

## CHAPTER 9

### LIST OF PUBLICATION FROM THIS RESEARCH

Sl. No.	Title	Journal/Conference	Authors
1	Yogic Ga apati Puja – A promising option for HIV/AIDS – Poster presentation	International Conference on Yoga Naturopathy and AROGYA Expo-2012, Feb. 9-13, 2012, Bengaluru	B. P. Hari Chandra
2	Pa cako as and Ga apati – Annamaya ko a and its role in managing the immune system with special reference to HIV/AIDS	International Journal of Research – Grant lay h, Vol.5, No.7s, 262-269. <a href="https://doi.org/10.5281/zenodo.836969">https://doi.org/10.5281/zenodo.836969</a>	B. P. Hari Chandra, Dr. Ramesh Mavathur
3	Effect of Yoga on Immune Parameters, Cognitive Functions and Quality of Life among HIV-positive Children/Adolescents: A Pilot Study	International Journal of Yoga, Vol.12, No.2, May-August 2019, pp 132-138, DOI: 10.4103/ijoy.IJOY_51_18	B. P. Hari Chandra, Dr. Ramesh Mavathur, Dr. H R Nagendra
4	HIV/AIDS: A relook into the approach	International Journal of Yoga-PPP, Vol. 7, No.1, Jan-June 2019, DOI: 10.4103/ijny.ijoyppp_8_18	B. P. Hari Chandra, Dr. Ramesh Mavathur, Dr. H R Nagendra

**Note:** Full papers enclosed at the end of the thesis



## Appendix I ABOUT THE REHABILITATION CENTERS

### RC1: Snehad n (Sneha Care Home)



Sneha Care Home and Shining Star School is a residential program for the children infected with HIV, belongs to Sneha Charitable Trust, owned by the Camillians. There are 100 children within the age group of 4 to 12 under the program. Most of these children have lost their parents or parent and their normal growth and development seem to be difficult in their home or community.

Sneha Care Home as an intervention model is an attempt to create an environment that would help children infected with HIV to grow and become beautiful human beings, who would live their lives joyfully and responsibly, by comprehensively addressing their multifaceted needs. The model is evolved to meet the long term needs of these children, which aims at future development. Value-based formation, which is a key feature of the model, will enable responsible living for these children and will reintegrate the children meaningfully to the larger society

Sneha Care Home has the vision to endeavor to produce successful, responsible, confident and creative human beings by creating a happy, caring and stimulating environment where values blend with academics, where skill development is aptitude-based and where special needs are addressed through individual attention.

Sneha Care Home works with a mission to ensure the quality of life for the CLHIV by comprehensively addressing their real and felt needs on health, education and psycho-social support.

Sneha Care Home has a motto to inspire buds to bloom and blossom.

### **RC2: Amma Mane, Mysuru**



Amma mane (Mother's home) is a rehabilitation center for children living with HIV. It is a part of Anantha Bharatha Charitable Trust (ABCT). The trust took a significant first step toward fulfillment of its objective on May 26, 2014, also the day of its inception. It adopted HIV-infected orphan children, thereby igniting their hope to succeed in life as also enabling them to resist strong societal prejudices against AIDS patients. The brainchild of SA

Ramadass, ABCT has introduced a unique program **Hug & Adopt** which encourages interested families to adopt a distressed child with a hug. Isn't it wonderful to take a stigmatized child into one's arms and shower it with love and lend it protection? What transformation a little gesture from you can have on a loveless child? The lives of the children ABCT has taken into its fold have seen a turnaround with due care and attention being given to them. What about those thousands who are abandoned by the very people that gave them birth? What about children whose parents succumbed to the very disease that they inherited?

While adoption is one way of giving a new lease of life to such children, ABCT has for you various other programs by which you can still bring a smile on their faces. For instance, you can be a parent to the children for a day. You come, cuddle, play, sing, dance, narrate a story or hear them narrate one, find the positive energies flow either way. It's within you to create a festive atmosphere for these wronged little angels, even if for a day.

## Appendix II SAMPLE SIZE CALCULATION

Effect size and subgroup size was calculated considering the primary variable, the CD4 cell counting with the help of the paper dealing with the effect of mindfulness-based stress reduction on CD4+ T Lymphocyte counts(Creswell *et al.*, 2009). The effect size is calculated using the formula,

$$\text{Effect size} = \text{Size of the effect} / \text{Variance}$$

$$\text{Size of the effect} = (\bar{X}_1 - \bar{X}_2)$$

Variance is calculated using the formula,

$$S_p = \frac{\sqrt{(S_1^2(n_1 - 1) + (S_2^2(n_2 - 1)))}{(n_1 + n_2 - 2)^{1/2}}$$

The calculations are done with the help of an excel sheet.

Variable	Post data: Intervention group			Post data: Control group			Size of the effect	Pooled variance	Effect Size
	$\bar{X}_1$	$n_1$	$S_1$	$\bar{X}_2$	$n_2$	$S_2$			
CD4 Cell count	628	33	52	572	15	71	56	58.44	0.9582

### Sub Group size calculation

The subgroup size calculations are done using the software GPower 3.1. The following assumptions are made for the calculations

$$r = 0.05 \quad 1-\alpha = 0.80 \quad \text{Tails: Two tails}$$

The results of the calculations are tabulated in the table below.

Variable	Effect Size	Subgroup size	Total No. of subjects	Actual power
CD4 Cell count	0.9582	19	38	0.89

From the above results, it is seen that the number of subjects required for the study, would be 38.

## Appendix III INFORMED CONSENT FORM

TO BE FILLED BY THE IN-CHARGE OF THE REHABILITATION CENTRE WHO IS THE LEGAL  
GUARDIAN OF THE MINOR AGE GROUP CHILDREN PARTICIPATING IN THE STUDY

### INFORMED CONSENT FORM

**Title:**

**Role of Integrated Approach of Yoga Therapy in Modifying Immune Responses,  
Quality Of Life and Cognitive Functions in HIV Seropositive Individuals**

**Information to the participants:**

I understand that you are running a rehabilitation centre to take care of children with HIV infection. I am conducting a study to determine the role of 'Integrated Approach of Yoga Therapy' in modifying immune responses, quality of life and cognitive functions in HIV Seropositive individuals. This study is conducted as part of the PhD (Yoga) programme offered by Swami Vivekananda Yoga Anusandhana Samsthana (SVYASA). The study will be conducted by dividing the participants in two groups. The participants' data will be initially screened for our inclusion and exclusion criterion, and those found eligible will be randomly allocated into one of the following groups.

1. Group ONE: Intervention (Yoga) group:
2. Group TWO: Control group

Your ward may be randomly allotted to any one of the above two groups. Participants in Group ONE will be provided yoga intervention for five months duration with 100 minutes per day, 5 days a week and shall maintain a diary to make suitable notes and changes. Participants in Group TWO shall involve in routine exercises and walking during the study period and co-operate in providing pre, intermediate and post data.

The data collected from your ward will include:

- General counseling on food intake, .....; Frequency: Fortnightly
- Seeking answers for the questions in the questionnaire for General Health, Perceived Stress, Quality of Life, Cognitive Functions: These would take around 45 minutes. Frequency: Monthly

- Biological tests involving drawing of blood sample of about 15-20 ml for determining CD4, CD8 cell counts and gene expression. Frequency: Once the beginning, at the end of 3 months of intervention and once at the end of the study.
- Biological tests involving drawing of blood sample of about 15-20 ml for determining viral load. Frequency: Once the beginning and once at the end of the study.
- GDV test which involves use of GDV instrument, which is basically a telemetry test, to check the energy levels and immune parameters of your ward. The test takes 3 minutes. Frequency: Once the beginning, at the end of 3 months of intervention and once at the end of the study.
- Nadi Tarangini tests which is basically a nadi test to check the nadi behavior indicating vata, pitta and kapha parameter to ascertain the immune functioning. The test takes approx. 3 minutes. Frequency: Once the beginning, once at the end of 3 months of intervention and once at the end of the study.

As well understood, the procedures for the above are standard and there are no known health risk on your ward. Please note that you have a right to refuse to give your consent, and this is not compulsory. Please also note that the information you are going to divulge will be kept with utmost confidentiality.

**Undertaking by the Principal Investigator:**

Your consent in the above study is sought. You have a right to refuse consent without giving any reason. Without any prejudice, I undertake to maintain complete confidentiality regarding the information obtained from your ward during the course of the study. If you have any doubts about the study, please feel free to clarify the same. Even during the study you are free to contact the investigator for clarifications if you so desire. The phone number of the investigator is given below:

Investigator Name	Phone Number
Dr. Ramesh M.N.	9611161845

**Signature of the Principal Investigator**

Dr. RAMESH M.N.

Associate Professor, SVYASA

Date: 2.11.13

Place: Bangalore




### CONSENT

I have been informed about the procedures of the study conducted on the children in my home care center. The possible risks too have been explained to me as stated in the information. I have understood that I have the right to refuse my consent or withdraw it any time during the study without adversely affecting my health. I am aware that by subjecting to this investigation, I will have to give time to assessments by the investigating team and that these assessments do not interfere with the benefits.

I, Fr. Vince Mathew, the undersigned, give my consent to allow the wards in my home care center, to be participants of this investigation/study program.

Date: 2/11/2013  
Place: Snehadaan

  
**Signature of the Guardian**  
(Name and Address)

**DIRECTOR**  
**SNEHA CARE HOME &**  
**SHINING STAR SCHOOL**  
Carmelaram Post, Bangalore - 35

## Appendix IV ETHICS COMMITTEE CLEARANCE



### स्वामी विवेकानन्द योग अनुसंधान संस्थान Swami Vivekananda Yoga Anusandhāna Samsthāna

(Declared as Deemed-to-be University under Section 3 of the UGC Act, 1956)

Ekmath Bhavan, # 19, Gavipuram Circle, Kempegowda Nagar, Bangalore - 560 019

Ph: 080 - 2661 2669, Telefax: 080 - 2660 8645

E-mail: svyasa@svyasa.org Website: www.svyasa.org

RES/IEC-SVYASA/15/2013

November 6, 2013

To,

Dr. Ramesh M.N.,  
Associate Professor  
S-VYASA,  
Bangalore

Reference:

"Role of Integrated Approach of Yoga Therapy in Modifying Immune Responses, Quality Of Life and Cognitive Functions in HIV Seropositive Individuals"; Committee Approval of the Above Mentioned Study

Dear Dr. Ramesh M.N.,

We have received from you 6 copies of each of following study related documents vide your letter dated October 5, 2012

1	Project Proposal
2	Informed consent form

Ethics committee meeting was held on October 20, 2013 at 10 am to 1:00 pm at Ekmath Bhavan, Bangalore. Above documents were examined and discussed in the meeting. After due consideration, the committee has decided to approve the conduct of the aforementioned study at Bangalore.

APPROVED  
*Neelasth*  
INSTITUTIONAL ETHICS COMMITTEE  
SVYASA, BANGALORE



स्वामी विवेकानन्द योग अनुसंधान संस्थान  
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Ph: 080 - 2661 2669, Telefax: 080 - 2660 8645

E-mail: svyasa@svyasa.org Website: www.svyasa.org

This is to confirm that neither Dr. Ramesh M N nor any study staff participating in this study were involved in the voting procedures and decision making for these study documents.

The Institutional Review Board / Independent Ethics Committee are expected to be informed about the progress of the study / any changes in the protocol and patient information / informed consent. The investigators are also expected to submit a copy of the final report to IEC for records.

This approval is valid up to the completion of the study at this site.

Please submit to the EC the status report of the study as per EC SOPs.

The EC is organized & operates according to the requirements of ICH - GCP, Indian Council of Medical Research guidelines & Schedule Y.

Best Wishes,

*R.S. Venkatesh*  
R.S. Venkatesh,  
Member Secretary,  
Institutional Ethics Committee,  
S-VYASA, Bangalore.

Received  
RPS  
8/11/13

## Appendix VSOCIO-DEMOGRAPHIC DATA SHEET

Participant No.:			
Name of the Participant:			
Date of Birth :			
Gender:			
Class			
Languages known.	EnglishOthers (specify) _____		
Parental Status		<b>HIV Status</b>	<b>Living Status</b>
	Father		
	Mother		
Height			
Weight			
Duration and Year of joining the Rehabilitation Center			
Postal address:			
Are you indulging in any other activities to take care of your health?	Yes/ No? _____ If Yes, specify		
I am able to carry on with normal activitiesmyself. No special care is needed	Yes/ No? _____		
General health status			
Blood parameters		<b>Count</b>	<b>Date</b>
	<b>CD4</b>		
	<b>CD3</b>		
	<b>Others (as available)</b>		

## Appendix VI QUESTIONNAIRES/ASSESSMENT INSTRUMENTS

### APPENDIX VI.1 QUALITY OF LIFE QUESTIONNAIRE

#### PedsQL QOL4.0 Questionnaire

PedsQL 2

In the past **ONE month**, how much of a **problem** has this been for you ...

