# CHAPTER IV RESULTS

This research was conducted to: 1) determine the prevalence of use and intention to use HCT services among sexually experienced youth: 2) examine the predictors of use and intention to use HCT services among Thai youth and 3) explore Thai youth expectations regarding the characteristics of YFHCT services. The results of the study were presented as follows:

- 4.1 The demographic data of Thai youth and sexually experienced youth, HCT services use and intention to use HCT services.
- 4.2 The predictors of HCT service use and intention to use HCT services among sexually experienced youth.
  - 4.3 The characteristics of youth-friendly HCT services expected by youth.

### 4.1 Demographic data and characteristics of participants

The participants were recruited from six high schools and three vocational schools in Bangkok. There were 2,945 youth invited to participate and 2,574 questionnaires were returned (% by invited= 87.40) via the internet. Finally, 2,536 questionnaires (% by questionnaire sent = 98.52, % by invited= 86.10) met the inclusion criteria for the study. All participants (N= 2,536), therefore, consisted of 1,225 (48.3%) males, 1,280 (50.5%) females, and 31 participants (1.2%) reporting other genders (lesbian, gay, bi-sexual, transgender: LGBT); 1,669 (65.8%) were recruited from high schools, and 876 (34.2%) from vocational schools ranging in age between 15-24 years (mean =17.10 SD=1.3.96). A majority of 2,193 (86.47%) were aged between 15-19 years and 2,357 (92.94%) were living with parents or relatives; 114 (4.50%) were living with boyfriends or girlfriends. The median of incomes was 3,000 baht/month (about 100 USD). In all, 783 (30.88%) participants reported that they had ever had sexual experiences. Among the sexually experienced participants,

gender and person with

Table 4.1 Number percentage and prevalence of sexually experienced Thai youths, HCT services used and

intention to use HCT services among Thai youth categorized by type of school age,

whom the youth were living

530 participants had engaged in at least one sexual risk behavior over the past year while only 143 participants had ever used HCT services; 345 intended to use the services on condition; 129 intended to use the services with some conditions and 166 participants had never intended to use HCT services (Table 4.1).

% of never us ed HCT No intention (n=166) service 26.19 42.17 74.10 25.90 54.82 86.14 100.00 10.84 1.81 3.01 2 18 143 2 8 23 43 91 991 Never used HCT service (n=640) Conditional intention used HCT 21.60 20.16 19.35 22.22 48.06 51.94 68.99 31.01 44.96 52.71 10.08 86.82 100.00 % 62 67 88 9 28 89 13 112 139 Sexually experienced youth (n=783) % of never us ed HCT service 53.30 intention (n=345) 53.91 53.91 Unconditional 44.93 55.07 71.88 28.12 13.62 84.35 100.00 53.91 2.03 % 248 6 981 151 4 155 6 291 345 xperienced sexually 16.26 HCT service used 000 6.51 (n=143)67.13 74.13 13.99 32.87 58.04 3.50 100.00 86.01 0.00 % 8 8 47 83 8 32 901 123 143 Prevalence 100.00 66.18 34.12 45.16 96.49 27.66 25.35 18.81 60.79 53.38 44.83 83.27 100.00 39.21 71.01 14.05 307 476 556 418 7 110 652 227 351 21 783 34.19 86.47 13.53 64.35 4.50 92.94 1.22 (N=2536)Total 632 2193 280 2357 343 225 114 867 783 Boyfriend or girlfriend Demographic data Parents or cousins Sexual experienced Vocational (years) Living with Female 15-19 20-24 Male LGBT Gender School

### 4.1.1 Prevalence of sexually experienced Thai youth

In all, 738 youths reported to have sexual experience (prevalence = 30.88%, N=2,536). Of those who ever had sexual experience, 159 (20.57 %) had their sexual debut when aged less than 15 years and the mean age at sexual debut was 15.59 years (SD = 1.56, range = 8-20 years).

By school, the sexually experienced participants were reported by 486 vocational school students (prevalence = 54.9%, n = 867) and 307 high school students (prevalence = 18.4%, n = 1669). By gender, 14 sexually experienced youths were LGBT (prevalence = 45.16%, n = 31) and 418 were males (prevalence = 34%, n = 1,225).

The prevalence of sexual experience by age group found 556 participants to be aged from 15 to 19 years (prevalence = 25.35%, n = 2,193) and 227 were aged 20 to 24 years (prevalence = 66.18%, n = 343). The highest prevalence was also found among youth living with their boyfriends or girlfriends (96.49%) and living alone (60.00%) while 27.42% of the youths were living with their parents or relatives.

The details of the prevalence of sexual experience among participants categorized by school, age, gender and person with whom the youth were living was shown in Table 4.1.

# 4.1.2 HCT services used and intention to use HCT services among sexually experienced youth

Among the sexual experienced youth (N=783), the prevalence of HCT service use was 18.23% (n= 143) in which the majority of sexually experienced participants who had used HCT services was found among vocational school students (n=123, percentage =86.01), age 15-19 years (n=96, 67.13%), and living with parents or relatives (n=106, 74.13%). The highest prevalence for use of HCT services among the sexually experienced participants, however, was revealed among those living with girlfriends or boyfriends and living alone (29.09% and 23.18%, respectively) and among vocational school students (25.84%), while the lowest prevalence was found among high school students (6.51) and LGBT (0%). Among the sexually experienced participants who had never used HCT services (n=640), there were 474 participants (74.07%) who reported intention to use HCT services, 354 participants (53.91%) who

intended to use without any conditions and 129 participants (20.16%) who intended to use HCT services with some conditions while 166 participants (25.94%) reported no intention to use HCT services.

The majority of unconditional intentions to use HCT services was revealed among those living with parents or relatives (n=291, 84.35%), aged 15-19 years (n= 284, 71.88%) and vocational school students (n=190, 55.07%). The highest prevalence of unconditional intention to use HCT services was found among participants living with girlfriends or boyfriends (60.26%) and LGBT (57.14%). The details of HCT services used and intention to use HCT services among sexually experienced youth is shown in Table 4.1.

