# Effects of The Environment of Origin On The Health Status of Adults In Togo

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**Abstract** - This article aims to estimate the effect of the environment of origin on the health status of Togolese adults. The methodology consisted in calculating the marginal effect of variables describing childhood living conditions and the characteristics of ascendants on the probability of an average Togolese to declare a good perceived health status. Applied to 600 individuals the Harmonized Survey on Household Living Conditions (EHCVM, 2018), the results show an intergenerational transmission of Health, an improvement of the health status of adult Togolese with the improvement of the socioeconomic status of parents in their childhood. On the other hand, we note a deterioration of this health status with the alcoholism of fathers and obesity of mothers in their childhood.

**Keywords** - home environment, perceived health status, intergenerational transmission.

## I. INTRODUCTION

Togo is a West African country between the 6th and 11th degrees of north latitude and the meridians 0° and 1°40 of East longitude. Covering an area of 56,600 km<sup>2</sup>, it is similar to a corridor stretching 650 km long and has a coastline of about 50 km. Its greatest width is 150 km. This configuration explains the spatial, climatic, economic, human, and biological diversity. It is bordered by Ghana, Benin's east, the south by the Atlantic Ocean, and the north by Burkina Faso.

The fourth General Population and Housing Census (RGPH, 2010) put Togo's resident population at 6 191 155 with a low density of 109 inhabitants per km<sup>2</sup>. The age structure shows a preponderance of people under 15 years of age (42.0%) and those between 15 and 64 years of age (54.0%) to the detriment of people aged 65 years and over (4%). According to the National Development Plan (NDP, 2018), the Togolese economy is mainly based on agriculture, employing more than 70% of the active population.

The first decade of the 21st century saw several studies that established evidence of the influence of socio-economic status (SES) in childhood on the health status of individuals in adulthood (Poulton et al., 2002; Galobardes et al., 2004 and 2008; Cohen et al., 2004; Pollitt et al., 2005; Lawlor et al., 2006; Kitlesson et al., 2006; Cohen, 2010). More recently, other work has explained adult health status not only by socio-economic status in childhood but also by the intergenerational transmission of Health (Trannoy et al., 2010; Bricard 2013; Jusot et al., 2014; Li Donni et al., 2014; Fajardo - Gonzalez, 2016; Rivera, 2017; Willson and Shuey, 2018).

However, all these studies were conducted in American and European countries. This chapter, which concerns Togo (an African country), aims to estimate the effect of the environment of origin on the health status of Togolese adults. To do this, a literature review on the relationship between environment of origin and health status is presented in turn (first section), the methodology (second section), and the results of the modeling (third section).

## **II. REVIEW OF LITERATURE**

The environment of origin is understood as the living conditions in childhood and the characteristics of the ascendants (Jusot et al., 2013). The role of intergenerational inheritance, either in the form of transmission of health status or risk behaviors or in the form of transmission of socio-economic status, on health status in adulthood is the focus of recent studies on inequalities in health status. The influence of intergenerational inheritance on adult health is assessed through exposures during pregnancy and infancy, socioeconomic status, and parental health status in childhood. This section outlines the evidence for these relationships.

## A. Influence of exposures during pregnancy and infancy on adult health status

The influence of exposures during pregnancy and early childhood on adult health status is studied in the model known as the "*latency model*. According to the Commission on Social Determinants of Health (CSDH, 2007), this model considers that exposure during a specific period has long-lasting or lifelong effects on the structure or function of organs, tissues, and body systems that are not dramatically altered by subsequent experiences. This view underlies the hypotheses about the fetal origins of adult diseases.

According to Barker et al. (1989), low birth weight babies are more likely to develop cardiovascular disease and type 2 diabetes in adulthood. This is particularly true for those living in disadvantaged conditions. Painter, Roseboom, and Bleker (2005) showed that people whose mothers were exposed to the Dutch winter famine at the time of conception and during the first trimester of pregnancy had an increased risk of obesity and cardiovascular disease (CVD) in adulthood. Reviewing the results of 10 studies that assessed the association between birth weight and adult all-cause, CVD, or cancer mortality, Risnes et al. (2011) found an inverse but moderate association of birth weight with adult all-cause mortality and a stronger inverse association with cardiovascular mortality.

