

Appendix 1: Candidate social predictors

STEM	QUESTION	DOMAIN
These questions ask how you feel about your local area, that is everywhere within a 20 minute walk or about a mile of your home.	I really feel part of this area/I feel that I don't belong in this area	General Resources
	There is no problem with vandalism and graffiti in this area/Vandalism and graffiti are a big problem in this area	General Resources
	Most people in this area can be trusted/Most people in this area can't be trusted	General Resources
	People feel safe walking alone in this area after dark/People would be afraid to walk alone in this area after dark	General Resources
	Most people in this area are friendly/Most people in this area are unfriendly	General Resources
	This area is kept very clean/This area is always full of rubbish and litter	General Resources
	If you were in trouble, there are lots of people in this area who would help you/If you were in trouble, there is nobody in this area who would help you	General Resources
	There are no vacant houses or storefronts in this area/There are many vacant or deserted houses or storefronts in this area	General Resources
	Using a 0 to 10 scale where 0 means "no control at all" and 10 means "very much control," how would you rate the amount of control you have over your financial situation these days? (Mark (X) one number)	General Resources
	Has the amount of control you have over your financial situation changed in the last year?	General Resources
For each of the following events, please indicate whether the event occurred AT ANY POINT IN YOUR LIFE.	Have you ever been homeless or lived in a shelter?	General Resources
	Have you ever been an inmate in a jail, prison, juvenile detention center, or\ other correctional facility?	General Resources
	At any time in your life, have you ever been unfairly dismissed from a job? If yes, what year?	General Resources
	For unfair reasons, have you ever not been hired for a job? If yes, what year?	General Resources
	Have you ever been unfairly denied a promotion? If yes, what year?	General Resources
	Have you ever been unfairly prevented from moving into a neighborhood because the landlord or a realtor refused to sell or rent you a house or apartment? If yes, what year?	General Resources
	Have you ever been unfairly denied a bank loan? If yes, what year?	General Resources
	Have you ever been unfairly stopped, searched, questioned, physically threatened or abused by the police? If yes, what year?	General Resources
	Have you ever been unfairly denied health care or treatment? If yes, what year?	General Resources

STEM	QUESTION	DOMAIN
	Has a child of yours ever died? If yes, what year?	General Resources
	Have you ever been in a major fire, flood, earthquake, or other natural disaster? If yes, what year?	General Resources
	Have you ever fired a weapon in combat or been fired upon in combat? If yes, what year?	General Resources
	Has your spouse, partner, or child ever been addicted to drugs or alcohol? If yes, what year?	General Resources
	Were you the victim of a serious physical attack or assault? If yes, what year?	General Resources
	Did you ever have a life-threatening illness or accident? If yes, what year?	General Resources
	Did your spouse or a child of yours ever have a life-threatening illness or accident? If yes, what year?	General Resources
For this next set of events, please think about your childhood growing up, BEFORE YOU WERE 18 YEARS OLD	Before you were 18 years old, did you have to do a year of school over again?	General Resources
	Before you were 18 years old, were you ever in trouble with the police?	General Resources
	Before you were 18 years old, did either of your parents drink or use drugs so often that it caused problems in the family?	General Resources
	Before you were 18 years old, were you ever physically abused by either of your parents?	Fulfillment of Basic Social Needs
Now please think about the LAST 5 YEARS and indicate whether each of the events below occurred. If the event did happen, please indicate the year in which it happened MOST RECENTLY.	Have you involuntarily lost a job for reasons other than retirement at any point in the past five years? If yes, what year?	General Resources
	Have you been unemployed and looking for work for longer than 3 months at some point in the past five years? If yes, what year?	General Resources
	Was anyone else in your household unemployed and looking for work for longer than 3 months in the past five years? If yes, what year?	General Resources
	Have you moved to a worse residence or neighborhood in the past five years? If yes, what year?	General Resources
	Were you robbed or did you have your home burglarized in the past five years? If yes, what year?	General Resources
	Have you been the victim of fraud in the past five years? If yes, what year?	General Resources
Please think about your life and situation RIGHT NOW. HOW SATISFIED ARE YOU WITH...	The condition of the place where you live (house or apartment)?	General Resources
	The city or town you live in?	General Resources
	Your daily life and leisure activities?	General Resources
	Your family life?	Social Resources
	Your present financial situation?	General Resources

