

## SUPPLEMENTARY INFORMATION

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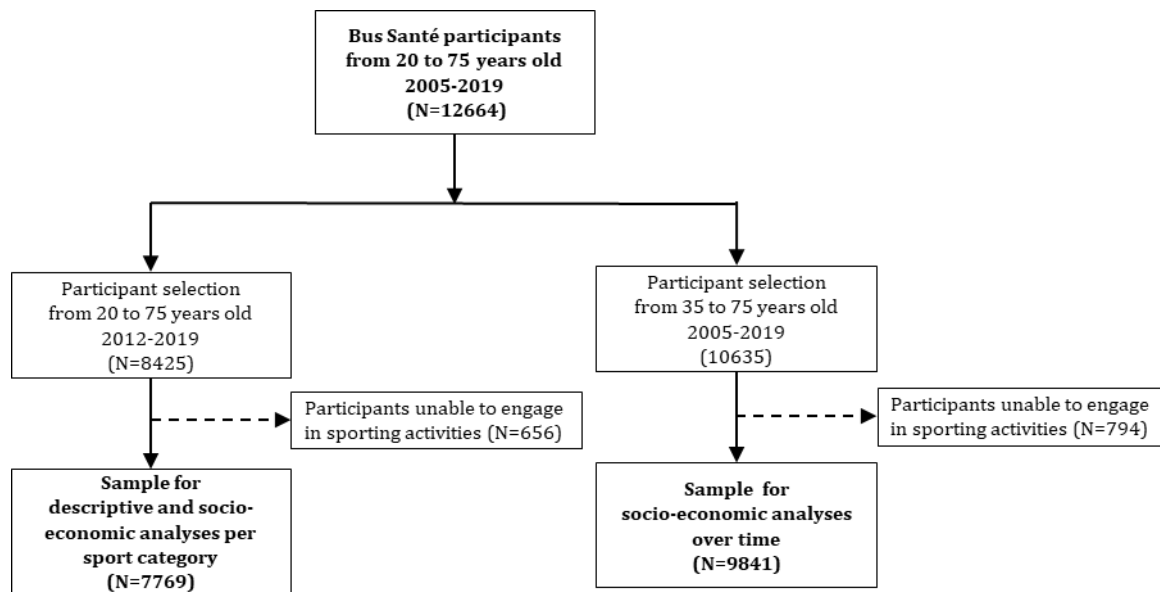
### **Socioeconomic inequalities in sport participation: pattern per sport and time trends – A repeated cross-sectional study**

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Supplementary 1: Participant's selection process

## Supplementary 2: Relative index of inequality (RII) of the educational level, household income and occupational position among adults aged 20 to 75 years old, stratified by sport category and sex