## B. Influence of childhood socio-economic status on adult health status

In many countries, children of parents of low socioeconomic status (SES) are less likely than those of more affluent parents to receive necessary and preventive medical care due to their parent's inability to pay for these services. Apart from differences in health care, Cohen (2010) believes that lower SES in childhood is detrimental to adult health due to the decrease in favorable environmental exposures and the increase in unfavorable environmental exposures associated with declining SES. According to this author, environmental exposures are often physical exposures associated with children's homes, schools, and neighborhoods.

To show evidence of this relationship, Poulton et al. (2002) showed that lower SES in childhood was associated with poorer dental Health, including more plaque and gingival bleeding, and a higher proportion of individuals with periodontal disease decayed tooth surfaces. In a review of 49 studies, Pollitt et al. (2005) concluded that adverse socio-economic conditions in childhood put individuals at modest risk of cardiovascular disease and disease-related mortality in adulthood, independent of adult SES. For Lawlor et al. (2006), individuals from manual social classes in childhood were more likely to die from all causes than individuals from nonmanual social classes and the specific causes of smoking-related cancers, stomach cancer, and respiratory disease cardiovascular disease, and diabetes. In a review of 40 studies examining the relationship between childhood SES and adult mortality, Galobardes et al. (2004 and 2008) concluded that people with lower SES in childhood were at high risk of premature mortality, regardless of their socioeconomic status in adulthood. The increased risk associated with childhood socio-economic disadvantage applies to both overall and cause-specific mortality.

## C. Influence of parental Health and social background in childhood on health status in adulthood

Research generally studies health inequality as an intraindividual process rooted in early life conditions and operating over the course of an individual's life, only implicitly addressing the intergenerational transmission of health inequality between generations. At the same time, the literature on intergenerational transmission processes has largely focused on class mobility, often examining educational attainment, occupational categorization, intergenerational income, and wealth persistence while largely neglecting the continuity of Health across generations. More recent studies have incorporated this aspect into the role of intergenerational health transmission.

In this context, Devaux et al. (2010) show that beyond its association with the individual's current social situation health status in adulthood is directly influenced by the mother's socio-economic status- the relative longevity of the father and, in particular, his vital status influences Health in adulthood on the other hand. Comparing the perceived health status of Spain and the Netherlands, Trannoy (2011) underlines for both countries that -the Health of the ascendant influences that of the descendant the social status of the ascendant influences the Health of the descendant. Bricard (2013) shows an influence -of the care habits of parents in childhood of individuals on the care habits of individuals in adulthood -of the care habits in childhood on the use of the doctor in adulthood for his children. For Li Donni et al. (2014), the health status in adulthood of British people depends on the socioeconomic status of the father, the vital status of the father, the ethnicity, and the country of birth. The results of Fajardo - Gonzalez (2016) highlight that the health status in adulthood of Colombians depends on parents' education level, the ownership of household socio-economic assets at 10 years, the vital parental status, and the region of birth.

In line with the evidence, Jusot et al. (2017) show that adult health of Indonesians is directly affected by parents' vital status -the effect of parents' education on offspring's Health is mainly indirect, passing through offspring's socio-economic, marital, and migration status, -the status of father's education level nevertheless has a nonnegligible direct effect on adult health. Other studies highlight the influence of the mother's and father's level of education, the manifestation of a chronic disease of the mother and father, the vital status of the mother and father, and the place of birth in childhood on the Health of individuals in adulthood (Rivera, 2017 and Fajardo -Gonzalez, 2016).

