0.26 (0.03-0.95)
Svedala	0.28 (0.13-0.51)	0.35 (0.1-0.9)
Sjöbo	0.16 (0.06-0.35)	0 (0-0.28)
Vara	0.19 (0.07-0.41)	0 (0-0.32)
Töreboda	1.1 (0.68-1.68)	1.21 (0.56-2.31)
Mölnadal	1.01 (0.83-1.21)	1.01 (0.7-1.41)
Arvika	0.41 (0.26-0.62)	0.13 (0.03-0.39)
Sorsele	0 (0-0.64)	0 (0-1.48)
Solna	1.83 (1.6-2.08)	2.13 (1.7-2.63)
Strömstad	0.16 (0.04-0.41)	0.21 (0.03-0.77)
Tidaholm	0.47 (0.24-0.82)	0.5 (0.16-1.16)
Forshaga	0.41 (0.19-0.78)	0.62 (0.2-1.44)
Ludvika	0.87 (0.63-1.16)	1.14 (0.73-1.69)
Örnsköldsvik	0.34 (0.24-0.46)	0.22 (0.1-0.41)
Gällivare	1.83 (1.42-2.32)	1.9 (1.25-2.76)
Upplands-Bro	1.48 (1.14-1.88)	2.45 (1.64-3.52)
Tranås	0.4 (0.22-0.66)	0.13 (0.02-0.46)
Tingsryd	0.94 (0.61-1.37)	0.96 (0.5-1.68)
Sölvesborg	0.17 (0.06-0.36)	0.07 (0-0.4)
Kävlinge	0.13 (0.05-0.27)	0.12 (0.01-0.43)
Hörby	0.17 (0.05-0.39)	0.09 (0-0.51)
Munkedal	0.38 (0.16-0.74)	0.59 (0.19-1.38)
Färgelanda	1.12 (0.63-1.85)	0.4 (0.05-1.43)
Bollebygd	0.3 (0.1-0.69)	0 (0-0.66)
Uddevalla	0.69 (0.54-0.87)	0.78 (0.52-1.11)
Skinnskatteberg	0.1 (0-0.58)	0 (0-1.01)
Norsjö	0.12 (0-0.66)	0 (0-1.15)
Värmdö	1.65 (1.37-1.97)	2.32 (1.7-3.08)
Sundbyberg	2.49 (2.15-2.88)	3.9 (3.08-4.87)
Heby	0.36 (0.17-0.66)	0.47 (0.15-1.1)
Boxholm	0.62 (0.25-1.27)	0 (0-0.86)
Norrköping	1.45 (1.31-1.61)	1.29 (1.05-1.55)
Aneby	1.24 (0.71-2.01)	1.47 (0.59-3.03)
Härryda	0.62 (0.44-0.85)	0.69 (0.37-1.19)
Trollhättan	0.95 (0.77-1.16)	1.08 (0.77-1.47)
Årjäng	0.1 (0.01-0.36)	0 (0-0.48)
Hagfors	0.37 (0.18-0.68)	0.18 (0.02-0.65)