Sport category <sup>c</sup>	All				Men				Women			
	Minimally adj. <sup>a</sup>		Fully adj. <sup>b</sup>		Minimally adj. <sup>a</sup>		Fully adj. <sup>b</sup>		Minimally adj. <sup>a</sup>		Fully adj. <sup>b</sup>	
	RII	CI (95%)	RII	CI (95%)	RII	CI (95%)	RII	CI (95%)	RII	CI (95%)	RII	CI (95%)
<b>All</b>												
Educational level	1.78	1.64-1.92	1.56	1.45-1.69	1.77	1.59-1.98	1.55	1.39-1.73	1.77	1.58-1.98	1.56	1.39-1.74
Household income	1.61	1.50-1.73	1.45	1.35-1.55	1.65	1.49-1.81	1.48	1.34-1.63	1.57	1.42-1.74	1.40	1.27-1.56
Occupational position	1.60	1.47-1.74	1.46	1.35-1.59	1.68	1.50-1.88	1.54	1.38-1.73	1.50	1.32-1.71	1.35	1.19-1.54
<b>Individual<sup>c</sup></b>												
Educational level	1.83	1.64-2.03	1.56	1.40-1.74	1.83	1.59-2.12	1.54	1.33-1.77	1.81	1.55-2.12	1.58	1.34-1.85
Household income	1.70	1.55-1.88	1.51	1.37-1.66	1.66	1.46-1.89	1.47	1.29-1.67	1.76	1.52-2.04	1.55	1.33-1.79
Occupational position	1.77	1.58-1.98	1.58	1.41-1.77	1.89	1.63-2.19	1.69	1.46-1.96	1.60	1.33-1.93	1.42	1.18-1.71
<b>Racket<sup>c</sup></b>												
Educational level	3.69	2.41-5.64	3.18	2.06-4.88	5.34	3.13-9.10	4.66	2.73-7.94	1.68	0.82-3.43	1.35	0.64-2.82