By actual risk behaviors among the sexually experienced youth, 148 participants reported they had never had sex during the past year while 105 participants reported having only one partner and using condoms consistently; 263 participants reported having one partner but using condoms inconsistently; 66 participants reported multiple partners and using condoms consistently while 201 participants reported having multiple partners and using condoms inconsistently. The highest prevalence of HCT service use was found among sexually experienced participants who used condoms consistently with both one and multiple sex partners (22.86% and 19.70%, respectively). Unconditional intention to use HCT services was also found among those who used condoms consistently (67.92% in multiple partners and 62.86% in one partner). However, those who reported no intention to use HCT services were high among participants who used condom inconsistently (26.51% in one partner and 24.84% in multiple partners).

By perceived risk for HIV infection, the participants who perceived high risk showed the highest prevalence of HCT serviced used (20.45%) and unconditional intention to use HCT services (61.43%) while 75% of those who reported already being infected with HIV (n=3) and 30.64% of those who perceived no risk (n=91) reported no intention to use HCT services. The details of HCT service use and intention to use HCT service categorized by actual risk and perceived risk for HIV infection were shown in Table 4.2

**Table 4.2** Numbers, percentage and prevalence of sexually experienced, HCT service used and intention to use HCT service among Thai youth categorized by Sexual risk behaviors and perceived risk for HIV infection

								Sexu	ally e	xperien	ced youth (n=	<b>783</b> )					
		•									New	er us	ed HCT	Service (n=6	40)		
Demographic data	Total (N=2536)	%	n	%	% of Total	*-		Unconditional intention (n=345)			Conditional intention (n=129)			No intention (n=166)			
	(14-2330)	•				n	%	% of sexually experienced	n	%	% of never used HCT service			n	%	% of never used HCT service	
Sexual behavior (a past year)																	
No sex	1901	74.96	148	18.90	7.79	18	12.59	12.16	64	18.55	49.23	27	20.93	20.77	39	23.49	30.00
1 sex partner & used condom consistency	105	4.14	105	13.41	100.00	24	16.78	22.86	44	12.75	62.86	15	11.63	21.43	11	6.63	15.71
1 sex partner & used condom inconsistency	263	10.37	263	33.59	100.00	48	33.57	18.25	105	30.43	48.84	53	41.09	24.65	57	34.34	26.51
Multiple sex partners & used condom consistency	66	2.60	66	8.43	100.00	13	9.09	19.70	36	10.43	67.92	9	6.98	16.98	8	4.82	15.09
Multiple sex partners & used condominconsistency	201	7.93	201	25.67	100.00	40	27.97	19.90	96	27.83	59.63	25	19.38	15.53	40	24.10	24.84
Perceived risk for HIV infection																	
No risk	1731	68.26	363	46.36	20.97	66	46.15	18.18	156	45.22	52.53	50	38.76	16.84	91	54.82	30.64
Low risk	496	19.56	256	32.69	51.61	45	31.47	17.58	110	31.88	52.13	56	43.41	26.54	45	27.11	21.33
Mediumrisk	108	4.26	71	9.07	65.74	13	9.09	18.31	35	10.14	60.34	9	6.98	15.52	14	8.43	24.14
High risk	185	7.29	88	11.24	47.57	18	12.59	20.45	43	12.46	61.43	14	10.85	20.00	13	7.83	18.57
Infected	14	0.55	4	0.51	28.57	0	0.00	0.00	1	0.29	25.00	0	0.00	0.00	3	1.81	75.00
Missing	2	0.08	1	0.13	50.00	1	0.70	100.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00

# 4.1.3 HIV knowledge, knowledge and awareness toward HCT and willing to pay for HCT service among sexually experienced youth categorized by used and intention to use HCT service

The majority of sexually experienced youth, could not correctly answer all 5 UNGASS's knowledge questions (N= 704, 89.91%) while only 6.90% could correctly answer all 5 questions of UNGASS but could not correctly answer all 9 questions and only 3.19% (n=25) could correctly answer all 9 questions. However, 40.00% of those who could correctly answer all 9 questions had ever used HCT service while only 18.32% and 7.41% among those who could not correctly answer all 5 UNGASS's questions and could correctly answer all 5 questions of UNGASS but could not correctly answer all 9 questions respectively. Among those who never used HCT service, 93.20% of those who reported conditional intend to use HCT service could not correctly answer 5 questions of UNGASS and 46.67% of those who correctly answered all 9 questions reported unconditional intention and 40.00% reported no intention to use HCT service.

Moreover, the knowledge and awareness of HCT service results indicated that, of 71.33% who had used HCT services, 55.94% reported unconditional intention and 45.75% reported conditional intention to use HCT services were informed about HCT services and knew where HCT services were located while 71.73% of those who reported no intention to use HCT services did not know where HCT services were located.

In addition, the findings also indicated that 109 sexually experienced participants who had used HCT services (76.22%) reported they were willing to pay for using HCT services whenever necessary. Among those who had never used HCT services, 86.09% and 82.17% who reported unconditional and conditional intention to use HCT services were also willing to pay for services, while 45.18% of those who did not intend to use HCT services reported they were unwilling to pay for HCT services.

The details of HIV knowledge, HCT knowledge and awareness, and willingness to pay for HCT services among the sexually experienced youths categorized by use and intention to use HCT services are presented in Table 4.3

**Table 4.3** HIV knowledge HCI knowledge and awareness and willingness to pay for HCT services among sexually experienced youth categorized by use and intention to use HCT services