<b>ABOUT MY HEALTH AND ACTIVITIES (problems with...)</b>	Never	Almost Never	Sometimes	Often	Almost Always
1. It is hard for me to walk more than one block	0	1	2	3	4
2. It is hard for me to run	0	1	2	3	4
3. It is hard for me to do sports activity or exercise	0	1	2	3	4
4. It is hard for me to lift something heavy	0	1	2	3	4
5. It is hard for me to take a bath or shower by myself	0	1	2	3	4
6. It is hard for me to do chores around the house	0	1	2	3	4
7. I hurt or ache	0	1	2	3	4
8. I have low energy	0	1	2	3	4

<b>ABOUT MY FEELINGS (problems with...)</b>	Never	Almost Never	Sometimes	Often	Almost Always
1. I feel afraid or scared	0	1	2	3	4
2. I feel sad or blue	0	1	2	3	4
3. I feel angry	0	1	2	3	4
4. I have trouble sleeping	0	1	2	3	4
5. I worry about what will happen to me	0	1	2	3	4

<b>HOW I GET ALONG WITH OTHERS (problems with...)</b>	Never	Almost Never	Sometimes	Often	Almost Always
1. I have trouble getting along with other kids	0	1	2	3	4
2. Other kids do not want to be my friend	0	1	2	3	4
3. Other kids tease me	0	1	2	3	4
4. I cannot do things that other kids my age can do	0	1	2	3	4
5. It is hard to keep up when I play with other kids	0	1	2	3	4

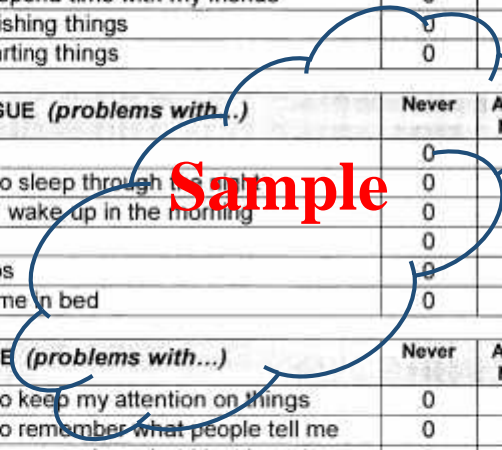
<b>ABOUT SCHOOL (problems with...)</b>	Never	Almost Never	Sometimes	Often	Almost Always
1. It is hard to pay attention in class	0	1	2	3	4
2. I forget things	0	1	2	3	4
3. I have trouble keeping up with my schoolwork	0	1	2	3	4
4. I miss school because of not feeling well	0	1	2	3	4
5. I miss school to go to the doctor or hospital	0	1	2	3	4

In the past **ONE month**, how much of a **problem** has this been for you ...

<b>GENERAL FATIGUE (problems with...)</b>	Never	Almost Never	Some-times	Often	Almost Always
1. I feel tired	0	1	2	3	4
2. I feel physically weak (not strong)	0	1	2	3	4
3. I feel too tired to do things that I like to do	0	1	2	3	4
4. I feel too tired to spend time with my friends	0	1	2	3	4
5. I have trouble finishing things	0	1	2	3	4
6. I have trouble starting things	0	1	2	3	4

<b>SLEEP/REST FATIGUE (problems with...)</b>	Never	Almost Never	Some-times	Often	Almost Always
1. I sleep a lot	0	1	2	3	4
2. It is hard for me to sleep through the night	0	1	2	3	4
3. I feel tired when I wake up in the morning	0	1	2	3	4
4. I rest a lot	0	1	2	3	4
5. I take a lot of naps	0	1	2	3	4
6. I spend a lot of time in bed	0	1	2	3	4

<b>COGNITIVE FATIGUE (problems with...)</b>	Never	Almost Never	Some-times	Often	Almost Always
1. It is hard for me to keep my attention on things	0	1	2	3	4
2. It is hard for me to remember what people tell me	0	1	2	3	4
3. It is hard for me to remember what I just heard	0	1	2	3	4
4. It is hard for me to think quickly	0	1	2	3	4
5. I have trouble remembering what I was just thinking	0	1	2	3	4
6. I have trouble remembering more than one thing at a time	0	1	2	3	4



# CDI2 Self-Report Questionnaire

The DATA Group of Companies 878386



CD200

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By Maria Kovacs, Ph.D.

## CDI2 SELF-REPORT

Name/ID: \_\_\_\_\_ Date of Birth: \_\_\_\_\_  
 Age: \_\_\_\_\_ Grade: \_\_\_\_\_ Sex: Male Female  
Circle one Today's Date: \_\_\_\_\_  
Year Month Day

Kids sometimes have different feelings and ideas.

This form lists the feelings and ideas in groups. From each group of three sentences, pick **one** sentence that describes you best for the **past two weeks**. After you pick a sentence from the first group, go on to the next group.

There is no right or wrong answer, just pick the sentence that best describes the way you have been recently. Put a mark like this  next to your answer. Put the mark in the box next to the sentence that you pick.

Here is an example of how this form works. Try it. Put a mark next to the sentence that describes you best.

**Example:**

- I read books all the time.
- I read books once in a while.
- I never read books.

**Sample**

Remember, for each group, pick out the sentence that describes you best in the PAST TWO WEEKS

<p><b>Item 1</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> I am sad once in a while.</li> <li><input type="checkbox"/> I am sad many times.</li> <li><input type="checkbox"/> I am sad all the time.</li> </ul>	<p><b>Item 6</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> I hate myself.</li> <li><input type="checkbox"/> I do not like myself.</li> <li><input type="checkbox"/> I like myself.</li> </ul>
<p><b>Item 2</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Nothing will ever work out for me.</li> <li><input type="checkbox"/> I am not sure if things will work out for me.</li> <li><input type="checkbox"/> Things will work out for me O.K.</li> </ul>	<p><b>Item 7</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> All bad things are my fault.</li> <li><input type="checkbox"/> Many bad things are my fault.</li> <li><input type="checkbox"/> Bad things are not usually my fault.</li> </ul>
<p><b>Item 3</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> I do most things O.K.</li> <li><input type="checkbox"/> I do many things wrong.</li> <li><input type="checkbox"/> I do everything wrong.</li> </ul>	<p><b>Item 8</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> I do not think about killing myself.</li> <li><input type="checkbox"/> I think about killing myself but would not do it.</li> <li><input type="checkbox"/> I want to kill myself.</li> </ul>
<p><b>Item 4</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> I have fun in many things.</li> <li><input type="checkbox"/> I have fun in some things.</li> <li><input type="checkbox"/> Nothing is fun at all.</li> </ul>	<p><b>Item 9</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> I feel like crying every day.</li> <li><input type="checkbox"/> I feel like crying many days.</li> <li><input type="checkbox"/> I feel like crying once in a while.</li> </ul>
<p><b>Item 5</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> I am important to my family.</li> <li><input type="checkbox"/> I am not sure if I am important to my family.</li> <li><input type="checkbox"/> My family is better off without me.</li> </ul>	<p><b>Item 10</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> I feel cranky all the time.</li> <li><input type="checkbox"/> I feel cranky many times.</li> <li><input type="checkbox"/> I am almost never cranky.</li> </ul>



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...continued from the front page.

Remember, for each group, pick out the sentence that describes you best in the PAST TWO WEEKS.	
<p><b>Item 11</b></p> <input type="checkbox"/> I like being with people. <input type="checkbox"/> I do not like being with people many times. <input type="checkbox"/> I do not want to be with people at all.	<p><b>Item 20</b></p> <input type="checkbox"/> I never have fun at school. <input type="checkbox"/> I have fun at school only once in a while. <input type="checkbox"/> I have fun at school many times.
<p><b>Item 12</b></p> <input type="checkbox"/> I cannot make up my mind about things. <input type="checkbox"/> It is hard to make up my mind about things. <input type="checkbox"/> I make up my mind about things easily.	<p><b>Item 21</b></p> <input type="checkbox"/> I have plenty of friends. <input type="checkbox"/> I have some friends but I wish I had more. <input type="checkbox"/> I do not have any friends.
<p><b>Item 13</b></p> <input type="checkbox"/> I look O.K. <input type="checkbox"/> There are some bad things about my looks <input type="checkbox"/> I look ugly.	<p><b>Item 22</b></p> <input type="checkbox"/> My schoolwork is alright. <input type="checkbox"/> My schoolwork is not as good as before. <input type="checkbox"/> I do very badly in subjects I used to be good in.
<p><b>Item 14</b></p> <input type="checkbox"/> I have to push myself all the time to do my schoolwork. <input type="checkbox"/> I have to push myself many times to do my schoolwork. <input type="checkbox"/> Doing schoolwork is not a big problem.	<p><b>Item 23</b></p> <input type="checkbox"/> I can never be as good as other kids. <input type="checkbox"/> I can be as good as other kids if I want to. <input type="checkbox"/> I am just as good as other kids.
<p><b>Item 15</b></p> <input type="checkbox"/> I have trouble sleeping every night. <input type="checkbox"/> I have trouble sleeping many nights. <input type="checkbox"/> I sleep pretty well.	<p><b>Item 24</b></p> <input type="checkbox"/> Nobody really loves me. <input type="checkbox"/> I am not sure if anybody loves me. <input type="checkbox"/> I am sure that somebody loves me.
<p><b>Item 16</b></p> <input type="checkbox"/> I am tired once in a while. <input type="checkbox"/> I am tired many days. <input type="checkbox"/> I am tired all the time.	<p><b>Item 25</b></p> <input type="checkbox"/> It is easy for me to get along with friends. <input type="checkbox"/> I get into arguments with friends many times. <input type="checkbox"/> I get into arguments with friends all the time.
<p><b>Item 17</b></p> <input type="checkbox"/> Most days I do not feel like eating. <input type="checkbox"/> Many days I do not feel like eating. <input type="checkbox"/> I eat pretty well.	<p><b>Item 26</b></p> <input type="checkbox"/> I fall asleep during the day all the time. <input type="checkbox"/> I fall asleep during the day many times. <input type="checkbox"/> I almost never fall asleep during the day.
<p><b>Item 18</b></p> <input type="checkbox"/> I do not worry about aches and pains. <input type="checkbox"/> I worry about aches and pains many times. <input type="checkbox"/> I worry about aches and pains all the time.	<p><b>Item 27</b></p> <input type="checkbox"/> Most days I feel like I can't stop eating. <input type="checkbox"/> Many days I feel like I can't stop eating. <input type="checkbox"/> My eating is O.K.
<p><b>Item 19</b></p> <input type="checkbox"/> I do not feel alone. <input type="checkbox"/> I feel alone many times <input type="checkbox"/> I feel alone all the time.	<p><b>Item 28</b></p> <input type="checkbox"/> It is easy for me to remember things. <input type="checkbox"/> It is a little hard to remember things. <input type="checkbox"/> It is very hard to remember things.

Sample



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## APPENDIX VI.2 COGNITIVE TESTS QUESTIONNAIRE

### Digit Span Forward Backward Test sheet



**DISCONTINUE RULE:**  
Any error on any trial of any item  
For both Digits Forward & Backward. Administer  
both trials of each item even if Trial 1 is passed.