Household income	2.87	1.98-4.16	2.50	1.71-3.66	3.65	2.38-5.62	3.21	2.07-4.98	1.50	0.72-3.14	1.22	0.57-2.63
Occupational position	2.78	1.87-4.13	2.45	1.64-3.68	3.69	2.34-5.82	3.37	2.13-5.34	1.02	0.37-2.79	0.71	0.24-2.08
<b>Group<sup>c</sup></b>												
Educational level	1.79	1.53-2.09	1.58	1.35-1.86	1.48	1.14-1.92	1.31	1.00-1.70	2.01	1.66-2.44	1.77	1.45-2.16
Household income	1.36	1.18-1.57	1.22	1.05-1.41	1.17	0.92-1.49	1.03	0.80-1.32	1.49	1.25-1.78	1.34	1.12-1.61
Occupational position	1.37	1.14-1.65	1.27	1.05-1.52	1.10	0.83-1.44	1.02	0.77-1.35	1.65	1.30-2.09	1.52	1.19-1.93
<b>Special<sup>c</sup></b>												
Educational level	4.47	3.20-6.25	3.81	2.71-5.38	4.78	3.07-7.42	4.19	2.67-6.58	4.18	2.51-6.97	3.41	2.01-5.79
Household income	4.34	3.25-5.80	3.70	2.75-4.98	5.23	3.58-7.64	4.51	3.05-6.66	3.45	2.19-5.42	2.94	1.85-4.67
Occupational position	4.06	2.88-5.74	3.69	2.59-5.24	4.31	2.78-6.70	3.99	2.55-6.25	3.98	2.24-7.07	3.55	1.98-6.38

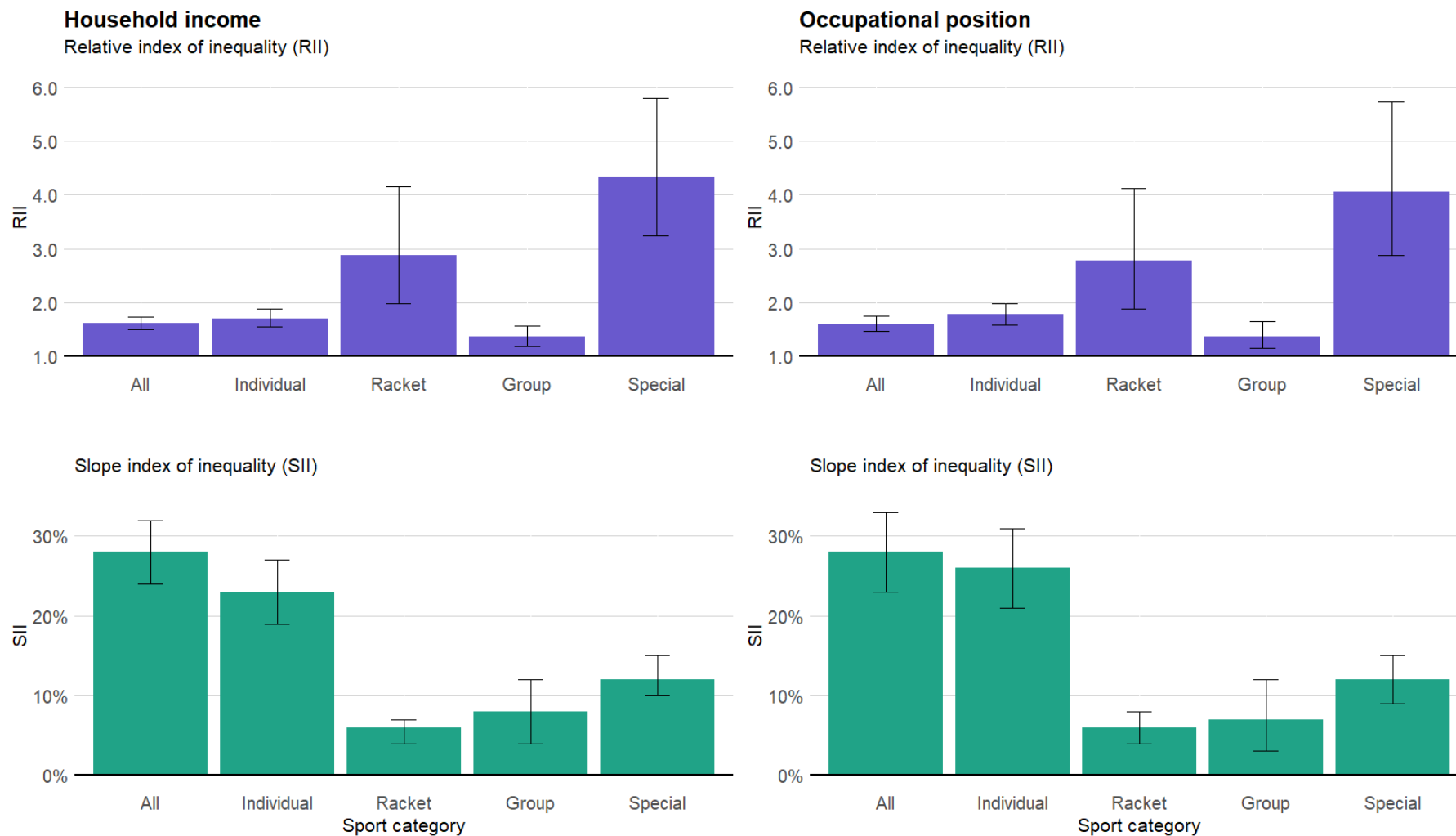
<sup>a</sup> Generalized linear model following a quasi-Poisson distribution, adjusted for age, sex, an interaction between age and sex, and country of birth.