								Sexu	ıally e	xperien	ced youth (n=	783)					
		-	n								New	er use	ed HCT	Γ service (n=6	40)		
Demographic data	Total (N=2536)	%		%	% of Total	НСТ	l' service	used (n=143)	Unc		nal intention =345)	Conditional intention (n=129)			No intention (n=166)		
	(N=2530)	•				n	%	% of sexually experienced	n	% of never		n	%	% of never used HCT service	n	%	% of never used HCT service
HIV knowledge																	
Correct < 5 questions Of UNGASS	2295	90.50	704	89.91	30.68	129	90.21	18.32	308	89.28	53.57	120	93.02	20.87	147	88.55	25.57
Correct all 5 questions of UNGASS	183	7.22	54	6.90	29.51	4	2.80	7.41	30	8.70	60.00	7	5.43	14.00	13	7.83	26.00
Correct all 9 questions	58	2.29	25	3.19	43.10	10	6.99	40.00	7	2.03	46.67	2	1.55	13.33	6	3.61	40.00
Knowledge and awareness of HC	T																
Informed & known HCT site location	1171	46.18	406	51.85	34.67	102	71.33	25.12	193	55.94	63.49	59	45.74	19.41	52	31.33	17.11
Informed & unknown HCT site location	264	10.41	90	11.49	34.09	12	8.39	13.33	29	8.41	37.18	22	17.05	28.21	27	16.27	34.62
Never informed & known HCT site location	543	21.41	119	15.20	21.92	16	11.19	13.45	51	14.78	49.51	22	17.05	21.36	30	18.07	29.13
Never informed & unknown HCT site location	557	21.96	168	21.46	30.16	13	9.09	7.74	72	20.87	46.45	26	20.16	16.77	57	34.34	36.77
Willing to pay																	
yes	1913	75.43	603	77.01	31.52	109	76.22	18.08	297	86.09	60.12	106	82.17	21.46	91	54.82	18.42
no	623	24.57	180	22.99	28.89	34	23.78	18.89	48	13.91	32.88	23	17.83	15.75	75	45.18	51.37

# 4.1.4 Attitude toward HIV testing, perceived HIV/AIDS stigma and expectation of characters of YFHCT services among sexually experienced and those who had used HCT services and intended to use HCT services

The findings on attitude toward HIV testing, perceived HIV/AIDS stigma and expectation of characters of YFHCT services among sexually experienced Thai youth, and those who had used HCT services, and intended to use HCT services are shown in Table 4.4

Among the sexually experienced participants, the mean scores for attitude toward HIV testing (possible scores ranging from 22 to 110 points), perceived HIV/AIDS stigma (possible scores ranging from 23 to 92 points) and expectation on YFHCT services (possible scores ranging from 36 to 144 points) were 74.77 (SD=12.19), 50.39 (SD=10.17) and 110.26 (SD=26.98), respectively.

The mean score for attitude toward HIV testing among those who had used HCT services was 76.77 (SD=12.99), which was the same as the score among unconditional intention to use HCT services (mean= 76.77, SD=12.07) while the mean score among those who reported conditional intention to use HCT services was 73.66 (SD= 10.26) and 69.99 (SD=11.47) among those who reported no intention to use HCT services.

The mean score of perceived HIV/AIDS stigma among those who ever used HCT services was 50.77 (SD=10.82) with a mean score of 49.74 (SD=10.46) among the participants with unconditional intention to use HCT services while the mean was 49.92 (SD= 9.19) among those who reported conditional intention to use HCT services and 51.76 (SD=9.64) among those who reported no intention to use HCT services.

Lastly, the mean scores on expectation for YFHCT services among those who ever used HCT services was 108.81 (SD=28.70) and 114.92 (SD=23.32) among the participants with unconditional intention to use HCT services while the mean score was 113.91 (SD=29.05) among those who reported conditional intention to use HCT services and 99.01 (SD=27.71) among those who reported no intention to use HCT services.

Never used HCT services (n=640) Sexually **HCT** services Unconditional **Conditional** No intention experienced used (n=143) Variable (possible score) intention (n=345) intention (n=129) (n=166)(n=783)SD SD SD SD SD mean mean mean mean mean **Attitude toward HIV testing** 21.23 5.605 22.41 5.262 22.41 5.249 20.84 5.203 18.08 5.692 Trust (6-30) 19.18 5.319 19.55 6.176 19.24 5.214 18.97 4.500 18.91 5.355 General Concern (6-30) 13.05 4.298 13.58 4.454 13.23 4.285 12.34 3.821 12.77 4.482 Fear (4-20) 2.892 3.006 3.072 11.00 3.059 10.85 3.338 11.44 10.83 10.34 Confidential (3-15) 10.31 2.686 10.38 2.698 10.46 2.757 10.37 2.516 9.90 2.637 Friend Concern (3-15) 74.77 12.194 76.77 12.995 76.77 12.073 73.36 10.624 69.99 11.472 Total (22-110) Perceived of AIDS stigma 21.25 5.031 21.52 20.93 5.103 20.90 4.805 21.95 4.716 5.350 Shame (10-40) 18.98 4.866 18.85 5.302 18.90 4.916 18.91 4.589 19.30 4.602 Discrimination (8-32) 2.785 10.16 2.769 10.40 2.712 9.92 10.11 2.693 10.51 2.815 Equity (5-20) 50.39 10.173 50.77 10.822 49.74 10.461 49.92 9.193 51.76 9.637 Total (23-92) **Expectation of Characteristics of YFHCT Services** 18.29 4.674 18.20 4.961 19.08 4.170 18.91 4.932 16.25 4.627 Equitable (6-24) 18.46 4.095 18.95 5.085 4.687 18.18 4.958 19.24 16.68 4.817 Accessible (6-24)

6.552

7.392

5.986

28.703

25.39

28.78

22.42

114.92

5.575

6.131

4.945

23.323

25.48

28.56

22.01

113.91

6.660

7.444

5.956

29.049

21.96

24.72

19.39

99.01

6.420

7.158

5.892

27.708

24.45

27.58

21.49

110.26

Acceptable (8-32)

Appropriate (9-36)

Effective (7-28)

Total (36-144)

6.271

6.994

5.637

26.982

24.13

27.11

21.19

108.81

**Table 4.4** Mean and standard deviation of attitude toward HIV testing, perceived AIDS stigma and expectation of characters of YFHCT services among sexually experienced, and those who had used HCT services, and intention to use HCT services

#### 4.1.5 Time of testing, knowing blood test results, and service sites used

Among the 143 youths who had used HCT services, 66.43% (n= 95) had used the services once in their lifetimes, 8.39% (n=12) had used the services more than 3 times, and 96.50% (n=138) reported having received and known their blood test result. Moreover, public hospitals and mobile HCT services were the second highest of HCT service sites used by Thai youths.

In addition, the motivations for use were reported to consist of wanting to know HIV status, HCT services were offered at school for free of charge, fear of HIV infection, fear of pregnancy, risk for HIV infection, blood donation and surgery. The details of the characteristics of using HCT services among sexually experienced Thai youth are shown in Table 4.5.