## **III. METHODOLOGY and DATA SOURCE**

## A. Source of data

Information describing childhood living conditions and ascendant characteristics in relation to health status indicators of adult Togolese is generally not collected in Togo. In the context of this study, data complementary to the Harmonized Survey on Household Living Conditions (EHCVM, 2018) were collected in Greater Lomé (which includes the two prefectures of the capital of Togo). For this purpose, a module of questions related to the perceived Health of the Togolese and their living conditions in childhood was introduced in the questionnaire following the example of Jusot et al. (2013) in France. The sampling frame <sup>1</sup>and the maps of the surveyed areas are those of the EHCVM. The data was collected through the digital platform for research in the humanitarian sector,

<sup>&</sup>lt;sup>1</sup> They were acquired from INSEED which is the only legal structure in Togo for this kind of data <sup>2</sup>https://kf.kobotoolbox.org/#/forms

"*KoBoCollect*", the access link to which <sup>2</sup>is made available for any verification of the reliability of the data.

#### **B.** Estimation techniques

This part aims to estimate the probability of a respondent declaring a good health status according to the circumstances in which they lived their childhood. To do this, the explained variable is dichotomous, and therefore it must be estimated through a dichotomous model<sup>2</sup>.

The sample comprises N individuals, i = 1, N. For each individual, we observe whether the event "*declares a good health status*" is realized, and we note *yi* the coded variable associated with this event.

We pose, 
$$\forall i \in [1, N]$$
:  

$$y_i = \begin{cases} 1 \text{ if individual } i \text{ has declared a good health status} \\ 0 \text{ if not} \end{cases}$$
(1)

We note here the choice of coding (0, 1) which is traditionally used for dichotomous models. Indeed, it allows to define the probability of occurrence of the event as the expectation of the coded variable yi, since :

$$E(y_i) = Prob(y_i = 1) \times 1 + Prob(y_i = 0) \times 0 = Prob(y_i = 1) = p_i$$
(2)

The aim here is to explain the declaration of good health according to the characteristics observed for the individuals in the sample. These are:

- control variables including age and gender;
- the health status of the parents;
- relative longevity of parents ;
- Risky behaviors of parents (smoking, alcoholism, obesity);
- the socio-economic characteristics of the parents (education, professional and financial situation);
- and socio-cultural background (ethnicity).

In general, as for the linear model, we write for the explanatory variables  $Xi = (1, X_{i1}, ..., X_{iK})$  and for the parameters  $\theta = (\theta_0, \theta_1, ..., \theta_K)'$ , so that:

$$\theta \theta + \theta 1 X_{i1} + \dots + \theta_K X_{iK} = X \theta \tag{3}$$

The direct use of a linear model is bound to fail: writing Yi =  $_{Xi\theta}$  +  $\varepsilon$  imposes  $_{Xi\theta}$  +  $\varepsilon$  to take only the values 0 and 1. We seek to explain the values of Y thanks to X, i.e. to estimate the probability that Yi = 1 knowing  $_{Xi}$ . We then note that:

$$Pr (Yi = 1 | Xi) = Pr (X_i\theta + \mathcal{E}_i \ge 0 | Xi) = Pr (X_i\theta \ge -\mathcal{E}_i | Xi)$$
  
=  $F \cdot \varepsilon (X_i\theta)$  (4)

We here choose the reduced centered normal distribution function to estimate the parameters  $\theta$ . Therefore the probit model is suitable. F is thus the distribution function of a centered reduced Gaussian, usually denoted  $\Phi$ :

$$F(Xi\theta) = \Phi(X_i\theta) = \int_{-\infty}^{Xi\theta} \frac{e^{-\frac{t^2}{2}}}{\sqrt{2\pi}} dt$$
 (5)

The corresponding density, usually denoted  $\varphi$ , is :

$$f(Xi\theta) = \varphi (X_i\theta) = \frac{e^{-\frac{(Xi\theta)^2}{2}}}{\sqrt{2\pi}}$$
(6)