Leksand	0.83 (0.55-1.2)	1.09 (0.61-1.8)
Ockelbo	1.38 (0.8-2.21)	1.32 (0.49-2.88)
Härnösand	0.72 (0.5-0.99)	0.72 (0.4-1.22)
Haparanda	0.2 (0.05-0.5)	0 (0-0.5)
Tierp	0.53 (0.33-0.8)	0.25 (0.07-0.63)
Enköping	0.94 (0.74-1.18)	0.87 (0.56-1.28)
Ydre	0.49 (0.13-1.24)	0 (0-1.14)
Valdemarsvik	1.37 (0.87-2.03)	1.53 (0.77-2.74)
Ljungby	0.55 (0.37-0.78)	0.68 (0.38-1.12)
Bromölla	0.16 (0.04-0.41)	0.11 (0-0.61)
Malmö	0.65 (0.58-0.72)	0.48 (0.38-0.6)
Eslöv	0.34 (0.21-0.53)	0.25 (0.08-0.59)
Halmstad	0.39 (0.31-0.49)	0.22 (0.12-0.37)
Göteborg	1.23 (1.16-1.31)	1.62 (1.48-1.78)
Askersund	0.66 (0.38-1.07)	0.65 (0.24-1.42)
Sandviken	1.02 (0.81-1.28)	1.17 (0.8-1.64)
Arvidsjaur	0.45 (0.17-0.99)	0.38 (0.05-1.39)
Arjeplog	1.11 (0.45-2.28)	0 (0-1.39)
Kalix	0.17 (0.06-0.37)	0.15 (0.02-0.52)
Vårgårda	0.62 (0.33-1.05)	0.82 (0.3-1.78)
Sunne	0.36 (0.17-0.67)	0.66 (0.26-1.35)
Karlstad	0.56 (0.45-0.68)	0.3 (0.18-0.47)
Lekeberg	0.54 (0.24-1.07)	0 (0-0.7)
Laxå	0.64 (0.27-1.25)	2.3 (1.19-4.02)
Nora	0.23 (0.08-0.54)	0 (0-0.46)
Gävle	1.27 (1.11-1.45)	1.18 (0.93-1.49)
Strömsund	0.15 (0.04-0.4)	0.28 (0.06-0.82)
Vallentuna	0.85 (0.62-1.13)	0.69 (0.34-1.23)
Österåker	1.1 (0.88-1.36)	0.96 (0.61-1.44)
Botkyrka	3.22 (2.93-3.54)	2.37 (1.89-2.93)
Värnamo	0.88 (0.67-1.14)	1.09 (0.71-1.6)
Oskarshamn	0.43 (0.27-0.65)	0.25 (0.08-0.58)
Helsingborg	0.6 (0.51-0.71)	0.9 (0.72-1.13)
Tranemo	0.8 (0.48-1.25)	0.64 (0.24-1.4)
Lidköping	0.46 (0.32-0.63)	0.88 (0.57-1.3)
Kil	0.17 (0.05-0.44)	0.11 (0-0.63)
Berg	0.65 (0.31-1.19)	1.11 (0.45-2.28)
Emmaboda	0.2 (0.05-0.5)	0 (0-0.43)
Lund	0.25 (0.18-0.33)	0.31 (0.19-0.48)
Lilla Edet	0.8 (0.49-1.24)	1.12 (0.51-2.12)
Åmål	0.49 (0.26-0.84)	0.36 (0.1-0.92)
Hällefors	0.59 (0.27-1.12)	1.08 (0.43-2.23)
Hedemora	0.67 (0.41-1.02)	0.42 (0.14-0.98)
Bollnäs	0.71 (0.5-0.97)	0.44 (0.2-0.83)

