

## Awareness in Sexual Health: U=U and prevention

### OC 43 “U=U impossibile sbagliare” awareness campaign: impact assessment among PLWH

#### Authors

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#### ABSTRACT

**Background:** The “undetectable equals untransmittable” (U=U) message should contribute to reduce stigma affecting PWH, who can live without the fear of transmitting HIV once they have reached undetectable HIV-RNA. Nevertheless, still many PWH are unaware of this concept. To spread the U=U message in Italy, an awareness campaign designed by the community ‘U=U-Impossibile sbagliare’ was launched in Sept 2023. This study aims to verify its impact among PWH by measuring the awareness of U=U and its association with self-stigma.

**Methods:** A survey was disseminated within the PWH of the ICONA network before (Jul-Sept2023) and after the launch of the campaign (Sept2023-March2024). It was accessible via web or Icona mobile app and consisted of the validated HIV Stigma Scale (12-items) and 3 questions on U=U (Do you know U=U? Do you think it is reliable? Did it change your life?). The domains of the stigma scale were 4: personalized stigma, disclosure concerns, concerns with public attitude, negative self-image. Scores varied from 3 to 12, with higher scores indicating higher stigma. The survey was anonymous and not designed to compare pre-/post results of same subject. Data on knowledge of U=U pre-and post-campaign were compared by logistic regression; association between U=U knowledge and HIV stigma was analyzed by linear regression. A logistic regression analysis was conducted to identify factors associated with lack of knowledge of U=U.

**Results:** A total of 820 PWH responded to the survey: 362 (44.1%) pre- and 458 post- start of campaign (55.9%). 333 (40.6%) PWH responded “No” and 487 (59.4%) “Yes” to the question on knowledge of U=U with no differences according to the period: 226 (62.4%) pre- vs 168 (56.6%) post-campaign knew about U=U (p=0.13) (Table 1). After adjusting for age, gender at birth, MSM, center, education and nation of birth, the marginal predicted probability of knowing U=U pre-campaign was 61.3% (95%CI 56.4%-66.3%) and 57.7% (52.3%-63.0%) post-campaign (p=0.32).

The HIV stigma domain with the highest score was related to disclosure concerns. There was no evidence for an association between knowledge of U=U and the HIV-stigma scale scores; the “concerns with public attitudes” domain was even higher for those who knew U=U (Table 2). Independent factors associated to lack of U=U knowledge were age > 40, being non-MSM, education below university level and not-knowing last HIV-RNA (Table3).

**Conclusions:** Still 40% of PWH do not know about U=U; it is essential that medical staff dedicate due time to inform their patients. The campaign did not result in an increased knowledge of U=U. Possible reasons relate to the lack of funds to promote the concept widely. In this setting, the spot intervention suggests the need for additional campaigns targeting people still unaware of this concept (those with lower educational level, older age and not MSM). Finally, HIV stigma is a multifactorial issue of which personal awareness of U=U is one -but not the only- driver.