Once the model has been estimated, we obtain the parameters ( $\theta$ ) that must be interpreted. The essential aspect is the marginal effect of the j-th variable Xij on the probability of the event Y = 1 for individual i. This effect is written for a continuous variable Xij (for a qualitative explanatory variable, we must consider a rate of increase):

$$\frac{\partial F(Xi\theta)}{\partial Xij} = f(Xi\theta)\theta j:$$
(7)

The variable explained in this study is the perceived health status of Togolese adults, with five modalities (very good, good, average, bad, and very bad) following the perceived health status of the Eurostat mini-module. This multinomial indicator was then dichotomized by grouping the first two modalities into good health status and the last three into poor health status, as most of the authors cited in the literature review. The perceived health status responses were controlled for by the responses to two other questions, namely: "Do you have a chronic or long-lasting illness or health problem? And "Have you been limited for at least six months, because of a health problem, in the activities that people usually do? The analysis sample consists of 600 individuals. The results obtained show that 71% of the respondents declared a good state of health, while 29% of them gave the opposite answer.

#### **IV. Presentation of results**

#### A. Interpretation of results

Table 1: Marginal effects of home environment influence on the probability of reporting good health status

Variables explicatives	Ν	dy/dx	Std. Err.	t	P>t
Age groups					
16 to 25 years old	121	Réf	Réf	Réf	Réf
26 to 35 years old	196	-		-	
		0,086		1,66	0,09
		*	0,052	0	7
36 to 45 years old	158			-	
		-		1,44	0,15
		0,074	0,052	0	2
46 to 55 years old	88			-	
		-		1,46	0,14
		0,088	0,060	0	6

<sup>&</sup>lt;sup>2</sup> A dichotomous model is a statistical model in which the explained variable can only take two forms

Variables explicatives	N	dy/dx	Std. Err.	t	P>t	Variables explicatives	N	dy/dx	Std. Err.	t	P>t
Over 55 years old	37	-		-		Don't know	44	0,217		2,69	0,00
		0,322 ***	0.002	3,46 0	0,00	Parents' financial	17	***	0,080	0	7
Sex			0,093	U	1	situation					
Male	337	Réf	Réf	Réf	Réf	At ease	57	Réf	Réf	Réf	Réf
Woman	263	-	Kei	-	Kel	Rather embarrassed		-		-	
woman	205	0,142		4,14	0,00		399	0,087	<b></b>	1,85	0,06
		***	0,034	0	0	Very embarrassed		*	0,047	0	5
Father's perceived health status						very embarrassed	128	-		1,27	0,20
Very good	55	Réf	Réf	Réf	Réf			0,068	0,054	0	3
Good		Rei	Rei	1,25	0,21	Don't know	16			- 0,84	0,39
0000	369	0,081	0,065	0	1		10	0,093	0,111	0,84	0,39 9
Medium	83	0,190	0.074	2,56	0,01	An episode of		- ,	- 1		-
Bad		**	0,074	0	1	precariousness in					
Dad	24	-		1,58	0,11	<b>childhood</b> Non-precarious					
		0,184	0,116	0	4	childhood	147	Réf	Réf	Réf	Réf
Very Poor	52	0,183 **	0.001	2,02	0,04 4	Precarious childhood		-		-	
Don't know			0,091	0	4		453	0,197 ***	0,045	4,38 0	0,00 0
2 011 0 1110 11	17	-		0,56	0,57	Father's level of			0,045	0	0
		0,090	0,161	0	6	education					
Mother's perceived health status						Not in school	79	Réf	Réf	Réf	Réf
Very good	42	Réf	Réf	Réf	Réf	Kindergarten,	55	0,190		1,94	0,05
Good	12	iter	Iter	-	Rei	Primary Secondary_1	00	* 0,316	0,098	0 3,37	3 0,00
	346	-		0,67	0,50	Secondary_1	90	***	0,094	0	0,00
Mallan		0,040	0,060	0	5	Secondary_2	138	0,340	,	3,39	0,00
Medium	102	- 0,166		- 2,29	0,02	C	150	***	0,100	0	1
	102	**	0,072	0	2	Superior	98	0,428 ***	0,097	4,42 0	0,00 0
Bad				-		Don't know	140	0,361	0,077	3,92	0,00
	19	-	0,106	0,60	0,54 7		140	***	0,092	0	0
Very Poor		- 0,004	0,100	-	1	Father's occupation					
	76	0,191		2,03	0,04	Public sector	162	Réf	Réf	Réf	Réf
Dan 14 Interne		**	0,094	0	2	employee Private sector				-	
Don't know	15	0,027	0,118	0,23 0	0,82 1	employee	79	-		0,22	0,82
<b>Relative longevity of</b>		0,027	0,110	0		T 1 1 C 1		0,013	0,058	0	7
father						Liberal, informal	179	_		- 0,44	0,65
Living Father	331	Réf	Réf	Réf	Réf		117	0,023	0,052	0	9
Father died prematurely	57	-0,150		- 1,95	0,05	Housekeeper		-		-	
prematurery	57	0,130 *	0,077	1,95	0,05		9	0,269 **	0,135	1,99 0	0,04 7
Father died at a			- ,	-		Farmer, peasant	100		0,155	1,43	0,15
relatively high age	147	-	0.047	1,49	0,13		109	0,086	0,060	0	4
		0,070	0,047	0	8	Retired	15	0.016	0.106	0,15	0,87
	65	-		0,55	0,58	Inactive,		0,016	0,106	0 0,19	9 0,84
Don't know		0,033	0,060	0	3	Unemployed	6	0,031	0,161	0,19	8
Father's alcoholism						Don't know	41			0,44	0,66
Alcoholic father	91	Réf	Réf	Réf	Réf	Mother's accuration		0,037	0,085	0	4
Non-alcoholic father	465	0,132	0.050	2,66	0,00	Mother's occupation					
		***	0,050	0	8						