**RECORDING:**  
All responses  
verbatim.



**SCORING RULE:**  
0-1 pt. for each response.

#### Digits Forward

	Item/Trial	Response	Score 0 or 1
1.	Trial 1	1 - 7	
	Trial 2	6 - 3	
2.	Trial 1	5 - 8 - 2	
	Trial 2	6 - 9 - 4	
3.	Trial 1	6 - 4 - 3 - 9	
	Trial 2	7 - 2 - 8 - 6	
4.	Trial 1	4 - 2 - 7 - 3 - 1	
	Trial 2	7 - 5 - 8 - 3 - 6	
5.	Trial 1	6 - 1 - 9 - 4 - 7 - 3	
	Trial 2	3 - 9 - 2 - 4 - 8 - 7	
6.	Trial 1	5 - 9 - 1 - 7 - 4 - 2 - 8	
	Trial 2	4 - 1 - 7 - 9 - 3 - 8 - 6	
7.	Trial 1	5 - 8 - 1 - 9 - 2 - 6 - 4 - 7	
	Trial 2	3 - 8 - 2 - 9 - 5 - 1 - 7 - 4	
8.	Trial 1	2 - 7 - 5 - 8 - 6 - 2 - 5 - 8 - 4	
	Trial 2	7 - 1 - 3 - 9 - 4 - 2 - 5 - 6 - 8	

Forward Total Score  
Range = 0 to 16

#### Digits Backward

	Item/Trial	(Correct Response)/Response	Score 0 or 1
1.	Trial 1	2 - 4 (4 - 2)	
	Trial 2	5 - 7 (7 - 5)	
2.	Trial 1	6 - 2 - 9 (9 - 2 - 6)	
	Trial 2	4 - 1 - 8 (8 - 1 - 4)	
3.	Trial 1	3 - 2 - 7 - 6 (9 - 7 - 2 - 3)	
	Trial 2	4 - 9 - 6 - 8 (8 - 6 - 9 - 4)	
4.	Trial 1	1 - 5 - 2 - 8 - 6 (6 - 8 - 2 - 5 - 1)	
	Trial 2	6 - 1 - 8 - 4 - 3 (3 - 4 - 8 - 1 - 6)	
5.	Trial 1	5 - 3 - 9 - 4 - 1 - 8 (8 - 1 - 4 - 9 - 3 - 5)	
	Trial 2	7 - 2 - 4 - 8 - 5 - 6 (6 - 5 - 8 - 4 - 2 - 7)	
6.	Trial 1	8 - 1 - 2 - 9 - 3 - 6 - 5 (5 - 6 - 3 - 9 - 2 - 1 - 8)	
	Trial 2	4 - 7 - 3 - 9 - 1 - 2 - 8 (8 - 2 - 1 - 9 - 3 - 7 - 4)	
7.	Trial 1	9 - 4 - 3 - 7 - 6 - 2 - 5 - 8 (8 - 5 - 2 - 6 - 7 - 3 - 4 - 9)	
	Trial 2	7 - 2 - 8 - 1 - 9 - 6 - 5 - 3 (3 - 5 - 6 - 9 - 1 - 8 - 2 - 7)	

Backward Total Score  
Range = 0 to 14

Total Score  
Range = 0 to 30

(Sum Forward Total Score & Backward Total Score)

Sample

**Symbol Digit Modalities Test sheet**

(Sample lines (3 of 22))

**KEY**

⊂	÷	┌	Γ	└	>	+	⊃	÷
1	2	3	4	5	6	7	8	9

⊂	└	÷	⊂	┌	>	÷	Γ	⊂	>	÷	⊂	>	⊂	÷

Γ	>	⊂	÷	└	>	┌	Γ	⊂	÷	>	÷	Γ	┌	⊃

Γ	└	+	⊃	⊂	┌	+	Γ	⊃	└	÷	÷	┌	Γ	+

**Six Letter Cancellation Test sheet**

(Sample lines (3 of 22))

**Instructions:**

1. Search out the target letters given below and cancel them by slash (/).
2. Cancel as many as possible within the given time.
3. Start and stop only when told.

**Target Letters : J, T, K, M, U, F**

---

J G Y L S E T B L U V G K H A W U J M K R B  
X N O D F C K N E H W Z L J S D Q L N H U O  
U K W A I M P G Q X M F Y B I R X G F P J K  
Z V B H J S Y D K O S Q T M P O E I A T L E  
T L Y R O Z L F A U I N Z G W T J K D R Y A

## Stroop test sheet

(Sample lines (6 of 20))

Stroop word test (sample lines)				
RED	BLUE	GREEN	RED	BLUE
GREEN	GREEN	RED	BLUE	GREEN
BLUE	RED	BLUE	GREEN	RED
GREEN	BLUE	RED	RED	BLUE
RED	RED	GREEN	BLUE	GREEN
BLUE	GREEN	BLUE	GREEN	RED

Stroop color test (sample lines)				
XXXX	XXXX	XXXX	XXXX	XXXX
XXXX	XXXX	XXXX	XXXX	XXXX
XXXX	XXXX	XXXX	XXXX	XXXX
XXXX	XXXX	XXXX	XXXX	XXXX
XXXX	XXXX	XXXX	XXXX	XXXX
XXXX	XXXX	XXXX	XXXX	XXXX

Stroop color word test (sample lines)				
RED	BLUE	GREEN	RED	BLUE
GREEN	GREEN	RED	BLUE	GREEN
BLUE	RED	BLUE	GREEN	RED
GREEN	BLUE	RED	RED	BLUE
RED	RED	GREEN	BLUE	GREEN
BLUE	GREEN	BLUE	GREEN	RED

## Appendix VII    CDI question-wise average scores

(With reference to Study TWO, section 6.2)

CDI-Question	Pre	Post
CDI_1	0.61	0.50
CDI_2	1.89	1.33
CDI_3	0.50	0.50
CDI_4	0.72	0.33
CDI_5	0.44	0.72
CDI_6	1.83	1.83
CDI_7	1.72	1.33
CDI_8	0.00	0.39
CDI_9	2.00	1.56
CDI_10	1.11	1.11
CDI_11	0.00	0.17
CDI_12	1.94	1.28
CDI_13	0.06	0.39
CDI_14	1.06	1.00

CDI-Question	Pre	Post
CDI_15	1.28	1.67
CDI_16	0.50	0.11
CDI_17	1.33	1.39
CDI_18	0.56	0.67
CDI_19	0.56	0.67
CDI_20	1.89	1.50
CDI_21	0.39	0.28
CDI_22	0.00	0.44
CDI_23	2.00	1.28
CDI_24	2.00	1.72
CDI_25	0.39	0.28
CDI_26	1.00	0.72
CDI_27	1.89	1.67
CDI_28	0.89	0.72

CDI-Question*	Pre	Post
CDI_2r*	0.11	0.67
CDI_4r	1.28	1.67
CDI_6r	0.17	0.17
CDI_7r	0.28	0.67
CDI_8r	2.00	1.61
CDI_9r	0.00	0.44
CDI_10r	0.89	0.89
CDI_11r	2.00	1.83
CDI_12r	0.06	0.76
CDI_13r	1.94	1.61
CDI_14r	0.94	1.00
CDI_15r	0.72	0.33
CDI_16r	1.50	1.89
CDI_17r	0.67	0.61
CDI_20r	0.11	0.50
CDI_23r	0.00	0.72
CDI_24r	0.00	0.28
CDI_26r	1.00	1.28
CDI_27r	0.11	0.33

\* r = reverse scoring values

## Appendix VIII RAW DATA

### APPENDIX VIII.1 STUDY ONE

#### Basic data

Sl. No.	PID	Name*	Gender	Age (years)
1	S01	AKA	Male	9.67
2	S02	ALW	Female	10.92
3	S03	ANI	Male	7.77
4	S04	ANJ	Male	11.86
5	S05	ARP	Male	8.99
6	S06	BHA	Female	7.58
7	S07	DAR	Male	11.55
8	S08	DHA	Male	12.08
9	S09	DIV	Female	8.87
10	S10	KAR	Male	11.01
11	S11	MEG	Female	9.68
12	S12	NIT	Male	11.81
13	S13	PRA	Male	11.00
14	S14	PRE	Male	9.14
15	S15	PRI	Female	12.86
16	S16	RAV	Male	8.85
17	S17	SAN	Male	10.11
18	S18	SAN	Male	12.51
19	S19	SAN	Male	11.81
20	S20	SHR	Female	10.04
21	S21	SOU	Female	10.09
22	S22	SUH	Male	9.58
23	S23	SUH	Female	11.14
24	S24	VAI	Female	9.02
25	S25	VAS	Male	9.70
26	S26	VIS	Male	11.67
27	S27	YES	Female	12.48
28	S28	YES	Female	9.69
29	S29	AIS	Female	13.44
30	S30	ANN	Female	10.65
31	S31	ABH	Male	9.75
32	S32	MAL	Female	9.55
33	S33	NAN	Female	8.43
34	S34	NAG	Male	12.06
35	S35	PRA	Male	8.67
36	S36	POO	Female	10.86
37	S37	SUN	Male	12.55
38	S38	SID	Male	11.43

Sl. No.	PID	Name*	Gender	Age (years)
39	S39	SHE	Male	11.53
40	S40	SRI	Female	9.10
41	S41	UME	Male	9.72
42	S42	VIN	Male	11.86
43	S43	VIJ	Male	12.82
44	S44	RAH	Male	8.55
45	S45	CHE	Male	10.01
46	S46	LAK	Female	9.44
47	S47	MAL	Male	9.24
48	S49	PRI	Female	12.01
49	S50	SAH	Female	10.83
50	S51	YOG	Male	10.81
51	S52	VEE	Male	10.44
52	S53	JYO	Female	12.80
53	S54	CHA	Female	9.90
54	S55	MON	Female	10.42
55	S56	ASH	Female	11.86
56	S57	JAY	Female	10.86
57	S58	AMB	Female	9.43
58	S59	AMA	Male	9.86
59	S60	ZUN	Female	9.86
60	S61	VEE	Female	13.85
61	S62	GAY	Female	10.86
62	S63	MAN	Female	9.50
63	S66	SUD	Male	8.85
64	S67	LAK	Male	12.10
65	S68	PRA	Male	9.40
66	S69	SAT	Male	10.86
67	S70	BEE	Male	9.10
68	S71	YOG	Female	9.51
69	S72	SHA	Male	9.02
70	S73	RAM	Male	9.33
71	S74	SAC	Male	8.85
72	S75	NIR	Female	9.48
73	S77	ADA	Male	10.76
* First 3 letters of the name				

## Socio-demographic data

PID	DOB	Group	Gender	HIV+ since	Father Life status	Father HIV status	Mother Life status	Mother HIV status
S01	8-Mar-04	Control	Male	8-Mar-04	Dead	HIV	NA	HIV
S02	11-Dec-02	Control	Female	11-Dec-02	Dead	HIV	Dead	HIV
S03	1-Feb-06	Yoga	Male	16-Sep-08	Dead	HIV	Dead	HIV
S04	1-Jan-02	Control	Male	29-Mar-08	NA	NI	NA	NI
S05	13-Nov-04	Control	Male	9-Nov-06	Dead	HIV	NA	HIV
S06	12-Apr-06	Yoga	Female	12-Apr-06	NA	HIV	NA	HIV
S07	22-Apr-02	Control	Male	24-May-05	Dead	HIV	NA	HIV
S08	10-Oct-01	Yoga	Male	11-Aug-08	Dead	HIV	Dead	HIV
S09	25-Dec-04	Yoga	Female	22-Aug-08	Dead	HIV	NA	HIV
S10	6-Nov-02	Control	Male	20-Jun-09	NA	HIV	NA	HIV
S11	5-Mar-04	Control	Female	10-Dec-08	Dead	HIV	Dead	HIV
S12	18-Jan-02	Yoga	Male	8-Jun-09	NA	HIV	NA	HIV
S13	10-Nov-02	Control	Male	20-Jul-07	Dead	HIV	NA	HIV
S14	18-Sep-04	Control	Male	19-Oct-07	Dead	HIV	NA	HIV
SA5	1-Jan-01	Control	Female	1-Jan-01	NA	HIV	NA	HIV
S16	1-Jan-05	Control	Male	1-Jan-05	Dead	HIV	NA	HIV
S17	1-Oct-03	Yoga	Male	28-Jun-14	Dead	HIV	Dead	HIV
S18	9-May-01	Yoga	Male	9-May-01	Dead	HIV	NA	HIV
S19	20-Jan-02	Control	Male	20-Jan-12	NA	HIV	NA	HIV
S20	27-Oct-03	Control	Female	29-Nov-08	NA	HIV	NA	HIV
S21	9-Oct-03	Yoga	Female	9-Oct-13	Dead	HIV	NA	HIV
S22	11-Apr-04	Control	Male	NA	NA	NI	NA	HIV
S23	21-Sep-02	Yoga	Female	17-Apr-09	NA	HIV	NA	HIV
S24	1-Nov-04	Yoga	Female	NA	Dead	HIV	NA	HIV
S25	27-Feb-04	Control	Male	NA	NA	HIV	NA	HIV
S26	10-Mar-02	Yoga	Male	1-Feb-07	NA	HIV	NA	HIV
S27	17-May-01	Yoga	Female	14-Oct-08	Dead	HIV	NA	HIV
S28	2-Mar-04	Yoga	Female	1-Jan-09	Dead	HIV	NA	HIV
S29	2-Jun-00	Control	Female	15-May-07	Dead	HIV	Dead	HIV
S30	18-Mar-03	Control	Female	3-Nov-09	NA	HIV	Dead	HIV
S31	9-Feb-04	Control	Male	27-Aug-08	Dead	HIV	NA	HIV
S32	21-Apr-04	Yoga	Female	1-Sep-08	Dead	HIV	Dead	HIV
S33	4-Jun-05	Control	Female	NA	Dead	HIV	NA	HIV
S34	20-Oct-01	Yoga	Male	NA	NA	NI	NA	NI
S35	11-Mar-05	Yoga	Male	29-Feb-08	NA	NI	NA	NI
A36	1-Jan-03	Control	Female	NA	Dead	HIV	Dead	HIV
A37	24-Apr-01	Yoga	Male	31-May-08	Dead	HIV	NA	NI
S38	5-Jun-02	Yoga	Male	2-Oct-08	NA	HIV	NA	HIV
A39	1-May-02	Yoga	Male	25-Apr-08	Dead	HIV	Dead	HIV
S40	4-Oct-04	Control	Female	6-Jun-08	Dead	HIV	NA	HIV
S41	22-Feb-04	Control	Male	8-Dec-09	NA	HIV	NA	HIV