<sup>b</sup> Generalized linear model following a quasi-Poisson distribution, adjusted for age, sex, an interaction between age and sex, country of birth, smoking, BMI, self-perceived health and presence of chronic disease. <sup>c</sup> Sport categories: Individual (running, brisk walking, racing bicycle, strength training/weightlifting, swimming, ice-/roller-skating); Racket (tennis/badminton, squash); Group (dance, football, handball, gymnastics, judo/karate); Special (golf, downhill/water skiing, cross-country skiing, diving)

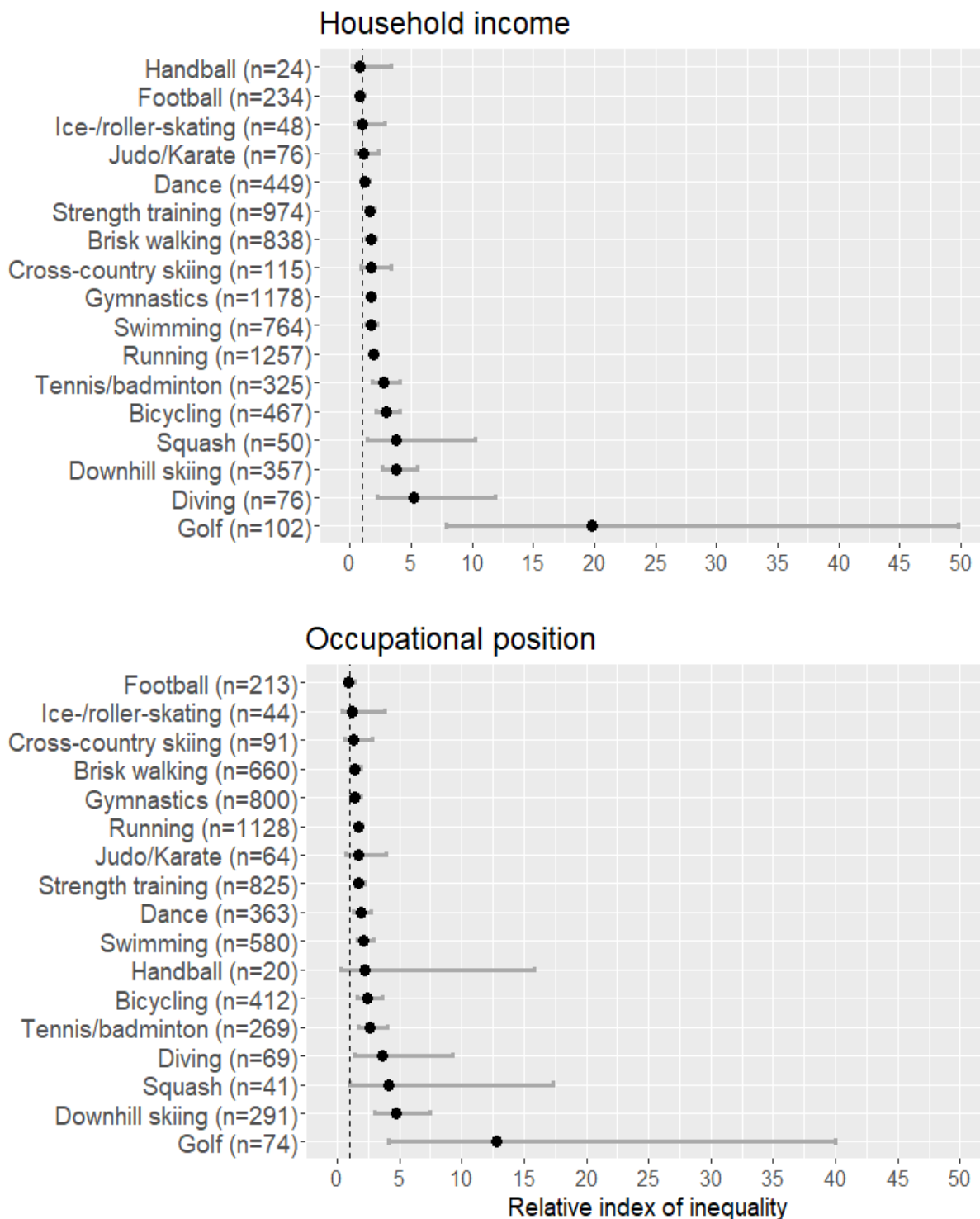
Supplementary 3: Slope index of inequality (SII) of the educational level, household income and occupational position among adults aged 20 to 75 years old, stratified by sport category and sex

Sport category <sup>c</sup>	All				Men				Women			
	Minimally adj. <sup>a</sup>		Fully adj. <sup>b</sup>		Minimally adj. <sup>a</sup>		Fully adj. <sup>b</sup>		Minimally adj. <sup>a</sup>		Fully adj. <sup>b</sup>	
	SII	CI (95%)	SII	CI (95%)	SII	CI (95%)	SII	CI (95%)	SII	CI (95%)	SII	CI (95%)
<b>All</b>												
Educational level	0.33	0.29-0.37	0.26	0.21-0.30	0.33	0.27-0.40	0.26	0.19-0.32	0.33	0.26-0.39	0.26	0.19-0.32
Household income	0.28	0.24-0.32	0.22	0.18-0.26	0.30	0.24-0.36	0.24	0.18-0.30	0.27	0.21-0.32	0.20	0.14-0.26
Occupational position	0.28	0.23-0.33	0.23	0.18-0.28	0.32	0.25-0.38	0.27	0.20-0.33	0.24	0.16-0.31	0.18	0.10-0.25
<b>Individual<sup>c</sup></b>												