STEM	QUESTION	DOMAIN
	The total income of your household?	General Resources
	Are you currently working?	General resources
Right now, would you like to leave work altogether, but plan to keep working because...	You need money	General resources
	You need health insurance	General resources
Please use the scale below to answer the next set of questions. (Mark (X) one box for each line.)	My home life keeps me from getting work done on time on my job.	General resources
	My work leaves me enough time to attend to my personal responsibilities.	General resources
Please say how much you agree or disagree with each of the following statements. (Mark (X) one box for each line.)	All things considered, I am satisfied with my job.	General resources
	My job is physically demanding.	General resources
	My job promotion prospects are poor.	General resources
	My job security is poor.	General resources
	I have the opportunity to develop new skills.	General resources
	The demands of my job interfere with my personal life.	General resources
	The people I work with can be relied on when I need help	Social Resources
	How difficult is it for (you/your family) to meet monthly payments on (your/your family's) bills?	General Resources
	Race	General Resources
	Whether Hispanic	General Resources
	Educational attainment	General Resources
	Receives social security	General resources
	currently receiving pension income	General Resources
	Covered by federal gov health insurance	General Resources
	covered by current or previous employer	General Resources
	labor force status	General resources
	current job requires physical effort	General resources
	current job involves lots of stress	General resources
	Think of this ladder as representing where people stand in our society. At the top of the ladder are the people who are the best off - those who have the most money, most education, and best jobs. At the bottom are the people who are the worst off - who have the least money, least education, and the worst jobs or no jobs. The higher up you are on this ladder, the closer you are to the people at the very top and the lower you are, the closer you are to the people at the very bottom.	General Resources

STEM	QUESTION	DOMAIN
	Has your position on the ladder changed within the last two years?	General Resources
Please read the list below and indicate whether or not any of these are current and ongoing problems that have lasted twelve months or longer. If the problem is happening to you, indicate how upsetting it has been. Check the answer that is most like your current situation.	Ongoing physical or emotional problems (in spouse or child)	Fulfillment of Basic Social Needs
	Ongoing problems with alcohol or drug use in family member	Social Resources
	Ongoing difficulties at work	Social Behavior and Activities
	Ongoing financial strain	General Resources
	Ongoing housing problems	General Resources
	Ongoing problems in a close relationship	Fulfillment of Basic Social Needs
	Helping at least one sick, limited, or frail family member or friend on a regular basis	General Resources
	Total Wealth (Including Secondary Residence)	General Resources
	Change in wealth	General Resources
	Do you have a husband, wife, or partner with whom you live?	Social Resources
	Do you have any living children?	Social resources
	How many of your children would you say you have a close relationship with?	Social Resources
	Do you have any OTHER IMMEDIATE FAMILY, for example, any brothers or sisters, parents, cousins or grandchildren?	Social Resources
The next statements are about people's relationships with their parents early in life (before age 18). Please tell us how much you agree or disagree with each statement for you personally. (Mark (X) one box for each line.)	I had a good relationship with my mother before age 18.	Social Resources
	I had a good relationship with my father before age 18.	Social Resources
	Couple household?	Social Resources
	Marital Status	Social Resources
	Mother alive	Social Resources
	Father alive	Social Resources
	Number of people in household	Social Resources
	Number of children	Social Resources
	Number of living siblings	Social Resources
	How many of these family members would you say you have a close relationship with?	Social Resources
	Do you have any friends?	Social Resources
	How many of your friends would you say you have a close relationship with?	Social Resources