<b>PID</b>	<b>DOB</b>	<b>Group</b>	<b>Gender</b>	<b>HIV+ since</b>	<b>Father Life status</b>	<b>Father HIV status</b>	<b>Mother Life status</b>	<b>Mother HIV status</b>
S42	1-Jan-02	Yoga	Male	3-Jun-10	Dead	HIV	Dead	HIV
S43	15-Jan-01	Yoga	Male	20-Nov-08	Dead	HIV	Dead	HIV
S44	23-Apr-05	Yoga	Male	20-Mar-10	Dead	HIV	Dead	HIV
S45	6-Nov-03	Yoga	Male	27-Jun-07	Dead	HIV	NA	HIV
S46	1-Jun-04	Yoga	Female	15-Jun-11	Dead	HIV	NA	HIV
S47	13-Aug-04	Yoga	Male	NA	NA	HIV	NA	HIV
S49	5-Nov-01	Control	Female	12-Oct-05	Dead	HIV	Dead	HIV
S50	10-Jan-03	Yoga	Female	17-Mar-11	Dead	HIV	NA	HIV
S51	18-Jan-03	Control	Male	14-Jul-10	Dead	HIV	Dead	HIV
S52	1-Jun-03	Yoga	Male	NA	NA	HIV	NA	HIV
S53	22-Jan-01	Control	Female	9-Jun-11	Dead	HIV	Dead	HIV
S54	18-Dec-03	Yoga	Female	8-Apr-11	NA	NI	Dead	HIV
S55	8-Jun-03	Yoga	Female	NA	NA	HIV	NA	HIV
S56	1-Jan-02	Yoga	Female	24-Oct-05	Dead	HIV	NA	HIV
S57	1-Jan-03	Control	Female	1-Jan-10	Dead	HIV	Dead	HIV
S58	4-Jun-04	Control	Female	NA	Dead	HIV	Dead	HIV
S59	1-Jan-04	Yoga	Male	23-Sep-10	Dead	HIV	Dead	HIV
S60	1-Jan-04	Yoga	Female	12-Oct-09	NA	HIV	NA	HIV
S61	6-Jan-00	Control	Female	11-Mar-08	Dead	NI	Dead	NI
S62	1-Jan-03	Control	Female	2-Nov-06	NA	HIV	NA	HIV
S63	12-May-04	Yoga	Female	28-Mar-12	Dead	NA	Dead	NI
S66	1-Jan-05	Yoga	Male	10-Jun-10	Dead	HIV	Dead	HIV
S67	4-Oct-01	Control	Male	25-May-12	NA	NA	NA	HIV
S68	16-Jun-04	Control	Male	7-Apr-10	Dead	HIV	Dead	HIV
S69	1-Jan-03	Yoga	Male	10-Mar-10	NA	HIV	NA	HIV
S70	3-Oct-04	Yoga	Male	28-Apr-08	NA	HIV	NA	HIV
S71	8-May-04	Control	Female	NA	Dead	HIV	NA	HIV
S72	1-Nov-04	Control	Male	7-May-12	NA	HIV	NA	HIV
S73	10-Jul-04	Yoga	Male	12-Jul-07	Dead	HIV	NA	HIV
S74	1-Jan-05	Yoga	Male	NA	Dead	HIV	NA	HIV
S75	16-May-04	Control	Female	NA	Dead	HIV	NA	HIV
S77	4-Feb-03	Control	Male	16-Apr-12	Dead	HIV	Dead	HIV

## Immune parameters data

PID	CD4_Pre	CD3_Pre	CD4_Post	CD3_Post
S01	1721	3923	2009	-
S02	611	2118	1128	3573
S03	736	2735	823	3228
S04	1349	2209	1388	2692
S05	978	3361	986	3459
S06	1296	3550	1135	2358
S07	1243	2317	1144	2099
S08	751	1654	486	1066
S09	798	3668	676	3096
S10	615	1356	-	-
S11	435	1633	444	1160
S12	1068	2683	810	2324
S13	1266	2893	-	-
S14	917	2219	637	1533
SA5	1449	2642	1434	2677
S16	1680	3416	1557	2862
S17	406	2200	965	2339
S18	1072	2775	1111	2430
S19	527	2600	534	2495
S20	348	948	1224	2448
S21	1235		415	1557
S22	906	1742	770	1399
S23	927	2128	1080	2241
S24	1497	3215	1528	3228
S25	666	1769	666	1708
S26	925	1828	529	1223
S27	778	2461	575	2231
S28	1133	2095	950	1848
S29	1371	3342	807	1821
S30	334	1274	366	1467
S31	503	1442	619	1837
S32	1209	3076	1016	2458
S33	920	2343	850	2181
S34	508	1117	1113	2497
S35	1625	2209	1713	2839
A36	848	1990	-	-
A37	468	1828	636	2309

PID	CD4_Pre	CD3_Pre	CD4_Post	CD3_Post
S38	1159	2719	1297	3776
A39	876	1732	971	1959
S40	376	1052	398	1173
S41	453	1620	339	1638
S42	507	1672	985	1906
S43	528	1585	1038	2960
S44	586	1411	538	1244
S45	1418	2600	1425	2814
S46	439	2757	451	1536
S47	1505	3383	1309	3148
S49	1052	1763	986	1805
S50	859	1929	661	1347
S51	1581	3369	1291	2534
S52	932	1944	941	2404
S53	496	1648	482	1794
S54	540	1114	412	978
S55	401	993	-	-
S56	1534	-	860	2197
S57	581	1237	-	-
S58	596	2158	444	2003
S59	481	1759	633	2258
S60	833	1997	610	1625
S61	695	1782	599	1756
S62	320	1386	509	1533
S63	606	2025	536	2050
S66	800	1567	634	1571
S67	1234	2884	1548	3617
S68	949	2573	781	2033
S69	863	2209	143	1304
S70	800	2057	707	1795
S71	730	1656	-	-
S72	391	1669	436	2095
S73	435	2467	580	-
S74	978	2038	1076	2244
S75	625	1364	1025	2292
S77	648	2110	584	1942



## Quality of life data

PID	PQ_h1-pre	PQ_h2-pre	PQ_h3-pre	PQ_h4-pre	PQ_h5-pre	PQ_h6-pre	PQ_h7-pre	PQ_h8-pre	PQ_f1-pre	PQ_f2-pre	PQ_f3-pre	PQ_f4-pre	PQ_f5-pre	PQ_o1-pre	PQ_o2-pre	PQ_o3-pre
S01	0	2	1,3	-	0	2,3,3	-	-	2	3	2	0	1	1	2	0
S02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S03	0	2	3	-	0	0	0	0	0	0	2	2	0	2	0	2
S04	0	0	1	1	0	1	0	0	1	1	2	0	2	0	0	1
S05	0	2	2	2	0	2	1		2	1,2	2		2	2	0	2
S06	1	3	2	2,4	4	0,4	3	0	3,4	0,4	3	4	4	4	0,4	4
S07	0	0	0	0	0	0	1	1	0	2	0	0	2	0	0	0
S08	2	1	0	2	0	2	0	0	1	2	1	0	3	0	0	3
S09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S10	2	4	0	2	0	2	0	1	2	2	2	0	1	1	0	2
S11	0	0	0	2	0	2	1	2	2	2	1	0	1	0	0	1
S12	0	1	1	1	0	1	0	3	0	1	1	0	1	0	1	1
S13	0	0	0	0	0	0	1	0	0	0	2	0	1	0	0	0
S14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S15	0	1	2	1	0	1	2	1	2	2	2	2	2	2	0	1
S16	0	0	0	1	0	0	0	1	2	1	2	0	0	0	0	0
S17	0	0	0	2	0	0	1	0	0	2	2	2	2	2	0	2
S18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S19	2,3		4	4	4	1	4	4	2	2	2	1	4	2	4	2
S20	0	0	4	4	0	4	3	3	3	4	3	0	4	4	4	4
S21	0	0	3	2	0	0	0	0	3	2	2	0	0	0	0	0
S22	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
S23	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
S24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S25	0	2	1	3	0	2	3	2	2	3	2	0	1	1	2	3
S26	0	2	1	3	0	2	3	2	2	3	2	0	1	1	2	3
S27	0	2	0	2	0	2	2	2	2	4	2	0	2	2	0	2
S28	0	0	0	0	0	0,2	0,2	0,2	1	2	1,3	0	-	1,2	1	1
S29	0	2	2	2	0	2	2	1	2	2	2	2	2	2	2	1
S30	0	2	0	2	0	0	0	0	2	2	2	0	4	0	0	0
S31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S33	1	3	2	4	4	4	3	0	3	4	3	2	3	3	3	4
S34	0	2	2	2	0	2	1	2	2	2	2	0	2	2	0	2
S35	0	0	0	0	0	0	0	0	2	2	2	0	2	0	0	2
S36	0	0	2	4	0	0	0	1	0	0	1	0	0	0	0	1
S37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PID	PQ_h1-pre	PQ_h2-pre	PQ_h3-pre	PQ_h4-pre	PQ_h5-pre	PQ_h6-pre	PQ_h7-pre	PQ_h8-pre	PQ_f1-pre	PQ_f2-pre	PQ_f3-pre	PQ_f4-pre	PQ_f5-pre	PQ_o1-pre	PQ_o2-pre	PQ_o3-pre
S38	0	1	0	0	0	0	1	0	0	1	1	0	0	0	0	0
S39	0	0	0	2	0	0	2	0	4	2	2	0	0	2	2	2
S40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S41	2	4	4	4	4	0	0	0	4	4	4	4	4	0	0	0
S42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S46	1	0	2	4	0	4	3	4	3	4	3	0	4	2	1	4
S47	2	2	0	2	3	2	0	0	2	4	0	3	2	0	0,2	
S49	0	0	2	2	0	2	2	0	1	2	0	0	2	0	0	0
S50	0	0	0	2	0	0	2	0	3	0	0	0	1	0	0	0
S51	0	0	0	0	0	0	0	0	2	2	2	0	4	0	0	0
S52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S53	0	2	0	0	0	0	2	2	0	2	0	0	0	2	0	2
S54	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	1
S55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S56	0	1	0	4	0	0	0	3	2	2	1	0	0	0	0	2
S57	0	0	2	2	0	2	2	1	4	2	2	1	2	1	4	1
S58	0	0	0	0	0	0	1	0	0	0	2	0	1	0	0	0
S59	0	2	2	2	0	2	1	0	0	0	0,2	0	0	0	0	0
S60	0	0	1	1	1	1	1	1	1	1	1	0	1	3	1	4
S61	0	2	0	2	0	0	0	0	1	2	2	0	2	0	0	0
S62	0	0	1	2	0	0	0	0	3	2	2	0	1	0	1	2
S63	0	0	0	1	0	1	0	2	4	4	4	0	4	0	1	2
S66	0	1	2	3	0	2	3	0	2	3	2	0	1	1	2	3
S67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S68	2	2	1	2	0	1	1	0	2	2	1	0	3	0	0	0
S69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S70	0	0	0,1	0	0	1	1	1	0	2	0	0	2	0	0	0
S71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S72	0	0	2		2	0	1	3	0	4	3	4	0	3	2	0
S73	0	0	0	0	0	0	0	0	1	2	1	1	2	1	1	1
S74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S75	0	0	0	2	0	0	0	0	3	2	2	0	1	0	0	2
S77	0,1	0,1	0,1	0	0		0	0	1	1	1	0	0	0	0	0