Educational level	0.25	0.21-0.30	0.19	0.14-0.23	0.27	0.21-0.33	0.19	0.13-0.25	0.24	0.17-0.30	0.18	0.12-0.24
Household income	0.23	0.19-0.27	0.18	0.14-0.22	0.23	0.17-0.29	0.18	0.12-0.24	0.23	0.17-0.29	0.18	0.12-0.24
Occupational position	0.26	0.21-0.31	0.21	0.15-0.26	0.30	0.23-0.37	0.25	0.18-0.32	0.19	0.12-0.27	0.14	0.07-0.22
<b>Racket<sup>c</sup></b>												
Educational level	0.06	0.04-0.08	0.05	0.03-0.07	0.11	0.08-0.14	0.10	0.07-0.14	0.01	-0.01-0.03	0.01	-0.01-0.03
Household income	0.06	0.04-0.07	0.05	0.03-0.07	0.10	0.06-0.13	0.09	0.06-0.12	0.01	-0.01-0.03	0.01	-0.02-0.03
Occupational position	0.06	0.04-0.08	0.05	0.03-0.07	0.10	0.06-0.13	0.09	0.06-0.13	0.00	-0.03-0.03	-0.01	-0.04-0.02
<b>Group<sup>c</sup></b>												
Educational level	0.15	0.11-0.19	0.12	0.08-0.16	0.08	0.03-0.13	0.05	0.00-0.11	0.21	0.15-0.27	0.17	0.12-0.23
Household income	0.08	0.04-0.12	0.05	0.01-0.09	0.03	-0.02-0.08	0.01	-0.04-0.06	0.13	0.07-0.18	0.09	0.04-0.15
Occupational position	0.07	0.03-0.12	0.06	0.01-0.10	0.02	-0.04-0.07	0.00	-0.05-0.06	0.14	0.08-0.21	0.12	0.05-0.19
<b>Special<sup>c</sup></b>												
Educational level	0.11	0.09-0.14	0.10	0.08-0.12	0.14	0.10-0.18	0.13	0.09-0.17	0.09	0.06-0.11	0.07	0.04-0.10
Household income	0.12	0.10-0.15	0.11	0.09-0.13	0.16	0.13-0.20	0.15	0.11-0.19	0.08	0.05-0.11	0.07	0.04-0.10
Occupational position	0.12	0.09-0.15	0.11	0.08-0.14	0.15	0.11-0.20	0.14	0.10-0.19	0.08	0.05-0.12	0.08	0.04-0.12