**Table 4.5** Number and percentage of sexually experienced Thai youths who had used HCT services categorized by knowing blood test results, times HCT services were used and sites where HCT services were used (N=143).

Characteristics of HCT Use	N	%
Know HIV blood test results		
No	5	3.50
Yes	138	96.50
Number of HCT service use		
Once	95	66.43
Twice	25	17.48
Three times	8	5.59
More than 3 times	12	8.39
No response	3	2.10
Service Site Use (multiple responses possible)		
Public hospital	79	55.24
Private hospital	38	26.57
Health service center	24	16.78
Clinic	12	8.39
Mobile center	69	48.25

# 4.2 Predictors of HCT service use and intention to use HCT services among sexually experienced Thai youth

According to the research hypotheses, a binary logistic regression analysis was conducted to identify the predictors of HCT service use among sexually experienced Thai youth (n=783) and the predictors of intention to use HCT services

among those who had never used HCT services (n= 640). Predisposing characteristics (gender, HIV knowledge, attitude toward HCT), enabling factors (HCT knowledge and awareness, and willingness to pay), needs (perceived and actual risk for HIV), and health care service characters (expectation of YFHCT services) were counted as independent variables. The findings of this part are presented as follows:

# 4.2.1 Predictors of HCT service use among sexually experienced Thai youth

The results of binary multiple logistic regression indicated that HIV knowledge, attitude toward HIV testing, HCT knowledge and awareness, perceived and actual risks for HIV and expectation of YFHCT services were significant associated of HCT service use among sexually experienced Thai youth. However, neither perceived HIV/AIDS stigma nor HIV knowledge predicted HCT service use. Nagelkerke's R<sup>2</sup> implied that the model explained a 13.5% relationship between prediction and grouping (chi square =67.395, df=19, p< .01).

The odds ratio (EXP(B)) value and Wald criterion significantly demonstrated that HCT service use increased among those who been informed about HCT services and knew the location of HCT services (OR =4.373, 95% CI=2.319-8.249, p<.001), were correct on all 9 questions on HIV knowledge (OR =3.105, 95% CI=1.289-7.482, p=.012), had one sex partner in a past year and used condoms consistently (OR =2.356, 95 CI=1.158-4.479, p=.018), had multiple sex partners without consistent condom use (OR =1.961, 95 CI=1.033 -3.722, p=.030), and had higher scores on attitude toward HCT (OR =1.029, 95 CI=1.010-1.049, p=.003). The formula of predictor's model was;

$$\begin{split} Y_1 = -5.308 - .980 \text{HIV} K_1 + 1.133 \text{ HIV} K_2 - .029 \text{ ATTHT} \\ + .674 \text{ ARHIV}_1 + .511 \text{ ARHIV}_2 & + .596 \text{ ARHIV}_3 \\ + .857 \text{ ARHIV}_4 + 1.476 \text{ KAHCT}_1 + .572 \text{ KAHCT}_2 \\ + .785 \text{ KAHCT}_3 \end{split}$$
 If ;  $Y_1 = \log \left( \frac{\text{Probability of use of HCT service}}{1 - \text{Probability of use of HCT service}} \right)$ 

However, gender, perceived HIV stigma, level of risk for HIV perception, willingness to pay and YFHCT service expectations were not significant predictors of HCT service use among youths who were sexually experienced.

The details of binomial multivariate logistic regression for the use of HCT services among Thai youths who were sexually experienced is presented in Table 4.6.

Table 4.6 -Binomial multiple logistic regression models of predictors of HCT service use among sexually 1.83 9546 CI 88 019 8 8 Erp(B) 48 S ¥ 88 9113 200 250 88 Chi square = 26 984 Chi square = 1,159 Chi square = 6323 Chi square = 9.824 Chi square = 1552 339 10214.73 충물 SE 8 Used Condoms Inconsistently (4RHIVI) Never informed about HCT service & did not know its location (KWHCT) service and known its location (XABCT) Correct on 5 UNGASS questions, but not on all 9 questions (HIVK1) Never informed about HCT service & known its location (KAHCT2) Had informed about HCT service & did not know its location (KAH) Having 1 sex partner & Used Condoms Inconsistently (ARHIV Inowiedge and Awareness of HCT Services for Youth (KAHCT Never had sexual intercourse in a past year (ARHIV) Baving I sex partner & Used Condoms Consistently Touth-Friendly HCT Service Expectations (YFHCT) Cornect < 5 UNGASS's Questions (HIVK) (ref) experienced Thai youth (N=783) Variables Perceived Risk for HIV Infection (PRHIV crual Risk for HIV Infection (ARHIV) Correct on all 9 enestions (HIVE) tititude toward HIV testing (ATTH) Having multiple sex parmers & l Health Care Service Characteristics Already Infected (PRHIVI) Perceived HIV/AIDS stigma Medium Risk (PRHIV3) redisposing Characteristics HIV Knowledge (HIVK) High Risk (PRHIV) LOW Rick (PRHIV4) No Risk (PRHIV) Male (ref) Female

Nagelkerke's  $\mathbb{R}^2 = .135$ , chi square =67.395, df=19, p< .01

# 4.2.2 Predictors of intention to use HCT services among sexually experienced Thai youth who had never use HCT services

The results of the multinomial multivariate logistic regression analysis revealed the predictors of intention to use HCT services among sexually experienced Thai youth who had never used HCT services. The Nagelkerke's R<sup>2</sup> was shown at .262 or 26.2% of the variance in intention to use HCT services which was predicted by variables (Chi square =164.669, df=38, p< .001). To present the multinomial multivariate logistic regression analysis of predictors of intention to use HCT services among Thai youth who were sexually experienced, these findings on the predictors of unconditional intention are presented in Table 4.7 and the predictors of conditional intention are shown in Table 4.8

The odds ratio (EXP(B)) value and Wald criterion significantly demonstrated that unconditional intention to use HCT services was raised when having a higher score of expectation of YFHCT services (OR =1.020, 95%CI=1.012-1.0259, p =001), a higher score on attitude toward HIV testing (1.038, 95%CI=1.0186-1.062, p<.001), perceived high risk for HIV infection compared to perceived no risk for HIV infection (OR =2.452 and 95%CI= 1.133-5.307, p =.023), having multiple sex partners and using condoms consistently compared to not having sex during the past year (OR=3.714, 95%CI=1.354-10.185, p<.05), willingness to pay for services (OR=3.453, 95%CI=2.138-5.579, p<.001), and having HCT information and knowing where the HCT services are located compared to have never been informed about HCT services and not knowing where HCT services were located (OR =2.348, 95%CI=1.387-3.977, p=.001).