STEM	QUESTION	DOMAIN
HOW OFTEN YOU DO EACH ACTIVITY.	Care for a sick or disabled adult?	Social Behavior and Activities
	Do activities with grandchildren, nieces/nephews, or neighborhood children?	Social Behavior and Activities
	Do volunteer work with children or young people?	Social Behavior and Activities
	Do any other volunteer or charity work?	Social Behavior and Activities
	Go to a sport, social, or other club?	Social Behavior and Activities
	Attend meetings of non-religious organizations, such as political, community, or other interest groups?	Social Behavior and Activities
On average, how often do you do each of the following with any of your children, not counting any who live with you?	Meet up (include both arranged and chance meetings)	Social Behavior and Activities
	Speak on the phone	Social Behavior and Activities
	Write or email	Social Behavior and Activities
On average, how often do you do each of the following with any of these family members, not counting any who live with you?	Meet up (include both arranged and chance meetings)	Social Behavior and Activities
	Speak on the phone	Social Behavior and Activities
	Write or email	Social Behavior and Activities
On average, how often do you do each of the following with any of your friends, not counting any who live with you?	Meet up (include both arranged and chance meetings)	Social Behavior and Activities
	Speak on the phone	Social Behavior and Activities
	Write or email	Social Behavior and Activities
	Yesterday, did you work or volunteer?	Social Behavior and Activities
	Yesterday, did you socialize with friends, neighbors, or family (not counting your spouse or partner)?	Social Behavior and Activities
	Whether health limits work	Social Behavior and Activities
	Considers self retired	Social Behavior and Activities
	Retirement satisfaction	Social Behavior and Activities
	Currently working for pay	Social Behavior and Activities
	Works second job	Social Behavior and Activities
We would now like to ask you some questions about your PARTNER OR SPOUSE.	How much do they really understand the way you feel about things?	Fulfillment of Basic Social Needs
	How much can you rely on them if you have a serious problem?	Social Resources
	How much can you open up to them if you need to talk about your worries?	Fulfillment of Basic Social Needs
	How often do they make too many demands on you?	Fulfillment of Basic Social Needs
	How much do they criticize you?	Fulfillment of Basic Social Needs
	How much do they let you down when you are counting on them?	Fulfillment of Basic Social Needs

STEM	QUESTION	DOMAIN
	How much do they get on your nerves?	Fulfillment of Basic Social Needs
	How close is your relationship with your partner or spouse?	Fulfillment of Basic Social Needs
Thinking about all of YOUR LIVING CHILDREN, please check the answer which best shows how you feel about each statement.	How much do they really understand the way you feel about things?	Fulfillment of Basic Social Needs
	How much can you rely on them if you have a serious problem?	Fulfillment of Basic Social Needs
	How much can you open up to them if you need to talk about your worries?	Fulfillment of Basic Social Needs
	How often do they make too many demands on you?	Fulfillment of Basic Social Needs
	How much do they criticize you?	Fulfillment of Basic Social Needs
	How much do they let you down when you are counting on them?	Fulfillment of Basic Social Needs
	How much do they get on your nerves?	Fulfillment of Basic Social Needs
We would now like to ask you some questions about these family members.	How much do they really understand the way you feel about things?	Fulfillment of Basic Social Needs
	How much can you rely on them if you have a serious problem?	Fulfillment of Basic Social Needs
	How much can you open up to them if you need to talk about your worries?	Fulfillment of Basic Social Needs
	How often do they make too many demands on you?	Fulfillment of Basic Social Needs
	How much do they criticize you?	Fulfillment of Basic Social Needs
	How much do they let you down when you are counting on them?	Fulfillment of Basic Social Needs
	How much do they get on your nerves?	Fulfillment of Basic Social Needs
We would now like to ask you some questions about YOUR FRIENDS.	How much do they really understand the way you feel about things?	Fulfillment of Basic Social Needs
	How much can you rely on them if you have a serious problem?	Fulfillment of Basic Social Needs
	How much can you open up to them if you need to talk about your worries?	Fulfillment of Basic Social Needs
	How often do they make too many demands on you?	Fulfillment of Basic Social Needs
	How much do they criticize you?	Fulfillment of Basic Social Needs
	How much do they let you down when you are counting on them?	Fulfillment of Basic Social Needs
	How much do they get on your nerves?	Fulfillment of Basic Social Needs
The next questions are about how you feel about different aspects of your life.	You lack companionship?	Fulfillment of Basic Social Needs
	Left out?	Fulfillment of Basic Social Needs
	Isolated from others?	Fulfillment of Basic Social Needs
	That you are "in tune" with the people around you?	Fulfillment of Basic Social Needs
	Alone?	Fulfillment of Basic Social Needs
	That there are people you can talk to?	Social Resources