(Continuation of QOL Data)

PID	PQ_o4-pre	PQ_o5-pre	PQ_s1-pre	PQ_s2-pre	PQ_s3-pre	PQ_s4-pre	PQ_s5-pre	PF_g1-pre	PF_g2-pre	PF_g3-pre	PF_g4-pre	PF_g5-pre	PF_g6-pre	PF_s1-pre	PF_s2-pre	PF_s3-pre
S01	4	2	1	2	1	1	-	2	1	1	1	2	-	2	1	1,3
S02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S03	0	0	0	2	0	2	2	2	2	0	0	0	2	2	2	0
S04	0	0	1	1	1	1	1	2	0	1	0	1	1	1	1	1
S05	2	0	0	2	0	1	2	2	2	0	2		1	2		0
S06	0,1,3,4	-	0,1,4	2,3,4	0,2	0,4	2	-	3	1	3	-	-	-	-	-
S07	0	1	0	0	0	2	1	2	0	3	0	2	0	0	0	1
S08	1	0	0	1	1	1	1	0	1	1	0	1	0	0	1	3
S09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S10	3	2	0	1	2	1	2	1	1	2	0	2	1	2	0	2
S11	1	0	0	1	0	1	1	2	1	1	0	1	1	0	2	0
S12	1	0	1	1	1	1	1	1	1	1	0	1	1	0	1	0
S13	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
S14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S15	2	0	3	2	1	2	1	2	2	1	0	2	1	3	2	2
S16	2	0	0	2	0	2	2	0	0	0	0	0	0	0	0	2
S17	0	0	2	2	0	2	2	0	2	0	0	0	2	0	2	2
S18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S19	4	4	4	2	4	4	2	2	0	0	0	0	0	2	0	0
S20	0	4	0	0	2	4	0	4	0	0	4	4	0	3	4	4
S21	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
S22	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
S23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S25	1	1	1	2	1	3	2	2	1	1	1	2	1	2	1	0
S26	1	1	1	2	1	1	2	2	1	1	1	2	1	2	1	1
S27	0	0	2	2	2	2	2	2	2	2	0	0	0	0	2	2
S28	1		0	0	0	0	0	0	0	0	0	0	0	0	0	0
S29	0	1	0	2	1	1	1	2	0	2	0	4	0	0	2	0
S30	0	0	2	2	0	1	1	2	0	0	0	2	0	0	0	0
S31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S32	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
S33	4	3	3	2	3	0	0	2	4	3	1	3	2	4	0	1
S34	2	0	0	2	0	1	2	2	2	0	2	2	1	2	0	0
S35	0	1	0	2	0	2	1	1	1	0	0	1	1	1	0	0
S36	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	2
S37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S38	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0

PID	PQ_o4-pre	PQ_o5-pre	PQ_s1-pre	PQ_s2-pre	PQ_s3-pre	PQ_s4-pre	PQ_s5-pre	PF_g1-pre	PF_g2-pre	PF_g3-pre	PF_g4-pre	PF_g5-pre	PF_g6-pre	PF_s1-pre	PF_s2-pre	PF_s3-pre
S39	0	0	2	2	1	2	2	2	0	2	0	0	2	2	0	1
S40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S41	0	0	0	0	0	4	0	0	0	0	0	0	0	2	3	0
S42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S46	0	3	0	1	2	3	0	3	2	0	0	3	0	2	1	1
S47	2	2	0	0	2	2	3	2	2	0	0	2	1	2	3	1
S49	1	0	0	1	0	2	1	3	0	0	1	0	1	1	0	1
S50	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
S51	0	0	2	2	0	1	1	2	2	0	0	2	0	0	2	0
S52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S53	0	0	0	2	0	2	0	2	0	2	0	2	0	4	0	4
S54	2	0	0	0	0	2	2	2	0	0	0	0	0	4	0	0
S55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S56	1	0	0	2	1	2	2	2	2	3	1	2	1	2	0	0
S57	0	0	0	2	1	4	1	1	0	0	0	1	0	0	0	0
S58	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
S59	0	0	0	0	2	2	2	2	2	0	0,2	2	1	2	0	0
S60	1	0	4	2	1	1	1	1	0	0	0	1	0	0	0	1
S61	0	0	2	2	0	1	3	2	0	0	0	0	0	2	1	2
S62	0	0	0	2	1	1	1	3	2	0	0	1	1	4	0	2
S63	1	2	1	2	3	3	2	2	2	2	1	2	2	2	0	0
S66	1	0	1	2	1	3	0	2	1	1	1	2	1	2	1	1
S67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S68	2	0	0	1	0	1	1	0	0	1	0	1	1	1	1	1
S69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S70	0	1	0	0	0	1	1	0	0	0	0	0	0	1	0	0
S71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S72	1	1	3	0	1	0	0	2	-	2	1	0	0	4	0	1
S73	1	1	1	2	1	2	2	1	2	0	0	0	1	0	0	0
S74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S75	0	0	0	2	0	0	1	1	1	0	0	1	1	4	0	0
S77	0	0	0	0	0	1	0	1	2	0	0	0	0	0	0	0

(Continuation of QOL Data)

PID	PF_s4-pre	PF_s5-pre	PF_s6-pre	PF_cf1-pre	PF_cf2-pre	PF_cf3-pre	PF_cf4-pre	PF_cf5-pre	PF_cf6-pre	PQ_h1-post	PQ_h2-post	PQ_h3-post	PQ_h4-post	PQ_h5-post	PQ_h6-post	PQ_h7-post	PQ_h8-post
S01	0,4	-	-	1	2	1	1,3	4	-	4	4	4	4	4	4	4	3
S02	-	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0
S03	0	0	2	0	0	0	2	2	2	4	4	4	2	4	4	4	4
S04	1		0	1	2	1	1	3	1	0	0	0	0	0	0	0	0
S05	0,1	2	2	1	2	1	2	1	2	0	0	0	2	0	0	2	0
S06	-	-	-	-	-	-	-	-	-	0	0	0	4	0	0	2	0
S07	2	2	1	0	1	1	2	1	2	0	0	0	1	0	0	1	1
S08	2	0	0	0	1	0	0	1	1	0	0	2	0	0	0	2	0
S09	-	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0
S10	0	2	3	0	3	0	0	3	2	0	1	0	2	0	0	2	0
S11	0	0	0	0	1	1	1	1	1	0	0	0	2	0	0	2	0
S12	1	0	0	1	1	1	1	1	1	0	0	0	1	0	0	0	1
S13	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	2	0
S14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S15	1	1	2	1	2	1	0	0	1	0	0	0	0	0	0	1	0
S16	0	0	0	0	2	2	2	2	0	1	0	0	4	0	0	0	2
S17	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-
S18	-	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0
S19	0	2	2	4	2	4	2	2	3	-	-	-	-	-	-	-	-
S20	4	1	0	4	4	0	4	2	3	0	0	0	1	0	0	0	1
S21	0	1	1	0	1	1	-	0	0	0	0	0	0	0	1	0	0
S22	2	2	2	0	0	0	0	0	0	0	0	0	2	0	0	2	0
S23	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0
S24	-	-	-	-	-	-	-	-	-	0	0	0	2	0	0	4	0
S25	1	3	0	1	2	1	1	3	2	0	0	0	0	0	0	0	0
S26	1	3	0	1	2	1	1	3	2	0	0	1	1	0	0	1	0
S27	0	0	0	2	2	0	2	2	2	0	0,1	1	0	0	0	0	2
S28	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
S29	1	0	0	2	1	1	2	2	1	0	0	0	2	0	0	2	0
S30	0	0	0	2	2	2	2	2	2	0	0	0	2	0	0	2	0
S31	-	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0
S32	0	0	0	0	2	0	0	0	4	0	1	0	0,2	0	0	2	3
S33	3	2	1	1	1	3	4	1	2	0	1	0	2	0	0	2	3
S34	1	2	2	1	2	1	2	1	2	2	0	0	2	0	1	0	2
S35	0	0	2	0	1	1	-	1	1	0	0	0	1	0	0	0	0
S36	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	4	0
S37	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0
S38	0	0	0	0	0	0	1	0	0	4	4	4	2	4	4	2	4

PID	PF_s4-pre	PF_s5-pre	PF_s6-pre	PF_cf1-pre	PF_cf2-pre	PF_cf3-pre	PF_cf4-pre	PF_cf5-pre	PF_cf6-pre	PQ_h1-post	PQ_h2-post	PQ_h3-post	PQ_h4-post	PQ_h5-post	PQ_h6-post	PQ_h7-post	PQ_h8-post
S39	0	0	0	3	2	2	2	2	4	0	2	2	2	0,2	2	0	0
S40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S41	0	1	4	2	0	1	2	3	4	2	0	0	2	0	0	2	0
S42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S43	-	-	-	-	-	-	-	-	-	0	0	1	1	0	1	0	1
S44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0,4	0,4
S45	-	-	-	-	-	-	-	-	-	1	0		4	4	4	4	2
S46	2	3	2	0	0	2	1	2	3	2	0	2	0	4	4	2	2
S47	2	2	1	0	2	1	0	2	0	0	2	0	2	0	1	4	2
S49	0	0	1	0	1	1	0	1	0	0	0	0	2	0	2	1	0
S50	0	0	0	0	2	3	0	2	0	0	0	1	1	0	0	1	0
S51	0	0		2	2	2	2	2	2	-	-	-	-	-	-	-	-
S52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S53	4	1	1	0	2	2	0	2	0	0	0	0	0	0	0	0	0
S54	4	2	4	2	2	2	2	2	3	0	0	0	2	0	0	4	0
S55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S56	1	1	2	2	0	0	2	0	1	0	2	0	2	0	0	0	2
S57	2	0	0	2	1	0	1	1	1	0	0	0	2	0	0	2	2
S58	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	4	0
S59	0	0	2	0	2	0	1	0	2	1	4	4	4	4	4	4	2
S60	0	1	0	0	1	0	1	2	2	0	0	0	0	0	0	0	1
S61	1	1	0	0	2	2	1	2	2	0	3	0	0	0	4	4	4
S62	1	1	2	1	1	1	1	0	2	0	0	0	2	0	0	2	0
S63	1	1	3	1	1	1	1	1	1	0	0	0	0	0	0	2	4
S66	1	3	0	1	2	1	1,3	3	2	4	4	4	4	4	4	4	4
S67	-	-	-	-	-	-	-	-	-	0	0	0	0,2	0	0	2	-
S68	1	1	1	0	1	0	1	1	1	0	0	0	2	0	0	1	0
S69	-	-	-	-	-	-	-	-	-	0	0	0,2	0	0	-	2	0
S70	0	0	0	0	0	0	0	0	0	3	3	4	2	4	4	4	-
S71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S72	4	1	1	0	0	2	3	3	3	-	-	-	-	-	-	-	-
S73	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
S74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S75	1	0	1	1	1	1	0	0	2	0	0	0	2	0	0	2	0
S77	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1

(Continuation of QOL Data)