However, gender, HIV knowledge, and perceived HIV stigma could not predict unconditional intention controlling for no intention among youths who were sexually experienced.

The formula of this predictive model was;

$$Y_2 = -5.660 + .036ATTHT - 1.152 PRHIV_1 + .897 PRHIV_2 + .266 PRHIV_3 + .132$$
  
 $PRHIV_4 + .471 ARHIV_1 + 1.312 ARHIV_2 - .176 ARHIV_3 - .059 ARHIV_4$   
 $+ .854 KAHCT_1 + .028 KAHCT_2 - .177 KAHCT_3 + 1.239 WTP + .020 YFHCT$ 

If; 
$$Y_2 = log \left( \frac{Probability of unconditional intention to use of HCT service}{Probability of no intention to use of HCT service} \right)$$

**Table 4.7** Multinomial multiple logistic regression models of predictors of unconditional intention to use HCT service among sexually experienced youth who never used HCT service (N=640)

Variables	В	S.E.	Wald	df	Sig.	Exp(B)	95%	C.I.
	ь	.J.L.	,, and	· ·	oig.	Exp(D)	Lower	Upper
Predisposing Characteristics			•			,		
Gender								
Male (ref)		-	-	-	-	7	-	-
Other	.075	.829	.008	1	.928	1.078	.212	5.474
Female	178	.232	.588	1	.443	.837	.531	1.319
HIV Knowledge (HIVK)								
Correct < 5 UNGASS's Questions (HIVK) (ref)	-7	-	; <b>-</b>	- 2	-		-	
Correct on 5 UNGASS questions, but not on all 9 questions (HIVK1)	.069	.395	.030	1	.862	1.071	.493	2.325
Correct on all 9 questions(HIVK2)	228	.693	.108	1	.742	.796	.205	3.096
Attitude toward HIV testing (ATTHT)	.038	.011	11.29	1	.001	1.038	1.016	1.062
Perceived HIV/AIDS stigma (HASTG)	.000	.012	.000	1	.995	1.000	.977	1.024
Need Components								
Perceived Risk for HIV Infection (PRHIV)								
No Risk (PRHIV) (ref)	-	-	-	-		-		-
Already Infected (PRHIV1)	-1.152	1.38	.699	1	.403	.316	.021	4.699
High Risk (PRHIV2)	.897	.394	5.183	1	.023	2.452	1.133	5.307
Medium Risk (PRHIV3)	.266	.397	.449	1	.503	1.305	.599	2.840
Low Risk (PRHIV4)	.132	.250	.281	1	.596	1.141	.700	1.862
Actual Risk for HIV Infection (ARHIV)								
Never had sexual intercourse in a past year (ARHIV) (Ref)	L)		3	_	_		-	_
Having multiple sex partners & Used Condoms Inconsistently (ARHIV1)	.471	.320	2.161	1	.142	1.602	.855	3.001
Having multiple sex partners & Used Condoms Consistently (ARHIV2)	1.312	.515	6.499	1	.011	3.714	1.354	10.18
Having 1 sex partner & Used Condoms Inconsistently (ARHIV 3)	176	.309	.323	1	.570	.839	.458	1.538
Having 1 sex partner & Used Condoms Consistently (ARHIV4)	059	.377	.025	1	.875	.942	.450	1.973
Enabling Resources	.023		.025					
Knowledge and Awareness of HCT Services for Youth (KAHCT)								
Never informed about HCT service & did not know its location (KWHCT) (ref)		-	-	-	_	_	_	
Had informed about HCT service and known its location (KAHCT1)	.854	.269	10.09	1	.001	2.348	1.387	3.977
Never informed about HCT service & known its location (KAHCT2)	.028	.327	.007	1	.931	1.029	.542	1.952
Had informed about HCT service & did not know its location (KAHCT3)	177	.362	.240	1	.624	.838	.412	1.701
Willingness to Pay (WTP)	1.239	.245	25.65	1	.000	3.453	2.138	5.579
Health Care Service Characteristics	1.207	.245	20.00	4	.000	0.400	2.250	0.073
Youth-Friendly HCT Service Expectations (YFHCT)	.020	.004	21.61	1	.000	1.020	1.012	1.029
Constant	-5.660	1.27	19.978	1	.000	-5.660	1.012	2.029

Moreover, the odds ratio and Wald criterion significantly demonstrated that conditional intention to use HCT services was raised with a higher scores of expectation of YFHCT services (OR =1.018, 95%CI=1.008-1.028, p<.001), perceived low risk for HIV infection controlling for no risk perception (OR =1.892, 95%CI=1.086-3.312, p=.025), and willingness to pay (OR=2.959, 95%CI=1.649-5.308, p<.001). However, gender, attitude toward HCT, perceived HIV stigma and actual risk for HIV were not found to significantly predict conditional intention controlling by no intention to use HCT services among sexually experienced Thai youth.