Variables		N	dy/dx	Std.	t	P>t			
explicatives			uy/ux	Err.	l	1>1			
Public	sector	27	Réf	Réf	Réf	Réf			
employee									
Private	sector	14	0,266 **	0.125	2,10	0,03			
employee	1			0,127	0	6			
Liberal, inform	nal	194	0,235 **	0.007	2,42	0,01			
Housekaapar			0,221	0,097	0 2,29	6 0,02			
Housekeeper		274	0,221 **	0,097	2,29	2			
Farmer, peasar	nt			0,097	1,12	0,26			
r armer, peasa	11	56	0,137	0,121	0	2			
Inactive,			0,374	0,121	2,96	0,00			
Unemployed		12	***	0,126	0	3			
Don't know				•,•	-				
		23	-		1,15	0,24			
			0,167	0,145	0	9			
	aternal								
obesity									
Obese mother		95	Réf	Réf	Réf	Réf			
Non-obese mo	ther	505	0,263		3,36	0,00			
		505	***	0,078	0	1			
Socio-cultural	l								
environment									
Adja-éwé		296	Réf	Réf	Réf	Réf			
Akposso-Akéb	ou	20			0,68	0,49			
1		29	0,051	0,075	0	9			
Ana-Ifè		25	0,125		2,20	0,02			
		35	**	0,057	0	8			
Kabyè-tèm					-				
		118	-		0,07	0,94			
			0,004	0,049	0	3			
Para-Gourma-	~ .			-	0.40				
		51	-	0.065	0,84	0,40			
Foreign			0,055	0,065	0	4			
Foreign		50			0,38	0,70			
		50	0.022	0,058	Ó	. 4			
Refused			**0,1	0,058	0 2,26	4 0,02			
Iterubeu		21	38	0,061	0	4			
	Ou	ality of f		v					
	Tect	-	•		20				
	rest	ing tor	good pr		15				
a			<b>C</b> 1	Std.		P			
Good Health			Coef.	Err.	t	P>t			
hat			1,005 ***	0.004	10,6	0,00			
_hat			***	0,094	70	0			
					- 0,11	0,91			
_hatsq			0,007	0,065	0,11	5			
_nausq			0,007	0,005	0,04	0,96			
cons			0,004	0,098	0,04	0,90 7			
Predicted probability of the average person									
reporting good Health									
	- `	1	Margi	Std,					
			n	Err,	t	P>t			
				- ,	25,7	0,00			
_cons			0,714	0,028	00	1			
Source: Author based on additional data from EHCVM (2018).									