**Table 1. Characteristics of the 820 PWH responding to the survey according to knowledge of U=U**

	Knowledge of U=U			Total N=820	p		
	No N=333	Yes N=487					
<b>Gender at birth</b>							
F	79	50.3%	78	49.7%	157	100.0%	0.005
M	250	38.1%	406	61.9%	656	100.0%	
<b>Age, mean (±SD)</b>	51.8	±11.0	47.4	±11.3	49.2	±11.40	<0.001
25-	3	30.0%	7	70.0%	10	100.0%	<0.001
26-50	126	31.2%	278	68.8%	404	100.0%	
50+	199	50.1%	198	49.9%	397	100.0%	
<b>Mode of HIV transmission</b>							
Other	18	40.0%	27	60.0%	45	100.0%	<0.001
Heterosexual	106	52.5%	96	47.5%	202	100.0%	
MSM	124	30.0%	290	70.0%	414	100.0%	
Unknwn	42	48.3%	45	51.7%	87	100.0%	
PWID	39	60.0%	26	40.0%	65	100.0%	
<b>Period</b>							
Pre-U=U campaign	136	37.6%	226	62.4%	362	100.0%	0.28
During campaign	68	42.2%	93	57.8%	161	100.0%	
After campaign	129	43.4%	168	56.6%	297	100.0%	
<b>Italian born</b>	290	39.5%	444	60.5%	734	100.0%	0.09
<b>Region where you are living</b>							
Northern	107	39.0%	167	61.0%	274	100.0%	
Central	91	49.5%	93	50.5%	184	100.0%	0.020
Southern	130	37.4%	218	62.6%	348	100.0%	
<b>Region of the center</b>							
Northern	89	37.9%	146	62.1%	235	100.0%	
Central	101	52.3%	92	47.7%	193	100.0%	<0.001
Southern	126	35.7%	227	64.3%	353	100.0%	
<b>Education level</b>							
Other	5	62.5%	3	37.5%	8	100.0%	<0.001
Elementary	9	69.2%	4	30.8%	13	100.0%	
Unknwon	11	39.3%	17	60.7%	28	100.0%	
Middle School	94	65.3%	50	34.7%	144	100.0%	
High School	155	42.5%	210	57.5%	365	100.0%	
University	55	22.0%	195	78.0%	250	100.0%	

**Table 2. Associations between knowledge of U=U and scores of the HIV-stigma questionnaire domains by means of linear regression models**

HIV-stigma scale domains	Mean(±SD)	Unadjusted linear regression model			Adjusted linear regression model*		
		beta	95%CI	p	beta	95%CI	p
<b>Personalised stigma</b>							
Not knowledge of U=U	5.8 (±2.5)	0.052	(-0.29; 0.395)	0.764	0.182	(-0.183; 0.546)	0.328
Knowledge of U=U	5.8 (±2.4)						
<b>Disclosure concerns</b>							
Not knowledge of U=U	8.9 (±2.2)	0.255	(-0.052; 0.562)	0.103	0.146	(-0.18; 0.472)	0.379
Knowledge of U=U	9.2 (±2.2)						
<b>Concerns with public attitudes</b>							
Not knowledge of U=U	8 (±2.5)	0.661	(0.348; 0.974)	<.001	0.485	(0.153; 0.816)	0.004
Knowledge of U=U	8.7 (±2.1)						
<b>Negative self-image</b>							
Not knowledge of U=U	6.5 (±2.4)	0.080	(-0.257; 0.417)	0.641	-0.143	(-0.498; 0.211)	0.428
Knowledge of U=U	6.6 (±2.4)						

\*Adjusted for age, gender, MSM, centro, education, Italian, period

**Table 3. Factors associated with NOT-knowledge of U=U using logistic regression model**

	Unadjusted model			Adjusted model*				
	OR	95%CI	p	AOR	95%CI	p		
<b>Female (vs Male)</b>	1.64	1.16	2.33	0.005	0.94	0.61	1.44	0.78
<b>Age &gt;40 yrs (vs. ≤40)</b>	1.95	1.39	2.73	<.001	1.64	1.13	2.37	0.009
<b>Mode HIV Transmission</b>								
MSM	1.00				1.00			
Other	1.56	0.83	2.93	0.169	1.27	0.64	2.52	0.487
Heterosexual	2.58	1.83	3.65	<.001	2.28	1.50	3.45	<.001
Unknown	2.18	1.36	3.49	0.001	1.76	1.06	2.93	0.03
PWID	3.51	2.05	6.01	<.001	2.43	1.35	4.35	0.003
<b>Elementary/Middle/high school (vs. University)</b>	3.44	2.44	4.85	<.001	2.83	1.97	4.08	<.001
<b>Not Knowledge of last HIV-RNA, (vs Yes)</b>	3.37	1.79	6.33	<.001	3.92	1.99	7.70	<.001
<b>Nation of birth, outside Italy (vs. Italy)</b>	1.49	0.94	2.38	0.091	1.50	0.90	2.51	0.118

\*Adjusted for the factors showed in table