STEM	QUESTION	DOMAIN
	That there are people you can turn to?	Fulfillment of Basic Social Needs
	That there are people who really understand you?	Fulfillment of Basic Social Needs
	That there are people you feel close to?	Fulfillment of Basic Social Needs
	Part of a group of friends?	Fulfillment of Basic Social Needs
In your day-to-day life, HOW OFTEN HAVE ANY OF THE FOLLOWING THINGS HAPPENED TO YOU?	You are treated with less courtesy or respect than other people.	Fulfillment of Basic Social Needs
	You receive poorer service than other people at restaurants or stores.	Fulfillment of Basic Social Needs
	People act as if they think you are not smart.	Fulfillment of Basic Social Needs
	People act as if they are afraid of you.	Fulfillment of Basic Social Needs
	You are threatened or harassed.	Fulfillment of Basic Social Needs
	You receive poorer service or treatment than other people from doctors or hospitals.	Fulfillment of Basic Social Needs
The following statements are about people's expectations of each other. Please tell us how much you agree or disagree with each statement for you personally.	I have always been satisfied with the balance between what I have given my partner and what I have received in return.	Fulfillment of Basic Social Needs
	I have always received adequate appreciation for providing help in my family.	Fulfillment of Basic Social Needs
	In my current major activity (job, looking after home, voluntary work) I have always been satisfied with the rewards I received for my efforts.	Fulfillment of Basic Social Needs
	Yesterday, did you feel lonely?	Fulfillment of Basic Social Needs

Appendix 2 Missingness

We used single imputation to address missing values for predictors. Categorical variables were imputed with the mode value and continuous variables were imputed with the median value. Median missingness was 2.6% (IQR 2.0, 3.5) and maximum missingness was 12% for a question asking participants where they are on the societal ladder. Below we detail how missing values are imputed for variables selected in the final model

Predictor	Missingness in 2010 cohort (development cohort)	Imputed value if missing
Age	0%	75 years
Gender	0%	Woman
Local area is full of rubbish and litter*	3.6%	Area is kept very clean
Low self-reported control over financial situation**	2.1%	4 (0 to 10 scale where 1=no control at all, 10=very much control)
Has children and meets with children less than once a year	3.9%	Meets weekly
Activities with grandchildren, niece/nephews or neighborhood children^^	2.7%	5 (At least once a month)
Not working for pay at the present time	0.1%	No working for pay
Does no volunteering or charity work	3.0%	Does any volunteering or charity work
Feeling isolated from others	3.0%	Hardly ever or never
You are treated with less courtesy or respect than other people (a few times a year or more often)	2.3%	Less than a few times per year

Legend

* defined as (≥ 4 on 1 to 7 scale where 1=area is kept very clean, 7=area is always full of rubbish and litter)

**defined as (≤ 3 on 0 to 10 scale where 1=no control at all, 10=very much control)

^^grandchildren, neighborhood children, nieces/nephews, on a 1 to 7 scale (1=daily, 7=never/not relevant), continuous