<sup>a</sup> Linear model adjusted for age, sex, an interaction between age and sex, and country of birth. <sup>b</sup> Linear model adjusted for age, sex, an interaction between age and sex, country of birth, smoking, BMI, self-perceived health and presence of chronic disease. <sup>c</sup> Sport categories: Individual (running, brisk walking, racing bicycle, strength training/weightlifting, swimming, ice-/roller-skating); Racket (tennis/badminton, squash); Group (dance, football, handball, gymnastics, judo/karate); Special (golf, downhill/water skiing, cross-country skiing, diving).



Supplementary 4: Relative and slope indexes of inequality (RII/SII) and 95% confidence intervals of sport participation among Geneva adults aged 20 to 75 years old stratified by sport category. Generalized linear model following a quasi-Poisson distribution for the RII and linear model for the SII. Minimal model, adjusted for age, sex, an interaction between age and sex, and country of birth. Sport categories: Individual (running, brisk walking, racing bicycle, strength training/weightlifting, swimming, ice-/roller-skating); Racket (tennis/badminton, squash); Group (dance, football, handball, gymnastics, judo/karate); Special (golf, downhill/water skiing, cross-country skiing, diving). N=6925 for household income and n=5428 for occupational position.



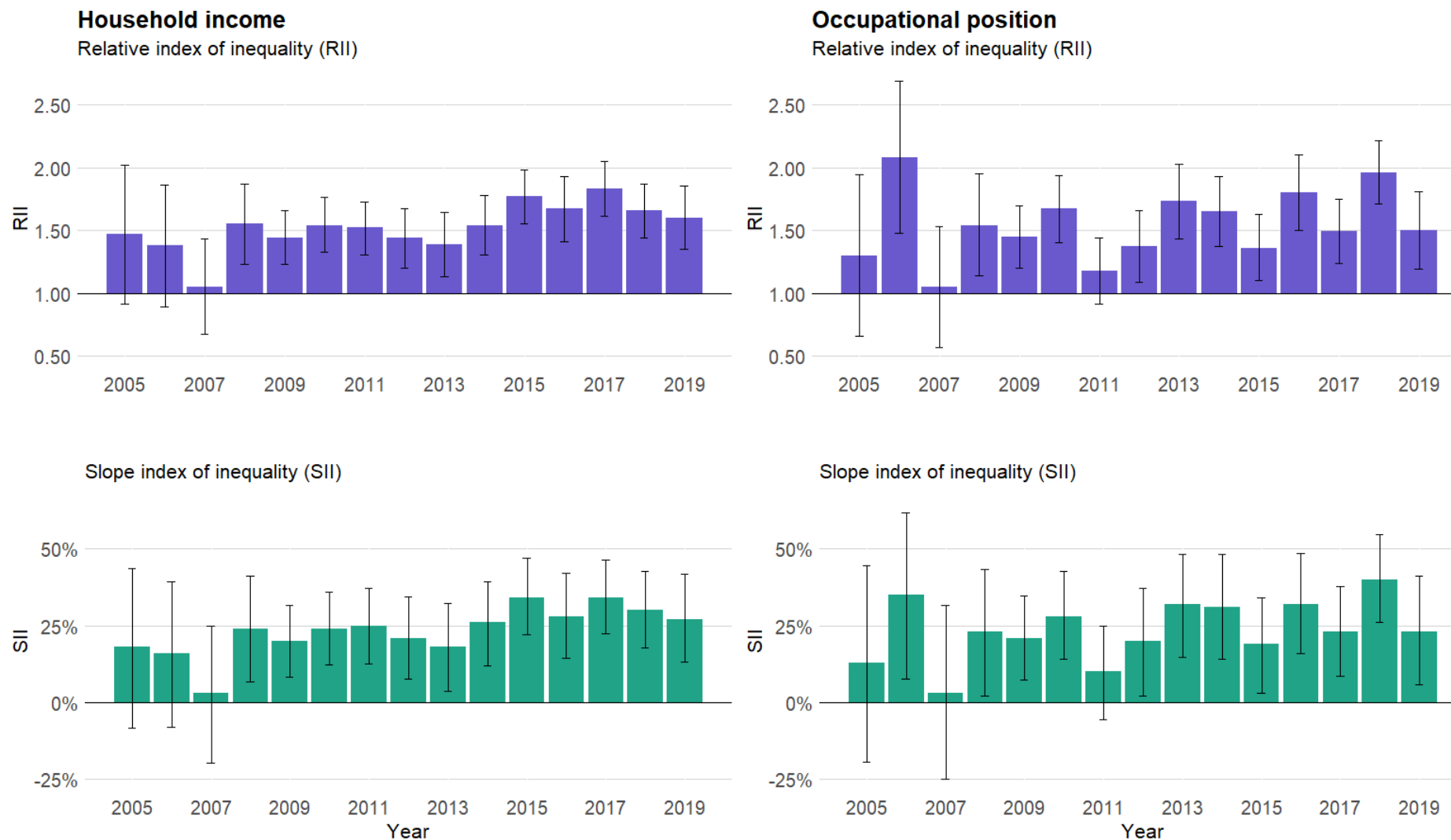
Supplementary 5: Relative index of inequality (RII), stratified by specific sport among Geneva adults aged 20 to 75 years old. Generalized linear model following a quasi-Poisson distribution adjusted for age, sex, an interaction between age and sex, and country of birth. N=6925 for household income and n=5428 for occupational position.

Supplementary 6: Yearly change of the relative and slope index of inequality (RII/SII) of sport participation from 2005 to 2019 among adults aged 35 to 75 years old, and sensitivity analysis from 2008 to 2019