The formula of this predictive model was;

If; 
$$Y_3 = log \left( \frac{Probability of conditional intention to use of HCT service}{Probability of no intention to use of HCT service} \right)$$

**Table 4.8** Multinomial multiple logistic regression models of predictors of conditional intention to use HCT service among sexually experienced youth who never used HCT service (N=640)

Variables	В	S.E.	Wald	df	Sig.	Exp(B)	95%	C.I.	
Valiables		J.L.	waiti	· ·	Jag.	Lip(D)	Lower	Upper	
Predisposing Characteristics									
Gender									
Male (ref)	-	-	-	-	-	-	-		
Other	.398	.939	.180	1	.672	1.489	.237	9.37	
Female	.167	.272	.377	1	.539	1.181	.694	2.01	
HIV Knowledge (HIVK)									
Correct < 5 UNGASS's Questions (HIVK) (ref)	-	-	-		-	-			
Correct on 5 UNGASS questions, but not on all 9 questions (HIVK1)	465	.912	.260	1	.610	.628	.105	3.74	
Correct on all 9 questions(HIVK2)	511	.511	1.002	1	.317	.600	.220	1.632	
Attitude toward HIV testing (ATTHT)	.011	.013	.753	1	.386	1.011	.986	1.03	
Perceived HIV/AIDS stigma (HASTG)	008	.014	.304	1	.581	.992	.965	1.02	
Need Components									
Perceived Risk for HIV Infection (PRHIV)									
No Risk (PRHIV) (ref)	-	-	-	-	-	-	-2		
Already Infected (PRHIV1)	-18.995	.000	-	1	-	.000	.000	5.631	
High Risk (PRHIV2)	.889	.456	3.794	1	.051	2.432	.994	5.94	
Medium Risk (PRHIV3)	060	.498	.014	1	.905	942	.355	2.50	
Low Risk (PRHIV4)	.640	.285	5.057	1	.025	1.896	1.086	3.31	
Actual Risk for HIV Infection (ARHIV)									
Never had sexual intercourse in a past year (ARHIV) (Ref)	-	-	_		-	_	_		
Having multiple sex partners & Used Condoms Inconsistently (ARHIV1)	136	.383	.126	1	.723	.873	.412	1.850	
Having multiple sex partners & Used Condoms Consistently (ARHIV2)	.749	.601	1.553	1	.213	2.115	.651	6.87	
Having 1 sex partner & Used Condoms Inconsistently (ARHIV 3)	146	.351	.174	1	677	864	.434	1.720	
Having 1 sex partner & Used Condoms Consistently (ARHIV4)	297	.448	.441	ī	.507	.743	.309	1.78	
Enabling Resources	.25 /	.110		•	.507		.505	1.70	
Knowledge and Awareness of HCT Services for Youth (KAHCT)									
Never informed about HCT service & did not know its location (KWHCT) (ref)	_	_	_	-		_	_		
Had informed about HCT service and known its location (KAHCT1)	.579	327	3.134	1	.077	1.785	.940	3.39	
Never informed about HCT service & known its location (KAHCT2)	.252	.394	.411	1	.521	1.287	.595	2.78	
Had informed about HCT service & did not know its location (KAHCT3)	.426	.402	1.124	1	.289	1.531	.697	3.36	
Willingness to Pay (WTP)	1.085	.298	13.24	1	.000	2.959	1.649	5.30	
Health Care Service Characteristics	1.003	.270	13.27	1	.000	2.737	1.049	3.30	
Youth-Friendly HCT Service Expectations (YFHCT)	.018	.005	11.99		.001	1.018	1.008	1.02	
Constant	-3.916	1.48	7.020	1	.002	1.010	1.000	1.02	

### 4.3 Characteristics of youth-friendly HCT services expected by youth

To explore the characteristics of YFHCT services expected by Thai youth was one of the key research objectives in this study. The researcher collected the qualitative data from semi-structured telephone interviews. The participants who volunteered were 20youths 9 from high schools and 11from vocational schools (male and female= 7and 13). The mean age was 18.25years (SD =1.36 years, range = 16-21). The median of income was 3,000 baths. Sixteen youths reported they were sexually experienced. For those who were sexually experienced, the mean age of the first sexual intercourse was 15.75years (SD=2.053years), only 2 youths used condom consistently, 8youths never used condoms during sex and 8 youths had been tested for HIV. Of those voluntary participants; therefore, 16participants were sexually experienced, only 8 participants had ever been tested for HIV. However, 4 participants had never had sexually experienced (Table 4.9)

**Table 4.9** Number of voluntary participants for interviewing

	High scho	ool (n=9)	Vocational	Vocational school (n=11)				
	Male	Female	Male	Female				
Not sexually experienced	0	2	1	1	4			
Sexually experienced	2	5	5	4	16			
Tested for HIV	1	2	2	3	8			
Never tested for HIV	1	3	3	1	8			

The eight sexually experienced youths who had used HCT services were asked to share their experiences about their use of HCT services, where and how to use HCT services and what they encountered when they used HCT services. Finally, they were asked what characteristics of YFHCT services they expected and how the services should be arranged.

The eight sexually experienced youths who had never used HCT services were asked about how significantly they perceived HCT services and whether or not they wanted to use the services. There were also asked if they had ever known someone who had used these services and how they had been informed about the services. Finally, what characteristics of youth-friendly services they expected and how to arrange the youth-friendly HCT services if the youths needed to use them.

Lastly, most of the four youths who were not sexually experienced had also never used HCT services. They were asked to share their opinions about how HCT services were currently significant for youth. They were also asked what would make HCT services friendlier for youths and how to arrange youth-friendly HCT services in order to increase accessibility for at risk youth.

The results of the content analysis revealed the characteristics of youth-friendly HCT services expected by youths who volunteered to be interviewed on the following 3 major themes: 1) HCT service locations should not be in hospitals and should be private with a good atmosphere; 2) YFHCT services should provide accessible, unlimited and convenient times with appropriate payment; and 3) friendly providers should be of the same gender with understanding and confidentiality free from judgment.

# 4.3.1 HCT service locations should not be in hospitals and should be private with a good atmosphere

All of the sexually experienced youths who had used HCT services had concurrent opinions that the HCT services should be mobile services in schools where they can be most available to young people accessing the services.

A vocational school, male youth who had used HCT services suggested that the HCT services should start by visiting the school, providing information about HIV testing in order to raise youth awareness about the advantages of HIV testing. It is not necessary to conduct HCT services only in schools. The services may be conducted outside schools such as at shopping centers where youths can access the services after they want to know their HIV status.