Appendix 3: TRIPOD CHECKLIST

Section/Topic		Checklist Item		Page
Title and abstract				
Title	1	D;V	Identify the study as developing and/or validating a multivariable prediction model, the target population, and the outcome to be predicted.	1
Abstract	2	D;V	Provide a summary of objectives, study design, setting, participants, sample size, predictors, outcome, statistical analysis, results, and conclusions.	2,3
Introduction				
Background and objectives	3a	D;V	Explain the medical context (including whether diagnostic or prognostic) and rationale for developing or validating the multivariable prediction model, including references to existing models.	3
	3b	D;V	Specify the objectives, including whether the study describes the development or validation of the model or both.	4
Methods				
Source of data	4a	D;V	Describe the study design or source of data (e.g., randomized trial, cohort, or registry data), separately for the development and validation data sets, if applicable.	5
	4b	D;V	Specify the key study dates, including start of accrual; end of accrual; and, if applicable, end of follow-up.	5
Participants	5a	D;V	Specify key elements of the study setting (e.g., primary care, secondary care, general population) including number and location of centres.	5
	5b	D;V	Describe eligibility criteria for participants.	5
	5c	D;V	Give details of treatments received, if relevant.	n/a
Outcome	6a	D;V	Clearly define the outcome that is predicted by the prediction model, including how and when assessed.	6
	6b	D;V	Report any actions to blind assessment of the outcome to be predicted.	n/a
Predictors	7a	D;V	Clearly define all predictors used in developing or validating the multivariable prediction model, including how and when they were measured.	6, 7
	7b	D;V	Report any actions to blind assessment of predictors for the outcome and other predictors.	n/a
Sample size	8	D;V	Explain how the study size was arrived at.	Appendix 4
Missing data	9	D;V	Describe how missing data were handled (e.g., complete-case analysis, single imputation, multiple imputation) with details of any imputation method.	6
Statistical analysis methods	10a	D	Describe how predictors were handled in the analyses.	5, 6
	10b	D	Specify type of model, all model-building procedures (including any predictor selection), and method for internal validation.	6
	10c	V	For validation, describe how the predictions were calculated.	6
	10d	D;V	Specify all measures used to assess model performance and, if relevant, to compare multiple models.	6
	10e	V	Describe any model updating (e.g., recalibration) arising from the validation, if done.	n/a
Risk groups	11	D;V	Provide details on how risk groups were created, if done.	6
Development vs. validation	12	V	For validation, identify any differences from the development data in setting, eligibility criteria, outcome, and predictors.	5, Table 1, Table 2
Results				
Participants	13a	D;V	Describe the flow of participants through the study, including the number of participants with and without the outcome and, if applicable, a summary of the follow-up time. A diagram may be helpful.	Appendix 4
	13b	D;V	Describe the characteristics of the participants (basic demographics, clinical features, available predictors), including the number of participants with missing data for predictors and outcome.	Table 1 & 2; Appendix 4
	13c	V	For validation, show a comparison with the development data of the distribution of important variables (demographics, predictors and outcome).	Table 1, 2
Model development	14a	D	Specify the number of participants and outcome events in each analysis.	Page 7
	14b	D	If done, report the unadjusted association between each candidate predictor and outcome.	n/a
Model specification	15a	D	Present the full prediction model to allow predictions for individuals (i.e., all regression coefficients, and model intercept or baseline survival at a given time point).	Table 3
	15b	D	Explain how to use the prediction model.	Figure 2
Model performance	16	D;V	Report performance measures (with CIs) for the prediction model.	8,9
Model-updating	17	V	If done, report the results from any model updating (i.e., model specification, model performance).	n/a
Discussion				
Limitations	18	D;V	Discuss any limitations of the study (such as nonrepresentative sample, few events per predictor, missing data).	13
Interpretation	19a	V	For validation, discuss the results with reference to performance in the development data, and any other validation data.	n/a
	19b	D;V	Give an overall interpretation of the results, considering objectives, limitations, results from similar studies, and other relevant evidence.	11
Implications	20	D;V	Discuss the potential clinical use of the model and implications for future research.	11,12
Other information				

Supplementary information	21	D;V	Provide information about the availability of supplementary resources, such as study protocol, Web calculator, and data sets.	Acknowledgement
Funding	22	D;V	Give the source of funding and the role of the funders for the present study.	14

Appendix 4: Cohort flow table

	Development cohort (Baseline interview 2010-2011)	Validation cohort (Baseline interview 2012-2013)
Eligible for Psychosocial and Lifestyle Questionnaire and age ≥ 65 yrs	5384	4997
Excluded: did not complete Psychosocial and Lifestyle Questionnaire	1082	1049
Baseline cohort, cohort size for death analysis (A)	4302	3948
Excluded: ADL dependent at baseline (B1)		383
Excluded: Missing ADL data in either or both follow up interviews or exit interview if deceased (B2)		279
Cohort size for ADL analysis (A – B1 – B2)		3286
Excluded: Living in NH at baseline (C1)		85
Excluded: Missing NH status in either or both follow up interviews or exit interview if deceased (C2)		394
Cohort size for NH analysis (A – C1 – C2)		3469
Excluded: Missing hospital stay data in either follow up interview or exit interview if deceased (D)		542
Cohort size for hospitalization analysis (A – D)		3406
Excluded: Does not have Medicare claims linkage (E1)		290
Excluded: Does not have 12 months of part A, B and FFS before baseline interview (E2)		1722
Cohort size for Charlson score (A – E1 – E2)		2226

Legend

ADL – activity of daily living

NH – nursing home

Exit interviews are interviews completed with next of kin if the study participant dies before the next scheduled interview

Appendix 5: Model interaction with Race

Race was one of the 183 candidate predictors but was not selected through LASSO the variable selection procedure detailed in the Methods section. Race requires special attention because of the substantial effect of racism on health. We conducted a sensitivity analysis where added race by predictor interactions to see if doing so improved the model Bayesian Information Criteria (BIC). The results below show that model BIC did not improve in any of the permutations where race was added. Based on these results, we did not add race to the model.