Source: Author based on additional data from EHCVM (2018).

Two tests were performed after the estimations to confirm the goodness of fit: the good prediction test (Link test) and the predicted probability of the average individual to report a good health status. Concerning the first, \_hat is significant at 1% while \_hatsq is not significant. This confirms, on the one hand, that we have chosen significant predictors and, on the other hand, that we have not committed a specification error (since the \_hatsq link test is not significant).

The predicted probability of the average individual reporting a good health status (71.4%) is very close to the average individual's probability of reporting a good health status (71%), which shows that the model is good enough to make a good prediction.

## a) Effects of age and gender variables

In the model presented in the previous section, age and gender are control variables. The results show that other things being equal, the probability of having a good perceived health status is respectively reduced by 8.6 and 32.2 percentage points for people belonging to the 26 to 35 and over 55 age groups, rather than for those belonging to the 16 to 25 age group. This confirms the verification of the empirical relationship that younger people are healthier than older people comparatively. With respect to gender, the probability of having good perceived Health is reduced by 14.2 percentage points for women compared to men. This can be explained by the often precarious socio-economic situation of African women in general and Togolese women in particular, which negatively influences their health status.

## b) Effects of parental Health and longevity

Considering the Health of the parents during the respondents' childhood (i.e., when they were 12 years old), the results show that, all other things being equal, the probability of having a well-perceived health status increases by 19 percentage points for respondents whose fathers had an average health status rather than a very good health status. On the other hand, this probability is reduced by 18.3 percentage points among respondents whose fathers had a very poor health status rather than among fathers with very good health status. On the mother's side, all other things being equal, the probability of having a good perceived health status is respectively reduced by 16.6 and 19.1 percentage points among respondents whose mothers had an average health status and a very poor health status, rather than among respondents whose mothers had a very good health status.

These results show an improvement in the health status of adult Togolese with a good health status of their mothers on the one hand and more or less poor health of their fathers in childhood. This paradox can be explained by the fact that in Togo, mothers are the first people to intervene in case of illness of a member of the household, and it is only in cases where fathers are reduced in their daily activities due to illness that their experiences help to improve the future health of their children. With regard to the relative longevity of parents, the results show that other things being equal, the probability of having a good perceived health status is reduced by 15 percentage points among respondents whose fathers had died prematurely rather than among respondents whose fathers were still alive at the time of data collection. The results are not significant in relation to the longevity of mothers. The relative longevity of their fathers can therefore explain the differences in the health status of Togolese adults.

## c) Effects of parental risk-taking behavior

Of the parents' risk behaviors, only the fathers' alcoholism and the mothers' obesity are significant in the model. The results show that all other things are equal. The probability of having a good perceived health status increases by 13.2 percentage points among respondents whose fathers did not have an alcohol problem in their childhood, rather than among respondents whose fathers were alcoholics. With regard to maternal obesity, all other things being equal, the probability of having a good perceived health status increases by 26.3 percentage points among respondents whose mothers were not obese during their childhoods rather than among respondents whose mothers were obese. The differences in the health status of Togolese adults can therefore be explained by the alcoholism of fathers and the obesity of mothers.

## d) Effects of precariousness in childhood

The results show that all other things are equal. 19.7 percentage points reduce the probability of having a good perceived health status among respondents who experienced a precarious childhood than among respondents who did not. The differences in the health status of Togolese adults can therefore be explained by precariousness in childhood.