PID	PQ_f1-post	PQ_f2-post	PQ_f3-post	PQ_f4-post	PQ_f5-post	PQ_o1-post	PQ_o2-post	PQ_o3-post	PQ_o4-post	PQ_o5-post	PQ_s1-post	PQ_s2-post	PQ_s3-post	PQ_s4-post	PQ_s5-post	PF_g1-post	PF_g2-post
S01	4	3	2	4	1	0	4	0	4	4	4	4	4	2	2	3	0
S02	0	0	1	0	4	0	0	0	0	0	0	1	0	3	0	0	0
S03	2	4	2	4	4	4	4	4	4	4	4	2	4	2	2	2	0
S04	2	3	1	1	0	1	0	1	1	0	0	1	0	0	1	1	0
S05	2	2	0	0	0	0	4	2	4	4	2	0	4	0	4	4	0
S06	0	2	1,3	0	4	0	0,1	2	0	0	0	0	0	0	0	0	0
S07	0	0	1	1	0	1	0	1	1	0	1		4	1	1	1	2
S08	0	1	2	0	2	3	4	2	0	4	0	2	1	1	4	0	2
S09	0	0	2	0	0	0	0	0	2	0	2	2	0	0	2	0	0
S10	1	1	2	0	0	0	4	2	1	4	0	2	0	2	4	2	2
S11	2	1	2	0	1	0	0	0	0	0	0	1	1	2	2	2	0
S12	0	0	1	0	1	1	0	1	1	0	1	0	0	0	1	1	0
S13	0	2	2	0	2	0	0	2	2	0	2	2	0	2	2	0	0
S14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S15	1	1	1	0	1	4	4	1	0	4	1	2	1	0	0	1	0
S16	0	4	3	0	4	0	0	4	3	0	1	0		3	4	3	4
S17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S18	0	0	0	4	2	0	0	0	2	0	2	1	0	1	2	0	2
S19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S20	2	2	1	0	0	0	0	0	2	1	1	2	1	1	1	1	2
S21	0	0	0	2	0	0	0	0	0	0	0	0	2	2	0	0	0
S22	0	2	2	2	2	1	0	2	2	0	0	2	2	2	2	2	2
S23	2	0	1	0	0	2	0	2	1	0	0	0	0	2	2	2	0
S24	4	2	2	0	2	2	4	2	2	4	4	0	4	4	4	0	0
S25	0	1	2	0	0	0	0	0	1	0	0	2	0	2	2	0	0
S26	0	2	2	0	0	1	2	2	1	0	1	1	2	2	2	1	0
S27	0	2	2	3	2	0	0	0	2	2	0	2	0	2	2	2	2
S28	0	1	0	1	2	0	0	0	0	0	0	0	0	1	0	0	0
S29	1	2	2	0	1	4	4	2	0	4	0	2	0	4	4	2	2
S30	2	1	2	0	2	0	0	0	0	0	0	2	1	2	2	2	2
S31	0	1	4	4	0	0	0	0	0	0	0	0	0	0	1	0	0
S32	0	1	2	2	0	0	1	2	1	0	0	1	1	2	1	0	1
S33	2	2	0	1	0	0	1	1	0	0	0	0	1	0	1	0	0
S34	2	2	2	0	2	0	1	2	0	0	2	2	2	2	0	0	0
S35	0	0	1	0	1	0	1	0	0	0	1	1	1	3	1	0	1
S36	2	2	2	2	2	0	0	2	2	0	0	2	2	2	2	2	0
S37	2	2	2	2	2	0	0	2	0	0	0	0	2	2	2	2	0
S38	2	0	2	0	2	0	4	0	4	0	0	2	0	4	4	2	0

PID	PQ_f1-post	PQ_f2-post	PQ_f3-post	PQ_f4-post	PQ_f5-post	PQ_o1-post	PQ_o2-post	PQ_o3-post	PQ_o4-post	PQ_o5-post	PQ_s1-post	PQ_s2-post	PQ_s3-post	PQ_s4-post	PQ_s5-post	PF_g1-post	PF_g2-post
S39	0	2	2	0	2	0	0	2	3	0	2	2	0	2	2	0	0
S40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S41	2	2	4	0	0	0	0	4	2	0	0	2	0	4	2	1	1
S42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S43	1	1	3	0	2	2	0	2	0	0	2	2	2	1	1	1	1
S44	0	0	2	1	0	0	0	2	2	0	2	2	0	0	2	2	0
S45	2	2	2	4	0,2	0	4	0	0	4	4	4	4	4	-	0,2	0
S46	2	2	2	4	2	0	4	2	4	4	4	4	4	2	2	2	0
S47	2	2	2	3	0	0	0	2	0	0	0	1	2	1	2	2	0
S49	2	1	2	0	1	3	4	1	0	4	0	1	0	4	4	3	2
S50	1	1	1	0	1	0	0	1	1	0	1	1	0	2	1	1	1
S51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S53	0	0	2	0	2	0	0	0	2	0	0	0	0	2	2	0	0
S54	4	2	2	0	2	2	4	2	2	4	2	2	4	4	4	0	2
S55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S56	2	2	3	0	2	0	2	2	0	0	0	2	2	2	4	2	1
S57	4	0	2	2	2	0	0	0	0	0	0	2	2	4	4	2	2
S58	4	2	2	0	2	2	2	2	2	4	4	2	4	4	4	0	0
S59	2	2	2	4	2	0	4	0	4	4	4	4	4	2	2	2	0
S60	1	0	2	0	4	0	0	0	2	0	1	1	0	2	2	1	1
S61	2	2	2	0	4	0	2	2	0	0	0	2	0	2	2	2	2
S62	2	1	2	0	2	0	0	2	0	0	0	2	0	2	1	1	0
S63	1	2	2	0	0	0	0	0	0	0	0	0	0	1	1	0	4
S66	2	0	2	0	2	0	4	0	4	0	0	0	0	4	0	2	0
S67	0	2	2	0	0	0	0	2	0	0	0	2	0	2	2	2	0
S68	0	0	0	0	0	0	0	1	2	0	1	1	1	2	1	1	1
S69	0	1	2	0	1	4	4	2	0	4	0	1,2	1	1	3,4	0	3
S70	4	4	4	4	4		4	0	4	4	4	4	4	2	3	2	0
S71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S73	0	0	1	0	0	0	0	0	1	0	2	2	0	2	2	0	1
S74	4	2	3	0	0	0	2	2	2	2	0	2	2	3	3	3	3
S75	2	2	2	0	0	0	0	2	2	0	0	2	1	2	2	2	0
S77	1	2	3	0	1	0	1	1	1	0	1	1	1	2	1	1	1



(Continuation of QOL Data)

PID	PF_g3-post	PF_g4-post	PF_g5-post	PF_g6-post	PF_s1-post	PF_s2-post	PF_s3-post	PF_s4-post	PF_s5-post	PF_s6-post	PF_cf1-post	PF_cf2-post	PF_cf3-post	PF_cf4-post	PF_cf5-post	PF_cf6-post
S01	0	1	0	4	4	4	4	0	3	0	4	4	0	4	0	4
S02	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	1
S03	0	0	0	0	4	4	0	4	0	4	4	2	4	2	2	2
S04	0	0	1	0	0	0	0	0	0	0	1	1	0	1	0	1
S05	4	4	0	0	4	0	0	0	4	4	0	0	0	0	0	0
S06	0	0	2	2	4	0	0	0	2	1	0	2	1	1	0	0
S07	1	1	1	4	4	0	1	4	4	3	1	4	3	4		1
S08	1	0	0	2	0	0	3	2	0	1	0	1	0	0	0	0
S09	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0
S10	0	0	0	2	2	0	0	4	2	0	4	0	2	2	1	2
S11	2	1	1	2	0	0	0	0	0	0	1	1	2	1	2	4
S12	0	0	0	0	0	0	1	1	1	0	0	1	0	1	0	1
S13	0	0	0	0	2	0	0	2	2	0	0	0	0	2	0	1
S14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S15	0	0	1	0	1	0	1	1	0	0	1	3	2	2	1	2
S16	1	4	1	4	0	0	3	2	0	1	2	0	3	4		4
S17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S18	0	1	0	0	0	1	0	1	0	0	0	0	0	1	0	0
S19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S20	0	0	1	0	4	0	0	2	0	1	1	1	1	1	1	1
S21	0	0	2	0	1	0	0	0	0	2	0	1	2	3	0	0
S22	2	1	0	0	2	2	0	0	2	2	2	2	1	2	1	2
S23	0	0	0	0	0	0	0	2	0	0	0	2	0	2	0	2
S24	0	0	0	0	1	0	0	0	2	2	0	2	2	0	0	3
S25	0	0	0	0	0	1	0	2	3	0	0	1	0	2	0	0
S26	0	0	1	0	0	1	0	1	1	1	1	2	0	1	1	2
S27	2		4	2	0	2	0	0	0	0	0	0	0	0	0	2
S28	0	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0
S29	0	0	1	2	0	0	2	1	0	1	2	1	0	0	2	0
S30	2	2	1	2	0	0	0	0	0	0	2	1	1	2	1	4
S31	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
S32	0	1	1	0	2	0	1	0	1	4	0	1	2	1	0	1
S33	0	3	0	0	0	0	0	0	2	0	0	0	0	0	0	0
S34	2	0	2	0	0	2	2	2	0	1	0	2	2	0	2	0
S35	0	0	1	0	4	0	0	2	1	0	1	1	1	1	1	1
S36	0	2	2	2	2	0	2	0,2	-	4	0	0	0	0	0	0
S37	0	0	2	2	2	0	2	2	2	2	0	0	0	2	2	0
S38	4	0	0	2	4	4	0	0	4	0	4	4	2	4	2	4

PID	PF_g3-post	PF_g4-post	PF_g5-post	PF_g6-post	PF_s1-post	PF_s2-post	PF_s3-post	PF_s4-post	PF_s5-post	PF_s6-post	PF_cf1-post	PF_cf2-post	PF_cf3-post	PF_cf4-post	PF_cf5-post	PF_cf6-post
S39	2	0	0	0	2	0	0	0	1	1	0	1	1	0	0	1
S40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S41	0	0	0	0	4	0	1	0	0	0	0	1	1	0	0	0
S42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S43	0	0	0	0	4	0	1	0	0	2	0	1	1	1	1	1
S44	0	0	0	0	2	0	0	1	1	0	0	0	1	-	0	0
S45	0	0	0	0	4	4	0	0	0	0	0	4	3	0	4	4
S46	0	2	2	0	4	4	0	0	0	2	4	4	4	0	0	4
S47	0	2	-	2	2	1	0	2	0	2	0	2	0	2	2	2
S49	0	0	2	0	0	2	0	2	0	1	1	2	0	1	0	1
S50	0	0	1	0	4	0	0	1	0	1	1	1	1	1	1	1
S51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S53	0	0	0	0	2	0	0	0	2	0	0	0	2	4	2	0
S54	0	0	0	0	1	0	0	2	2	2	0	2	2	0	2	3
S55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S56	0	0	0	0	2	0	0	2	2	2	0	2	0	2	2	2
S57	2	0	2	0	1	2	2	2	0	0	2	2	0	0	0	0
S58	0	0	0	0	1	2	0	2	2	0	0	2	2	0	2	3
S59	0	0	0	0	4	4	0	0	0	0	4	4	4	0	0	4
S60	0	0	0	0	1	2	0	1	0	1	0	1	1	-	1	0
S61	0	0	4	0	0	0	0	0	2	2	0,1	-	0	0	0	4
S62	0	0	0	0	2	0	0	0	2	0	0	0	0	0	1	2
S63	0	0	4	4	3	3	3	2	3	0	2	3	2	3	2	0
S66	4	0	2	0	0	4	0	0	0	4	4	4	2	4	2	4
S67	0	0	0	0	-	0,2	2	0,2	-	2	2	0	0	2	2	-
S68	0	0	2	1	4	0	1	1	0	1	1	2	1	2	1	2
S69	2	0	2	0	0	2	1	0,2	1	0	1	2	0	0,1	1	1
S70	0	0	0	0	4	4	0	0	0	0	4	4	3	1	4	0
S71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S73	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0
S74	0	0	0	0	4	0	1	1	1	1	0	1	1	1	2	3
S75	0	1	0	1	2	0	1	2	2	4	0	2	2	2	0	2
S77	0	0	1	0	4	0	1	0	1	1	1	1	1	1	1	1