"... I think...take an HCT mobile van to schools, colleges or universities. Whoever wants to know their HIV status and are willing to test for HIV can be tested. I think they may be feel more shame if they dare to check their blood. Give them information if they are interested in getting the HIV testing but not ready yet. Tell them where they can go after that. The HCT service site should not be located in hospitals; I think shopping centers might be better. Most youths like to go to shopping malls more than hospitals because there is so much entertainment there. Furthermore, it

should have a clear placard at the HCT service site. In my opinion, it is not necessary to be concealed..." (M13)

Furthermore, three female vocational school youths who had used HCT services expected that HCT services should be held in schools

"... Coming to school to advise them frankly, you should tell them honestly that whoever has promiscuous behaviors without protection by condoms and is interested in knowing their HIV status... give them a telephone number or ask them to leave their number where they can be contacted later; if their blood results are negative, tell them why and how to prevent further infection. If positive, they should be treated..." (F14)

"...Come to school! All may be checked if teachers enforce it... but I guess it wouldn't be very good to force them. Teachers should help tell them and then give them a chance to decide to be tested voluntarily. However, in letting them know their status after testing, privacy is very important because they don't want to disclose their HIV status to others, including teachers..." (F17)

"... Services in schools are better than in hospitals. A lot of youths are in school. But give them more and more information; I think they don't want to go to be tested for HIV if services are located in hospitals. Few people really want to go to hospitals because they are afraid. In my opinion, I want to see this service in schools or communities. Whoever volunteers to be tested should be tested because many youths are sexually active today. However, if there is someone who can bring them to be tested outside schools, it might be better because no one in school would know. It is very hard to go alone..." (F19)

Among those who were sexually experienced but had never used HCT services, however, it was suggested that HCT services should be held in hospitals but youths needed to know where the services are located. Whenever youths want to use this service, they should be able access directly and easily.

A male youth in high school who was sexually experienced stated,

"...They should have a permanent location, probability in hospitals; then distribute leaflets and give information about HCT services

via schools or websites. Appointments might be set up by phone. When they go to hospitals they can go directly to the HCT service site and won't need to wait in line with other patients..."(M1)

"...For me... in hospital is OK but should be separated from other parties and patients..." (F2)

Among the youths who were not sexually experienced, it was pointed out that hospitals are not appropriate for providing youth-friendly HCT services because hospitals are very busy and youths don't like to go to hospitals. For example, two girls from high school suggested,

"... Hospitals are so crowded. Youths don't want to go there. If HCT services are located in a health center it would be less crowded than a busy hospital; it would be more fitting..."(F5)

"... The hospital is not a place for teenagers who rarely go there. The shopping mall is better because youths like to go. If there are presenters to announce and invite youths to use HCT services, youths would be interested..." (F6)

In addition, a vocational school male who was not sexually experienced commented that HCT services for youth should not be located in hospitals.

"...Hospitals are not suitable because a lot of people are walking around; it's too crowded and too busy. I think HCT services should be located someplace out of sight from other people because youths who want to be tested do not want to meet anyone they know when they go to HCT services. I think a service unit in the park would be a good idea because it's refreshing..." (M11)

To arrange the HCT service site, one sexually experienced female youth who had never used HCT services suggested,

"...In the HCT services, It should be a private room with a separate entrance and exit without a lot of people walking around or visibility by others. Then we will dare to talk..." (F10)

Furthermore, another vocational school, male youth commented,

"...Privacy is needed to talk about personal stories so it should be a private room without many people walking around. If it is like that, I wouldn't want to talk about anything. It's very embarrassing..." (M 18)

# 4.3.2 Youth-friendly HCT services should provide accessible, unlimited and convenience in terms of time with appropriate payment

Although most of the participants required privacy to discuss with the provider, there are also many young people who want to have their close friends with when they go to HCT services. Therefore, YFHCT services should be flexible to allow them to bring someone with them if needed. However, most of them want to talk privately during post-counseling.

A vocational school, male youth talked about his experience when he went to HCT services with his friend,

"...At the time, I was ill. I had a cold and fever. My friend asked me to check my blood and brought me to an HCT service site in a hospital. I refused because my friend went to the hospital with me. If I had gone alone, I wouldn't have wanted to do it because it was very embarrassing, I think. While talking with the provider, my friend sat beside me. The doctor asked me so many questions I cannot remember them all. One question I don't forget was that she asked how many times I'd had sex before going to HCT services and whether or not I had used condoms consistently. I don't know how much shame I would have felt if I had gone alone to see the doctor. Fortunately, my friend was with me ...." (M13)

Another vocational school, male youth told the researcher about his HCT service use experience,

"...Two months ago, I went to an HCT service site and got checked for HIV. I'd never thought I was at risk before that time. Actually, my friend told me he was at risk and wanted to check his blood but he didn't dare go to HCT services alone because he would be shamed. So, I went with him. Like me, if I had had to go to use HCT services alone, I would not have gone. But when we have someone to go with, it feels warm..." (M1)

It was not different for female vocational school youth who were sexually experienced but had never used HCT services. One girl expected HCT services that were friendly should allow someone to accompany youths while discussing with the provider,

"... If I were to be tested, they should allow me to go with my group of friends.... I think it might be good to have friends with and be tested together. I mean if I meet others I don't know whether or not I would be shy. But with my friends, we know each other well, so it is less embarrassing than being with strangers. However, I want to be with my friends only to discuss before testing my blood and during the testing. After that, when the provider notifies us of the blood test results, I want to talk privately with the provider. It would be better because I don't know what they would think if my bloods test results are positive. They may not want to be my friend if I'm infected..." (F10)

In addition, the service provider should be flexible in terms of having a friend as expected by youth. Requiring parental consent for youths aged under 18 years is also a major issue. Most of the participants expected that youth-friendly services should not involve age limits; therefore, parental consent should not be required. Whenever and whoever wants to be tested should have services provided because they know their risks.

A vocational school, male youth who had never used HCT services told the researcher about his friend who went to a hospital with gonorrhea but he did not receive HIV testing because his age was less than 20 years old.

"...I once heard my friend share about HIV testing; he told me that one day, he went to hospital to check up because he had gonorrhea from a sex partner. He didn't only want to be checked for gonorrhea, but HIV also. So, he asked the doctor to be tested for HIV but the doctor did not do it for him and told him that he should be at least 20 years old and come back again. If he wanted to be tested that time, parental consent was required. My friend told me how he couldn't possibly ask his parents, so he had no chance to be tested for his HIV status..." (M8)

However, some participants reflected that, although letting parents know is a good thing, it is not necessary for HIV testing.