Model	BIC (lower is better)
Model as developed in the main analysis (i.e., base model)	3922
Base model + Race x Activities with grandchildren, niece/nephews or neighborhood children [^]	3938
Base model + Race x Feeling isolated from others (some of the time vs. hardly ever or never)	3943
Base model + Race x Does no volunteering or charity work	3945
Base model + Race x Local area is full of rubbish and litter*	3945
Base model + Race x Low self-reported control over financial situation**	3945
Base model + Race x Treated with less courtesy or respect than other people (a few times a year or more often)	3941
Base model + Race x Has and meets with children less than once a year	3946
Base model + Race x Not working for pay at the present time	3938

Legend

each interaction model includes race as a main effect as well

* defined as (≥ 4 on 1 to 7 scale where 1=area is kept very clean, 7=area is always full of rubbish and litter)

**defined as (≤ 3 on 0 to 10 scale where 1=no control at all, 10=very much control)

[^]grandchildren, neighborhood children, nieces/nephews, on a 1 to 7 scale (1=daily, 7=never/not relevant), continuous

Appendix 6: Improvement in Discrimination

In the main analysis we present the improvement in risk stratification (Figure 3 and 4). We also examined whether the Social Frailty Index improved the discrimination of the Charlson Index and the Lee Index. In both cases we find a small, statistically significant improvement in discrimination when the Social Frailty Index is added.

Model	AUC (95% CI)
Social Frailty Index	0.73 (0.72 - 0.75)
Lee Score	0.79 (0.77 - 0.80)
Social Frailty Index + Lee Score	0.80 (0.78 - 0.81)*
Charlson Score	0.77 (0.75 - 0.80)
Social Frailty Index + Charlson Score	0.78 (0.76 - 0.80)**

* the AUC is statistically greater for Social Frailty Index + Lee Score when compared to Lee score alone (p<0.001)

** the AUC is statistically greater for Social Frailty Index + Charlson Score when compared to Charlson Score alone (p=0.006)

Appendix 7: Tabular results of Figure 3 and Figure 4

A. Charlson score by Social Frailty Index tertiles

Tertile of Charlson Score	Tertile of Social Frailty Index	N	Deaths	Death rate	Lower limit	Upper limit	Proportion of cohort
1	1	324	27	0.08	0.05	0.11	0.15
1	2	243	30	0.12	0.08	0.16	0.11
1	3	175	47	0.27	0.20	0.33	0.08
2	1	252	36	0.14	0.10	0.19	0.11
2	2	257	46	0.18	0.13	0.23	0.12
2	3	233	64	0.27	0.22	0.33	0.10
3	1	169	50	0.30	0.23	0.36	0.08
3	2	244	99	0.41	0.34	0.47	0.11
3	3	329	153	0.47	0.41	0.52	0.15

Tertile of Charlson Score	Tertile of Social Frailty Index (ref)	Tertile of Social Frailty Index (Comparison)	P value	Annotation in Figure 3
1	1	2	0.152	NS
1	2	3	<0.001	***
1	1	3	<0.001	***
2	1	2	0.323	NS
2	2	3	0.015	*
2	1	3	<0.001	***
3	1	2	0.029	*
3	2	3	0.184	NS
3	1	3	<0.001	***

B. Lee score by Social Frailty Index tertiles

Tertile of Lee Score	Tertile of Social Frailty Index	N	Deaths	Death rate	Lower limit	Upper limit	Proportion of cohort
1	1	819	38	0.05	0.03	0.06	0.21
1	2	408	28	0.07	0.04	0.09	0.10
1	3	89	8	0.09	0.03	0.15	0.02
2	1	377	43	0.11	0.08	0.15	0.10
2	2	552	93	0.17	0.14	0.20	0.14
2	3	387	86	0.22	0.18	0.26	0.10
3	1	120	35	0.29	0.21	0.37	0.03
3	2	819	38	0.05	0.03	0.06	0.21
3	3	408	28	0.07	0.04	0.09	0.10

Tertile of Lee Score	Tertile of Social Frailty Index (ref)	Tertile of Social Frailty Index (Comparison)	P value	Annotation in Figure 4
1	1	2	0.136	NS
1	2	3	0.635	NS
1	1	3	0.128	NS
2	1	2	0.027	*
2	2	3	0.048	*
2	1	3	<0.001	***
3	1	2	0.389	NS
3	2	3	<0.001	***
3	1	3	<0.001	***