## CDI data

PID	CDI_1-pre	CDI_2-pre	CDI_3-pre	CDI_4-pre	CDI_5-pre	CDI_6-pre	CDI_7-pre	CDI_8-pre	CDI_9-pre	CDI_10-pre	CDI_11-pre	CDI_12-pre	CDI_13-pre	CDI_14-pre	CDI_15-pre	CDI_16-pre
S01	2	2	2	2	2	3	2	3	1	2	2	2	2	2	3	1
S02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S03	1	2	2	2	1	3	3	1	3	3	1	3	1	1	3	1
S04	1	2	1	2	1	3	2	2	3	3	1	2	1	3	3	1
S05	1,2,3	3	1	2	1	3	1	1	3	3	1	3	1	3	3	1
S06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S07	2	3	2	1	1	3	2	1	2	2	2	1,3	1	3	3	1
S08	1	3	1	2	2	3	3	2	3	3	1	1	1	3	3	1
S09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S10	1	2	1	2	1	3	3	1	3	3	1	3	1	3	3	1
S11	1	3	1	2	1	3	3	1	3	3	1	3	1	2	3	1
S12	1	3	2	1	2	3	2	3	2	2	1	3	1	2	2	1
S13	1	3	1	1	1	3	3	1	3	3	1	3	1	3	3	1
S14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SA5	1	3	1	2	3	3	3	1	3	3	1	2	1	2	2	1
S16	2	1	2	1	2	1	1	2	2	1	2	1	2	2	2	1
S17	1	1	1	2	1	3	1	1	3	3	1	2	1	3	3	1
S18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S19	2	2	2	2	2	2	2	2	2	2	2	3	2	3	2	2
S20	1	1	1	1	3	2	2	3	2	2	3	3	3	1	2	2
S21	3	3	1	1	1	3	3	1	3	1	1	3	1	3	3	1
S22	1	-	1	1	1	3	1	1	3	-	1	-	1	3	3	1
S23	1	3	1	1	1	3	3	1		3	1	3	1	3	1	1
S24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S25	2	1	2	2	2	3	2	3	3	2	2	2	2	2	3	3
S26	2	1	2	2	2	3	2	3	3	2	2	2	2	2	3	1
S27	1	1	1	1	2	1	1	1	1	1	1	2	2	1	2	2
S28	1	3	3	2	2	3	3	2	1	1	3	1	3	3	1	3
S29	1	3	1	2	3	3	3	1	3	3	1	2	1	2	3	1
S30	1	2	1	1	2	3	3	1	3	3	1	2	1	3	3	1
S31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S32	1	3	1	1	1	3	3	1	3	3	1	3	1	3	3	1
S33	1	2	1	1	3	3	1	3	2	2	2	2	2	2	2	2
S34	3	3	3	3	3	3	3	3	3	3	1	2	2	1	1	2
S35	1	3	1	1	1	3	2	1	3	2	1	3	1	3	3	1
A36	1	3	1	1	1	3	1	1	3	3	1	3	1	1	3	1
A37	1	3	1	1	1	1	3	3	1	1	1	3	1	1	2	2
S38	1	3	1	1	1	3	2	1	3	3	1	3	1	3	3	1
A39	1	2	1	1	1	3	2	2	3	2	1	3	1	3	3	1
S40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S41	3	3	1	1	3	3	3	2	3	1	3	1	1	1	3	3

PID	CDI_1-pre	CDI_2-pre	CDI_3-pre	CDI_4-pre	CDI_5-pre	CDI_6-pre	CDI_7-pre	CDI_8-pre	CDI_9-pre	CDI_10-pre	CDI_11-pre	CDI_12-pre	CDI_13-pre	CDI_14-pre	CDI_15-pre	CDI_16-pre
S42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S44	1	3	2	3	3	2	2	2	1	3	3	1	2	1	1	2
S45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S46	3	3	1	1	1	3	1	1	3	3	1	1	1	3	1	1
S47	1	2	1	2	1	2	2	2	3	1	3	3	1	2	3	1
S49	1	3	1	2	1	3	1	2	3	1	1	3	1	3	3	2
S50	1	1	1	1	1	3	3	1	3	3	1	3	1	1	3	1
S51	1	2	2	2	1	3	3	1	3	3	1	2	1	3	3	1
S52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S53	1	3	1	1	3	3	3	1	3	3	1	1	1	3	3	2
S54	1		1	1	1	3	3	1	3		1		1	3	3	1
S55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S56	2	3	2	2	1	3	3	1	3	3	1	2	1	2	3	1
S57	1	3	1	2	3	3	3	1	3	2	1	2	1	2	3	2
S58	1	3	1	3	3	3	1	1	3	3	1	3	1	3	3	1
S59	1	3	1	1	1	3	2	1	3	2	1	3	1	3	3	1
S60	1	3	1	2	3	3	3	1	3	2	1	2	1	2	3	3
S61	1	3	1	1	1	3	2	1	2	2	1	2	2	3	3	1
S62	3	3	2	1	1	3	2	1	3	2	1	2	1	3	3	1
S63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S66	2	1	2	2	2	3	3	3	3	2	2	2	2	2	3	1
S67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S68	1	2	1	1	2	3	3	2	3	3	1	3	1	3	3	1
S69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S70	1,2,3	1,2,3	1,2	1	1	1	2	1	1	2	1	1,2	1	1	3	1
S71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S72	1	2	2	1	1	1	1	1	1	1	1	2	1	1	1	1
S73	1	1	1	1	2	3	2	1	2	3	1	3	1	1	3	1
S74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S75	1		1	1	3	2	3	1	3	2	1	3	1	3	3	1
S77	1	3	1	1	1	3	1	1	1	3	1	3	1	3	3	1

(Continuation of CDI data)

PID	CDI_17-pre	CDI_18-pre	CDI_19-pre	CDI_20-pre	CDI_21-pre	CDI_22-pre	CDI_23-pre	CDI_24-pre	CDI_25-pre	CDI_26-pre	CDI_27-pre	CDI_28-pre	CDI_1-post	CDI_2-post	CDI_3_post	CDI_4-post
S01	3	3	3	2	3	1	2	2	1	3	3	2	2	2	1	1
S02	-	-	-	-	-	-	-	-	-	-	-	-	1	2	3	2
S03	3	1	2	2	2	1	2	3	1	3	3	2	1	3	1	2
S04	3	1	1	2	1	1	3	3	1	3	3	2	1	2	1	2
S05	3	1	1	3	2	1	3	3	1	3	3	1	2	2	1	2
S06	-	-	-	-	-	-	-	-	-	-	-	-	1	3	1	1
S07	3	1	1	3	2	1	3	3	1	3	3	1	2	2	3	3
S08	1	1	1	2	2	1	3	3	1	3	3	2	2	1	2	2
S09	-	-	-	-	-	-	-	-	-	-	-	-	3	1	1	1
S10	3	1	1	3	1	1	3	3	1	1	3	2	2	2	1	2
S11	3	2	1	3	2	1	3	3	1	3	3	1	1	3	2	2
S12	3	2	2	3	2	2	3	2	2	2	3	2	2	3	3	3
S13	3	1	1	3	3	1	3	3	2	3	3	1	1	3	2	1
S14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SA5	3	2	1	3	2	3	2	2	1	2	3	2	2	1	2	2
S16	2	1	1	1	1	1	1	2	1	3	3	1	3	2	3	1
S17	1	1	2	3	1	1	3	3	1	2	3	2	-	-	-	-
S18	-	-	-	-	-	-	-	-	-	-	-	-	2	1	1	1
S19	3	2	2	2	1	3	1	2	1	3	1	1	-	-	-	-
S20	2	2	3	2	3	3	3	1	2	2	3	3	1	3	2	2
S21	3	1	1	3	2	1	3	3	1	2	3	1	3	1	2	2
S22	3	1	3	3	1	1	2	3	1	3	3	1	1	3	1	1
S23	3	1	1	3	1	1	3	1	1	3	3	1	1	3	1	2
S24	-	-	-	-	-	-	-	-	-	-	-	-	2	3	2	3
S25	3	2	3	2	3	1	2	2	1	3	3	2	1	2	1	2
S26	3	2	3	2	3	1	2	2	1	3	3	2	1	2	2	2
S27	1	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1
S28	2	1	2	3	1	1	3	3	1	3	2	2	2	3	1	1
S29	3	2	1	3	2	1	2	3	1	2	3	2	1	1	2	2
S30	3	1	1	3	1	1	3	3	1	3	3	1	1	3	2	2
S31	-	-	-	-	-	-	-	-	-	-	-	-	1	3	1	1
S32	3	1	1	3	1	1	3	3	1	3	3	1	1	2	2	1
S33	1	2	3	2	3	2	3	3	2	3	3	2	2	2	2	3
S34	2	1	1	1	2	1	1	2	2	2	2	2	1	1	1,2	1
S35	3	1	1	3	2	1	3	3	1	3	3	2	1	3	2	1
A36	3	2	1	3	1	1	2	3	3	3	3	1	1	2	1	1
A37	2	1	3	1	3	3	1	2	1	1	3	2	1	1	1	2
S38	3	1	1	3	1	1	3	3	1	3	3	1	1	1	3	2
A39	3	2	2	2	2	1	3	3	2	3	3	2	1	1	2	1
S40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S41	3	1	1	3	2	1	3	3	1	3	3	1	1	3	1	1
S42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PID	CDI_17-pre	CDI_18-pre	CDI_19-pre	CDI_20-pre	CDI_21-pre	CDI_22-pre	CDI_23-pre	CDI_24-pre	CDI_25-pre	CDI_26-pre	CDI_27-pre	CDI_28-pre	CDI_1-post	CDI_2-post	CDI_3-post	CDI_4-post
S43	-	-	-	-	-	-	-	-	-	-	-	-	1	3	2	2
S44	2	2	3	1	2	3	3	1	2	2	1	3	3	1	1	1
S45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S46	3	3	3	3	1	1	3	3	1	1	3	1	2	2	1	1
S47	3	1	2	3	3	2	2	1	1	3	3	1	1	3	2	1
S49	3	2	3	3	1	2	3	3	1	3	3	1	2	1	2	2
S50	3	2	1	3	1	1	2	3	2	3	3	1	1	3	2	2
S51	3	1	1	3	1	1	3	1	1	3	3	1	-	-	-	-
S52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S53	3	2	1	3	2	1	2	3	1	3	3	2	-	-	-	-
S54	3	1	3	3	1	1	2	3	1	3	3	1	2	3	2	2
S55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S56	3	2	1	3	1	1	3	3	1	2	2	2	1	3	1	2
S57	3	2	1	3	1	1	2	3	1	3	3	2	1	3	1	1
S58	3	1	3	3	1	1	3	3	1	3	3	1	1	3	1	1
S59	3	1	1	3	2	1	3	3	2	3	3	2	2	2	1	1
S60	3	2	1	3	1	1	2	3	1	3	3	2	2	1	1	1
S61	1	1	1	2	2	1	1	2	2	3	3	2	1	3	1	2
S62	3	1	2	3	1	1	3	3	2	2	3	1	1	3	1	1
S63	-	-	-	-	-	-	-	-	-	-	-	-	1	3	2	1
S66	3	2	3	2	3	1	2	2	1	3	3	2	1	1	1	1
S67	-	-	-	-	-	-	-	-	-	-	-	-	1	2	2	2
S68	3	1	1	3	1	1	2	2	1	3	3	1	1	3	2	2
S69	-	-	-	-	-	-	-	-	-	-	-	-	2	1	2	2
S70	1	1	1,2	1,2	2		3	3	1	1	1,2	1	3	1	1	1
S71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S72	1	1	1	1	1	3	1	2	2	3	2	1	-	-	-	-
S73	3	1	1	3	1	1	3	2	1	2	3	2	1	1	1	1
S74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S75	3	1	1	3	1	1	3	3	1	2	3	1	2	2	2	3
S77	3	1	1	3	1	1	3	3	1	3	3	1	1	3	1	1

(Continuation of CDI data)

PID	CDI_5-post	CDI_6-post	CDI_7-post	CDI_8-post	CDI_9-post	CDI_10-post	CDI_11-post	CDI_12-post	CDI_13-post	CDI_14-post	CDI_15-post	CDI_16-post	CDI_17-post	CDI_18-post	CDI_19-post	CDI_20-post
S01	1	3	3	1	3	2	1	3	1	1	2	1	3	2	3	3
S02	1	2	1	3	3	3	1	2	3	1	2	3	2	3	-	1
S03	1	3	3	1	3	3	1	3	1	3	3	1	3	1	3	3
S04	1	3	3	1	3	3	1	3	1	3	3	1	3	1	1	2
S05	1	3	1	1	3	2	1	1	1	1	2	2	2	2	1	3