Skellefteå	0.33 (0.25-0.44)	0.29 (0.16-0.48)
Ekerö	1.12 (0.84-1.46)	1.04 (0.58-1.72)
Knivsta	0.97 (0.64-1.43)	0.72 (0.23-1.67)
Vetlanda	0.68 (0.48-0.93)	0.45 (0.22-0.83)
Huddinge	2.34 (2.12-2.59)	2.43 (1.99-2.93)
Uppsala	1.32 (1.2-1.44)	1.41 (1.2-1.64)
Linköping	0.94 (0.82-1.06)	1.02 (0.82-1.24)
Markaryd	1.06 (0.66-1.6)	1.17 (0.56-2.16)
Ronneby	0.2 (0.11-0.36)	0.17 (0.05-0.44)
Staffanstorps	0.21 (0.1-0.4)	0.14 (0.02-0.5)
Östra Göinge	0.32 (0.15-0.61)	0.28 (0.06-0.83)
Trelleborg	0.33 (0.22-0.48)	0.3 (0.14-0.57)
Bengtstors	0.42 (0.19-0.79)	0.33 (0.07-0.96)
Grums	0.65 (0.33-1.13)	0.7 (0.23-1.64)
Härjedalen	0.36 (0.15-0.7)	0.11 (0-0.6)
Vilhelmina	0 (0-0.27)	0 (0-0.7)
Salem	1.75 (1.29-2.32)	1.97 (1.17-3.11)
Skurup	0.25 (0.1-0.51)	0.1 (0-0.58)
Ystad	0.13 (0.05-0.25)	0.04 (0-0.22)
Kristianstad	0.25 (0.18-0.34)	0.24 (0.13-0.4)
Hylte	0.1 (0.01-0.35)	0.13 (0-0.71)
Lerum	0.74 (0.55-0.96)	0.61 (0.33-1.03)
Svenljunga	0.47 (0.22-0.86)	0.13 (0-0.72)
Lysekil	0.22 (0.09-0.45)	0.37 (0.12-0.87)
Skara	0.82 (0.55-1.18)	1.33 (0.78-2.13)
Degerfors	0.97 (0.59-1.5)	1.24 (0.6-2.28)
Gagnef	0.5 (0.24-0.91)	1.35 (0.65-2.49)
Rättvik	0.38 (0.18-0.71)	0.26 (0.05-0.76)
Timrå	1.33 (0.97-1.78)	1.3 (0.73-2.15)
Dorotea	0 (0-0.59)	0 (0-1.3)
Vännäs	0.19 (0.04-0.54)	0 (0-0.62)
Täby	1.09 (0.91-1.28)	1.23 (0.93-1.6)
Strängnäs	0.58 (0.41-0.79)	0.52 (0.27-0.91)
Söderköping	0.91 (0.6-1.34)	0.59 (0.22-1.28)
Nässjö	1.44 (1.15-1.78)	1.15 (0.75-1.69)
Torsås	0.91 (0.5-1.53)	1.95 (1.01-3.41)
Västervik	0.33 (0.21-0.48)	0.43 (0.23-0.72)
Vellinge	0.25 (0.14-0.4)	0.16 (0.04-0.42)
Lomma	0.2 (0.09-0.38)	0 (0-0.23)
Osby	0.34 (0.15-0.64)	0.36 (0.1-0.92)
Tanum	0.43 (0.22-0.76)	0.45 (0.15-1.05)
Hjo	0.21 (0.06-0.54)	0 (0-0.49)
Ljusnarsberg	0.19 (0.02-0.68)	0 (0-0.9)
Karlskoga	0.82 (0.61-1.09)	0.67 (0.38-1.09)

Västerås	1.26 (1.13-1.4)	1.38 (1.15-1.63)
Köping	1.15 (0.87-1.48)	0.84 (0.49-1.35)
Håbo	0.76 (0.5-1.11)	1 (0.48-1.85)
Eskilstuna	1.66 (1.48-1.85)	1.57 (1.28-1.9)
Motala	0.64 (0.48-0.84)	0.39 (0.2-0.68)
Landskrona	0.25 (0.15-0.38)	0.04 (0-0.2)
Norberg	0.67 (0.29-1.32)	0.43 (0.05-1.57)
Arboga	0.63 (0.37-1)	1 (0.5-1.78)
Ragunda	0.5 (0.18-1.09)	0 (0-0.72)
Umeå	0.27 (0.21-0.36)	0.14 (0.06-0.27)
Älvsbyn	0.18 (0.04-0.52)	0.15 (0-0.84)
Eksjö	0.57 (0.35-0.87)	0.28 (0.08-0.72)
Klippan	0.21 (0.08-0.42)	0.16 (0.02-0.57)
Båstad	0.35 (0.18-0.61)	0.21 (0.04-0.61)
Höganäs	0.23 (0.13-0.4)	0.18 (0.05-0.47)
Stenungsund	0.47 (0.29-0.71)	0.13 (0.02-0.47)
Mark	0.64 (0.47-0.87)	0.75 (0.45-1.17)
Nordanstig	0.67 (0.36-1.14)	0.56 (0.15-1.44)
Kinda	0.82 (0.48-1.31)	1.11 (0.51-2.12)
Mullsjö	0.51 (0.2-1.04)	0.19 (0-1.06)
Vimmerby	0.22 (0.09-0.45)	0.24 (0.05-0.69)
Öckerö	0.73 (0.44-1.15)	0.84 (0.36-1.65)
Ale	0.91 (0.66-1.21)	0.26 (0.07-0.67)
Kumla	1.23 (0.9-1.64)	1.07 (0.59-1.8)
Orsa	0.14 (0.02-0.49)	0 (0-0.62)
Smedjebacken	0.87 (0.53-1.34)	0.94 (0.41-1.85)
Falun	0.97 (0.79-1.17)	1.13 (0.82-1.52)
Avesta	0.61 (0.4-0.88)	0.68 (0.35-1.18)
Ljusdal	0.63 (0.41-0.93)	0.51 (0.22-1)
Åsele	0 (0-0.58)	0 (0-1.34)
Haninge	2.13 (1.9-2.39)	2.6 (2.11-3.17)
Karlsborg	0.33 (0.11-0.77)	0 (0-0.6)
Hammarö	0.39 (0.19-0.69)	0.22 (0.03-0.79)
Kristinehamn	0.63 (0.43-0.89)	0.44 (0.2-0.84)
Filipstad	1.36 (0.93-1.93)	0.93 (0.43-1.77)
Säffle	0.27 (0.12-0.51)	0.14 (0.02-0.52)
Hallstahammar	0.88 (0.58-1.27)	0.16 (0.02-0.57)
Älvdalen	0.19 (0.04-0.57)	0.16 (0-0.89)
Säter	0.85 (0.51-1.32)	0.72 (0.26-1.57)
Söderhamn	0.52 (0.35-0.75)	1.01 (0.62-1.54)