"... It's good to let parents know, but it's impossible! I think that no one dares to ask for consent from his parents. It should not be required..." (F10)

Similarly, most of the participants reflected that YFHCT services should not ask for parental consent among those aged less than 18 years.

"... I think it's not necessary to have parental consent because youths should be able to take care of themselves. I think maybe 14-year-olds should be allowed to test for HIV without parental consent. They are afraid to tell their parents. If they tell their parents, they might be punished..." (F4)

"... Things are different these days. At age 15 they start to have sex... So, HIV testing should be provided without parental consent..." (M7)

In addition to limitations in terms of age and parental consent in youth under 18 years old, YFHCT service times should be provided conveniently for youth. A male youth from high school told the researcher he wanted to take a test but he didn't have time to use the services.

"... I just wanted to check my blood also because I always have sex with my girlfriend without using a condom. But I don't have a suitable time. It would be so good if they could be open late Saturday and Sunday about 9-10am or about 6-8 pm on weekdays..." (M 1)

In addition, other youths expected that YFHCT services should be open in the evenings and on weekends.

- "...Well, weekends! On Saturday, it should be extended. Moreover, in the evening it should be extended for an hour and a half or two hours until 8 pm..." (F4)
- "... Afternoon may be a suitable time to open HCT services for youths because they always wake up late, especially on the weekends..."

  (M9)

The last issue about service delivery is the cost of HCT service for youths. Most participants pointed out that the cost of HIV testing and HCT service use should

not be too expensive for youths to pay. However, if this service is free for youths, it would be even better.

- "... It's good to provide free services. Youth will not pay to get counseling. They might be more confident to receive HIV testing..." (M1).
- "... I think free services are better because they will attract youth. Some don't want to be tested for HIV because they think they have to pay for services...." (F4)
- "... We don't know whether they have enough money or not. If they are students, they might not have more money. They are supported by their parents. If they have to pay, I think it should not be too expensive for them- about 100-200 baht might be suitable..." (F10)

### 4.3.2 Friendly providers should be the same gender with understanding, confidentiality and free from judgment

According to the interviews, friendly providers are significant components of YFHCT services. Sexually experienced youths expect friendly providers should be same gender, respect the rights of youth, have morality and ethics, be non-judgmental and not disclose the secrets of the youth. While youths who were not sexually experienced and had never used HCT services expected providers who understood youth, encouraged, and supported their emotions as they needed, particularly if they test positive for HIV.

A female youth who had ever used school HCT mobile services told the researcher that females used HCT services more than males at that time because the provider is a female.

"... Once I was tested for HIV at school. There was a mobile HCT service coming. The provider gave us information about HIV and HCT services. She told us to be afraid of having AIDS and suggested that we test for HIV if we had risks, especially for those who have multiple sex partners. A lot of students got the HIV testing voluntarily, but I saw more females than males.... I don't know why because I think males are more promiscuous than females. It might be because the provider was female, therefore, females were not ashamed. Male students may be shamed

because the provider is not the same gender. For me, if the provider were a male, I would be not tested, because I would be ashamed of the male provider."(F14)

A vocational school, male who was a sexually experienced youth who had ever used HCT services at hospital told the researcher about his experience when he was tested.

"I once had HIV testing at a hospital. It was very shameful, particularly when the provider asked me about my sex behavior. In my opinion, youth don't want to be tested for HIV because they would be ashamed to talk about their sexual behaviors with providers. At that time I met a female provider, so it made me more embarrassed. If it was male provider, I think might have been better." (M13)

Similarly, both male and female sexually experienced youth who had never used HCT services expected to meet same gender providers when they used HCT services.

"Female youth should have services provided by female providers and males should have services provided by male providers, so we can dare to talk about personal matters. I don't want to be more ashamed." (F10)

"For me, it's not a matter of meeting male or female providers. As a male, however, it would be best if I meet a male provider because male providers will understand male youth." (M18)

Furthermore, providers who have understanding about youth, morality and ethics free from judgment are reflected as friendly providers by a female sexually experienced youth.

"In society, others might look down on youth who go to HCT services. They may think about what we did and why we need to be tested for HIV. However, I think nurses or doctors who provide HCT services for youth should be moral and ethical, so they should not look down on or blame us. At least they should keep our information as a secret and not disclose to others."(F19)

A vocational school, male youth told the researcher about his experience with HIV testing and how he was not satisfied with the provider.

"At that time, I got sick. My mom brought me to hospital. I had tonsillitis. After meeting the doctor, we waited for medication and to go back home. Suddenly, my mom asked the doctor to check me for HIV because I had many girlfriends. I could not say anything and doctor didn't say anything to me but she checked my blood without asking me. After that, she told me and my mom that my blood test was negative. That time, fortunately, my HIV status was negative and I didn't have any secrets from my mom. I think that, although my mom asked to check my blood, she should have asked me whether I wanted to test or not and if my blood was positive I don't know how she could have been told. Would the doctor have told me while my mom was there or not?" (M15)

Another high school male youth commented on the provider he met when he used a private HCT clinic with his friend.

"I went to a private clinic with my friend and asked to be checked for HIV status. The provider we met asked us why we wanted to check our HIV status because we were students. What had we done. We were so young! I was so ashamed!" (M18)

Lastly, one youth who had never used HCT services expected a youth-friendly provider to build confidence for youth getting HIV testing, not blaming their sexual behaviors and encouraging them, particularly if their blood results are positive.

"Providers should give youth the confidence to be tested for HIV. If the results are positive, the provider should tell them to not give up. Ask them if they are ready to test before testing for HIV, "Are you sure you want to be tested for HIV?" Encourage them when their results are positive... "Let's continue to fight and not lose it"...And inform them that HIV can be treated. Although HIV positive results might make them disappear, they might harbor suicidal thoughts. We should tell them it might be harder to live, but it's treatable if they adhere to the doctor's treatment regimen... Give them this advice... It's better...." (M1)

"... To advise them, like encourage them to survive ... If they did not receive advice, they might not know who can counsel... This way, providers can help them refrain from self-harm or suicide. Providers might give them information that it's treatable... they should be concerned about their health, adhere to taking medicine and perform proper self-care because this disease is not treated easily..." (M8)