	All		Men				Women				35-54 years old		55-75 years old							
	Minimally adj. <sup>c</sup>		Fully adj. <sup>d</sup>		Minimally adj. <sup>c</sup>		Fully adj. <sup>d</sup>		Minimally adj. <sup>c</sup>		Fully adj. <sup>d</sup>		Minimally adj. <sup>c</sup>		Fully adj. <sup>d</sup>					
	$\beta$	P-value	$\beta$	P-value	$\beta$	P-value	$\beta$	P-value	$\beta$	P-value	$\beta$	P-value	$\beta$	P-value	$\beta$	P-value				
<b>2005-2019</b>																				
<b>Relative index of inequality<sup>a</sup></b>																				
Educational level	1.01	0.184	1.02	0.119	1.02	0.180	1.02	0.348	1.01	0.421	1.02	0.155	1.00	0.808	1.00	0.955	<b>1.04</b>	<b>0.024</b>	<b>1.04</b>	<b>0.013</b>
Household income	1.02	0.064	1.01	0.281	1.01	0.618	0.99	0.444	<b>1.03</b>	<b>0.028</b>	<b>1.03</b>	<b>0.024</b>	1.00	0.807	0.98	0.200	<b>1.04</b>	<b>0.006</b>	<b>1.05</b>	<b>0.003</b>
Occupational position	1.01	0.412	1.00	0.794	1.01	0.454	1.00	0.913	1.01	0.665	1.01	0.575	1.02	0.158	1.01	0.479	0.99	0.806	0.99	0.575
<b>Slope index of inequality<sup>b</sup></b>																				
Educational level	0.01	0.099	0.01	0.067	0.01	0.169	0.01	0.242	0.01	0.317	0.01	0.150	0.00	0.545	0.00	0.813	<b>0.02</b>	<b>0.017</b>	<b>0.02</b>	<b>0.008</b>
Household income	<b>0.01</b>	<b>0.024</b>	0.01	0.148	0.01	0.405	0.00	0.684	<b>0.02</b>	<b>0.012</b>	<b>0.02</b>	<b>0.013</b>	0.00	0.535	-0.01	0.292	<b>0.02</b>	<b>0.003</b>	<b>0.02</b>	<b>0.002</b>
Occupational position	0.01	0.248	0.00	0.587	0.01	0.309	0.00	0.849	0.01	0.589	0.01	0.666	0.01	0.072	0.01	0.291	0.00	0.869	-0.01	0.598
<b>2008-2019</b>																				
<b>Relative index of inequality<sup>a</sup></b>																				
Educational level	1.01	0.404	1.01	0.409	1.01	0.632	1.00	0.847	1.01	0.380	1.02	0.281	1.00	0.978	0.99	0.648	<b>1.03</b>	<b>0.082</b>	<b>1.04</b>	<b>0.037</b>
Household income	1.01	0.167	1.01	0.442	1.00	0.999	0.98	0.394	<b>1.03</b>	<b>0.033</b>	<b>1.03</b>	<b>0.045</b>	1.00	0.860	0.98	0.276	<b>1.04</b>	<b>0.029</b>	<b>1.05</b>	<b>0.008</b>
Occupational position	1.01	0.336	1.00	0.748	1.01	0.585	1.00	0.911	1.02	0.379	1.00	0.829	1.02	0.178	1.01	0.563	1.00	0.961	0.99	0.834
<b>Slope index of inequality<sup>b</sup></b>																				
Educational level	0.01	0.330	0.01	0.317	0.00	0.681	0.00	0.777	0.01	0.308	0.01	0.254	0.00	0.781	0.00	0.724	<b>0.02</b>	<b>0.090</b>	<b>0.02</b>	<b>0.032</b>
Household income	0.01	0.097	0.01	0.283	0.00	0.802	-0.01	0.573	<b>0.02</b>	<b>0.021</b>	<b>0.02</b>	<b>0.032</b>	0.00	0.615	-0.01	0.357	<b>0.02</b>	<b>0.027</b>	<b>0.02</b>	<b>0.007</b>
Occupational position	0.01	0.244	0.00	0.587	0.01	0.460	0.00	0.732	0.01	0.332	0.00	0.801	0.01	0.097	0.01	0.384	0.00	0.980	0.00	0.841

$\beta$  : yearly change of the RII/SII (exponential of the coefficient of the socioeconomic indicator x year term for the RII; coefficient of the socioeconomic indicator x year term for the SII). Results in bold indicate a p-value < 0.05.

<sup>a</sup> Generalized linear model following a quasi-Poisson distribution; <sup>b</sup> Linear model; <sup>c</sup> Adjusted for socioeconomic indicator, age, sex, country of birth, year, and interactions: age x sex, socioeconomic indicator x year, age x year, sex x year, country of birth x year; <sup>d</sup> Adjusted for socioeconomic indicator, age, sex, country of birth, smoking, BMI, self-perceived health, presence of chronic disease and interactions: year, age x sex, socioeconomic indicator x year, age x year, sex x year, country of birth x year, smoking x year, BMI x year, self-perceived health x year, presence of chronic disease x year.



Supplementary 7: Relative and slope indexes of inequality (RII/SII) and 95% confidence intervals of sport participation, per year, among Geneva adults aged 35 to 75 years old. Generalized linear model following a quasi-Poisson distribution for the RII and linear model for the SII. Minimal model adjusted for sex, age, an interaction between age and sex, and country of birth. N=9251 for household income and n=6967 for occupational position.