Significant values (95% confidence intervals) at $p < 0.05$ are marked in bold.

Table A2. Distribution of study contextual factors in municipalities inside and outside the spatial clusters

Outcome	Variables	Municipalities inside the Clusters n=50	Municipalities outside the clusters n=240
		Median (IQR)	Median (IQR)
Hospitalizations	Population density (Inhab./km ²)	96.1 (33.9 - 206.1)	23.1 (10.5 - 52.6)
	Gini index	0.3 (0.3 - 0.3)	0.3 (0.3 - 0.3)
	Mean income (Thousands of SEK)	316.8 (293.8 - 354.9)	293.6 (280.1 - 309.5)
	Proportion of immigrants (%)	18.7 (14.9 - 26.1)	13.4 (10.8 - 17.6)
	Proportion of inhabitants with primary education (%)	16.8 (12.8 - 20.9)	20.8 (17.6 - 23.5)
	Proportion of Population 65+ (%)	19.2 (16.1 - 24.0)	24.8 (21.7 - 27.5)
Outcome	Variables	Municipalities inside the Clusters n=22	Municipalities outside the clusters n= 268
		Median (IQR)	Median (IQR)
Mortality	Population density (Inhab./km ²)	401.1 (92.9 - 1380.3)	24.8 (11.6 - 64.0)
	Gini index	0.3 (0.3 - 0.3)	0.3 (0.3 - 0.3)
	Mean income (Thousands of SEK)	358.6 (320.3 - 385.8)	294.9 (281.2 - 310.5)
	Proportion of immigrants (%)	20.5 (17.6 - 29.3)	13.7 (10.9 - 17.8)
	Proportion of inhabitants with primary education (%)	12.8 (10.2 - 14.8)	20.7 (17.4 - 23.2)
	Proportion of Population 65+ (%)	16.6 (15.4 - 19.3)	24.6 (21.3 - 27.2)

Table A3. Rate ratio of hospitalizations and mortality between population younger than 65 and aged 65+ within spatial clusters and outside spatial clusters.

Outcome		Municipalities outside the clusters	Municipalities inside the Clusters
Hospitalizations	Hospitalizations 65+	3706	5762
	Population 65+	1363551	701816
	Hospitalizations <65	3176	5603
	Population <65	4858684	3403538
	Rate Ratio (95%CI)	4.16 (3.97 - 4.36)	4.99 (4.81 - 5.17)
	p-value	<0.001	<0.001
Mortality	Deaths 65+	3403	2600
	Population 65+	1654323	411044
	Deaths <65	186	195
	Population <65	6055915	2206307
	Rate Ratio (95%CI)	66.97 (57.78 - 77.63)	71.57 (61.88 - 82.78)
	p-value	<0.001	<0.001