## e) Effects of parental socio-economic status

The socio-economic variables considered were the parent's financial situation, level of education, and occupational category. The results show that all other things are equal. 8.7 percentage points reduce the probability of having a good perceived health status among respondents whose parents were rather financially embarrassed during their childhood compared to respondents whose parents were financially comfortable.

With regard to the fathers' level of education, the results show that all other things being equal, the probability of having a well-perceived health status increases by 19, 31.6, 34, and 42.8 percentage points respectively among respondents whose fathers had primary, lower secondary, upper secondary and tertiary education in their childhoods, rather than among respondents whose fathers had no education.

The results show that all other things are equal. The probability of having a good perceived health status is reduced by 26.9 percentage points respectively among respondents whose fathers were housekeepers during childhood than among respondents whose fathers were

public sector employees. All other things being equal, the probability of having a well-perceived health status increases by 26.6, 23.5, 22.1, and 37.4 percentage points respectively among respondents whose mothers were employed in the private sector, in the professions, as housewives and inactive during their childhood, rather than among respondents whose mothers were employed in the public sector.

It can be concluded here that their parents' socio-economic status explains the health status of adult Togolese in childhood.

## f) Effects of the socio-cultural environment

The socio-cultural background is represented in the model by the variable "*ethnicity*". The results show that all other things being equal, the probability of having a good perceived health status increases by 12.5 and 13.8 percentage points respectively among respondents from Ana-Ifè who refused to reveal their ethnicity, rather than among respondents from Adja-Ewé. The differences in the health status of Togolese adults can therefore be explained by their socio-cultural background.

## B. Discussion of results and policy implications

The results of this study can be summarized in three vectors of determinants of the environment of origin that influence the health status of Togolese in adulthood. These are the parents' health status, the socio-economic status of the parents, and the parents' lifestyle.

Concerning the first vector, two indicators of parental health status, namely perceived Health and longevity, were tested. On the one hand, the results showed an improvement in the health status of adult Togolese with a good health status of their parents in childhood. This intergenerational transmission of Health joins the empirical evidence of Devaux et al. (2010) and Bricard (2013) on French data, Trannoy (2011) on data from Spain and the Netherlands. On the other hand, the said results highlighted an improvement in the health status of adult Togolese with the vital status of their fathers in childhood. This finding is similar to the studies of Li Donni et al. (2014) on UK data, Fajardo - Gonzalez (2016) with Colombian data, Jusot et al. (2017) on Indonesian data.

From the socio-economic status of parents, this research work showed an improvement in the health status of adult Togolese with the improvement in the financial status of parents, the level of education of parents, fathers employed in the public sector, and mothers working in other occupations outside the public service, in their childhood. These results are similar to those obtained by Devaux et al. (2010), Li Donni et al. (2014), Fajardo - Gonzalez (2016), Jusot et al. (2017), and Rivera (2017) on Colombian data.

The last vector is related to the risk behaviors of parents. At this level, this study found that the improvement in the health status of adult Togolese is related to the nonalcoholic status of fathers and non-obese status of mothers in their childhood. This evidence is similar to that of Jusot et al. (2013) on French data.

We also note that the improvement in the health status of Togolese adults is also explained by their precarious childhood, age, sex, and socio-cultural background. In particular, the probability of an adult Togolese having a good perceived health status is lower among those who had a precarious childhood than among respondents who did not have a precarious childhood, among the elderly than among the young, among women than among men, and among the Adja-Ewe than among other ethnic groups. Similar results are obtained by Jusot et al. (2013).

#### V. Conclusion

At the end of this study, the results indicate that differences in the health status of adult Togolese can be explained by the previous health status of their parents. Furthermore, the relative longevity, alcoholism, obesity, economic status of parents, their professions and levels of education, and the ethnicity of origin affect the Health of their children. Because of the findings, there is a need for a range of different programs to strengthen the financial capacity of parents and other caregivers to provide a stable, responsive and stimulating environment for children's development.

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