PID	CDI_5-post	CDI_6-post	CDI_7-post	CDI_8-post	CDI_9-post	CDI_10-post	CDI_11-post	CDI_12-post	CDI_13-post	CDI_14-post	CDI_15-post	CDI_16-post	CDI_17-post	CDI_18-post	CDI_19-post	CDI_20-post
S06	1	3	2	1	3	3	1	3	1	2	3	1	3	1	1	3
S07	1	3	3	2	1,3	3	2	1	1	-	2	2	2	2	1	2
S08	1	3	2	2	2	1	1	2	1	1	2	1	1	2	1	3
S09	2	3	3	3	2	2	1	1	1	1	1	2	3	1	1	1
S10	1	3	3	1	3	2	1	1	1	1	3	2	2	2	1	3
S11	1	3	2	2	3	1	1	2	1	3	3	2	1	2	3	3
S12	1	3	2	2	3	2	2	2	1	2	3	1	3	1	1	2
S13	1	3	3	1	3	3	1	3	1	3	2	1	3	2	1	3
S14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SA5	1	3	2	2	3	1	1	2	1	1	2	2	3	1	1	3
S16	1	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
S17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S18	1	3	3	1	1	3	1	1	1	1	1	2	3	1	1	1
S19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S20	3	3	2	1	3	3	1	3	1	2	3	1	3	1	1	3
S21	1	2	2	1	2	2	1	2	1	3	3	1	2	1	1	3
S22	1	3	2	1	3	3	1	2	1	3	1	1	3		1	3
S23	1	3	1	2	3	3	1	3	1	1	3	1	1	1	1	3
S24	1	3	3	1	3	3	1	3	1	3	3	3	3	1	1	3
S25	2	3	2	1	3	2	1	2	1	2	3	2	3	2	1	2
S26	1	3	2	1	3	2	1	2	1	2	2	2	3	2	1	3
S27	1	1	3	1	3	3	1	1	1	3	1	1	2	1	1	3
S28	1	3	2	1	2	3	1	3	1	3	3	1	3	1	1	1
S29	1	3	2	2	3	2	1	2	1	1	2	1	2	2	1	3
S30	1	3	2	2	2	1	1	2	1	3	3	2	1	2	3	3
S31	2	3	2	1	3	3	1	3	1	3	3	1	3	1	1	2
S32	1	2	2	2	2	2	3	1	1	2	3	2	3	1	1	2
S33	2	2	2	2	2	2	2	1	1	2	1	1	1	1	2	1
S34	1	1	1	2	3	3	1	1	3	1	3	1	2,3	1	1	1
S35	1	3	2	2	3	2	1	2	1	2	3	1	3	1	1	2
A36	1	2	2	2	3	1	1	1	1	1	3	1	3	1	1	2
A37	1	3	3	1	3	1	1	3	1	3	2	1	3	1	1	3
S38	1	3	1	1	1	3	1	3	1	1	3	1	3	2	1	3
A39	1	1	2	2	2	3	1	1	1	1	2	2	3	2	2	2
S40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S41	1	3	2	1	3	2	1	3	1	3	2	1	3	1	1	3
S42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S43	1	3	2	1	3	2	1	3	1	3	3	1	3	1	1	3
S44	1	1	1	1	2	2	1	1	1	1	1	1	3	1	1	1

PID	CDI_5-post	CDI_6-post	CDI_7-post	CDI_8-post	CDI_9-post	CDI_10-post	CDI_11-post	CDI_12-post	CDI_13-post	CDI_14-post	CDI_15-post	CDI_16-post	CDI_17-post	CDI_18-post	CDI_19-post	CDI_20-post
S45	-	-	-	-	-	-	1	1	1	1	2	1	3	2	3	3
S46	1	3	1	3	3	3	1	1	1	1	3	1	2	1	1	1
S47	1	3	2	1	2	2	1	2	1	2	2	1	2	2	2	3
S49	1	3	2	2	2	1	1	2	1	1	2	1	3	2	1	3
S50	1	3	2	1	2	2	1	2	1	3	3	1	3	1	1	2
S51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S54	2	3	2	1	3	2	1	2	1	2	3	1	3	2	1	3
S55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S56	3	3	1	1	3	3	1	3	1	3	3	1	3	1	1	3
S57	1	3	3	1	3	1	1	3	1	3	2	1	3	1	1	3
S58	1	3	3	3	3	1	1	3	1	3	3	1	3	2	2	3
S59	2	1	3	3	2	1	1	1	2	1	2	1	3	2	3	3
S60	2	3	3	1	2	3	1	1	1	1	2	2	3	1	1	1
S61	1	3	2	2	3	3	1	1	1	2	3	1	1	1	1	3
S62	1	3	2	1	2	2	1	3	1	3	3	1	3	1	1	3
S63	1	3	2	1	2	2	1	3	1	2	3	2	2	2	1	3
S66	1	3	1	1	1	3	1	3	1	1	3	1	3	2	1	3
S67	1	3	2	1	3	3	1	3	1	3	3	1	3	1	1	3
S68	1	3	2	1	3	2	1	2	1	2	3	1	3	1	1	3
S69	1	3	2	2	2	1	1	2	1	1	2	1	3	1	1	3
S70	1	3	3	1	3	2	1	3	1	3	3	1	3	1	2	3
S71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S73	1	3	3	1	2	3	1	1	1	1	1	2	3	1	1	1
S74	1	1	3	1	2	2	1	2	1	2	2	2	2	1	1	3
S75	2	2	2	2	2	3	2	2	1	2	3	1	1	3	1	2
S77	1	3	2	1	3	2	1	2	1	2	3	1	3	2	1	3



(Continuation of CDI data)

PID	CDI_21-post	CDI_22-post	CDI_23-post	CDI_24-post	CDI_25-post	CDI_26-post	CDI_27-post	CDI_28-post
S01	3	1	1	1	1	3	1	3
S02	2	3	1	2	3	1	2	3
S03	2	3	3	3	1	3	3	2
S04	2	1	1	3	3	3	3	1
S05	1	2	3	3	1	1	3	1
S06	2	1	3	3	2	2	3	2
S07	2	2		2	3	2	1	2
S08	2	1	2	3	2	3	2	2
S09	2	1	3	1	3	1	1	2
S10	1	1	3	3	1	3	3	1
S11	3	3	3	1	3	3	3	2
S12	1	2	1	3	1	3	3	2
S13	2	1	3	3	1	1	3	2
S14	-	-	-	-	-	-	-	-
SA5	1	2	3	3	1	2	3	2
S16	1	2	3	1	2	3	1	2
S17	-	-	-	-	-	-	-	-
S18	2	1	3	1	3	1	3	1
S19	-	-	-	-	-	-	-	-
S20	2	1	3	3	1	3	3	2
S21	-	1	2	3	1	3	3	1
S22	1	1	3	2	1	3	3	1
S23	2	1	3	3	1	3	3	1
S24	1	1	2	3	3	3	3	1
S25	1	1	3	3	2	3	3	3
S26	2	1	2	3	2	2	3	2
S27	1	1	3	3	3	1	3	1
S28	1	1	1	3	2	1	3	2
S29	1	1	2	3	2	3	2	2
S30	3	3	3	1	2	3	3	2
S31	2	1	3	3	2	2	3	2
S32	1	2	1	3	2	2	1	1
S33	1	2	2	3	3	2	2	1
S34	2	1	-	-	1	2	1	2
S35	1	1	1	3	2	2	3	2
A36	1	1	2	3	2	2	1	1
A37	1	1	3	3	3	1	3	1

PID	CDI_21-post	CDI_22-post	CDI_23-post	CDI_24-post	CDI_25-post	CDI_26-post	CDI_27-post	CDI_28-post
S38	1	2	1	3	2	3	3	1
A39	1	1	2	3	1	2	1	2
S40	-	-	-	-	-	-	-	-
S41	2	1	3	3	2	3	2	3
S42	-	-	-	-	-	-	-	-
S43	2	1	1	3	2	3	3	2
S44	2	1	3	1	3	1	1	1
S45	3	1	1	1	1	3	3	3
S46	1	3	1	1	1	1	3	3
S47	2	1	3	3	2	3	3	2
S49	1	1	2	3	1	2	2	2
S50	1	2	3	3	2	3	3	2
S51	-	-	-	-	-	-	-	-
S52	-	-	-	-	-	-	-	-
S53	-	-	-	-	-	-	-	-
S54	1	1	3	3	2	3	3	2
S55	-	-	-	-	-	-	-	-
S56	2	1	3	3	1	3	3	1
S57	1	1	3	3	1	3	3	1
S58	1	1	3	3	2	3	3	2
S59	2	1	1	1	1	3	3	3
S60	2	1	3	1	3	1	3	1
S61	2	1	2	3	1	1	3	2
S62	2	1	3	3	1	2	3	2
S63	1	1	3	3	2	2	3	2
S66	1	2	1	3	2	3	3	1
S67	1	1	3	3	1	3	3	2
S68	1	1	3	3	2	2	3	2
S69	1	1	2	3	1	1	2	2
S70	2	1	3	3	1	1	3	1
S71	-	-	-	-	-	-	-	-
S72	-	-	-	-	-	-	-	-
S73	2	1	3	1	3	1	1	1
S74	1	1	2	3	2	2	3	2
S75	1	2	1	3	2	2	1	1
S77	2	1	2	3	2	3	3	2

## Cognitive functions data

PID	DSF_pre	DSB_pre	DSTot-pre	SWS-pre	SCS-pre	SCWS-pre	SDMT_pre	SLCT_attempted_pre	SLCT_wrong_pre	DSF_post	DSB_post	DSTot-post	SWS-post	SCS-post	SCWS-post	SDMT_post
S01	7	3	10	30	33	28	27	9	0	7	1	8	36	37	27	19
S02	8	4	12	45	44	25	36	14	0	10	5	15	41	36	25	39
S03	8	3	11	50	45	22	33	33	0	8	5	13	55	56	35	47
S04	11	4	15	80	62	25	38	22	0	8	4	12	86	64	34	40
S05	-	-	-	-	-	-	-	-	-	6	5	11	57	49	25	37
S06	-	-	-	-	-	-	-	-	-	8	2	10	21	30	20	19
S07	5	2	7	46	47	31	33	21	0	5	3	8	43	45	37	40
S08	7	2	9	65	50	23	29	19	1	-	-	-	-	-	-	-
S09	7	2	9	30	35	33	26	16	4	7	2	9	35	40	35	31
S10	8	4	12	46	37	20	43	27	0	8	4	12	56	45	22	34
S11	7	4	11	65	49	23	30	14	0	8	3	11	64	47	24	37
S12	9	3	12	60	45	15	33	22	0	8	3	11	60	47	30	45
S13	8	2	10	60	41	26	29	17	0	8	2	10	56	48	44	42
S14	-	-	-	-	-	-	-	-	-	4	2	6	24	26	18	30
S15	6	1	7	-	-	-	-	-	-	10	4	14	64	59	32	27
S16	6	4	10	43	35	26	44	22	0	8	4	12	45	38	32	40
S17	8	4	12	60	42	25	31	20	0	10	4	14	57	49	26	37
S18	8	4	12	42	41	27	32	28	0	4	0	4	-	-	-	11
S19	8	2	10	75	50	28	39	20	0	8	4	12	85	60	32	38
S20	6	2	8	49	45	22	29	15	0	8	2	10	58	43	21	36
S21	7	4	11	46	36	20	24	16	0	7	4	11	50	41	23	35
S22	7	6	13	71	55	18	30	16	0	9	5	14	65	51		31
S23	7	2	9	45	45	19	37	20	0	7	2	9	48	47	32	38
S24	5	2	7	23	41	30	30	13	0	5	1	6	40	47	29	27
S25	-	-	0	-	-	-	-	-	-	6	4	10	49	34	22	27
S26	8	4	12	75	57	40	29	12	0	8	6	14	57	58	37	40
S27	7	3	10	63	43	22	36	25	3	6	2	8	60	50	22	28
S28	-	-	-	20	23	20	-	-	0	8	2	10	34	33	22	24
S29	8	3	11	73	53	55	45	22	0	8	2	10	75	60	37	37
S30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S31	-	-	-	-	-	-	-	-	-	4	4	8	47	45	19	28
S32	5	4	9	-	-	-	32	25	0	6	4	10	37	36	33	33
S33	6	4	10	45	47	30	27	16	0	7	2	9	40	40	32	32
S34	6	2	8	-	-	-	39	20	0	8	4	12	68	57	39	24
S35	6	1	7	29	27	26	20	19	0	-	-	-	-	-	-	-
S36	8	2	10	56	42	20	25	14	0	7	4	11	73	48	25	33
S37	-	-	-	-	-	-	-	-	-	8	6	14	77	46	29	39
S38	7	3	10	68	40	20	37	16	0	8	6	14	67	49	26	39

PID	DSF_pre	DSB_pre	DSTot-pre	SWS-pre	SCS-pre	SCWS-pre	SDMT_pre	SLCT_attempted_pre	SLCT_wrong_pre	DSF_post	DSB_post	DSTot-post	SWS-post	SCS-post	SCWS-post	SDMT_post
S39	6	3	9	44	36	20	42	17	0	5	4	9	60	45	32	51
S40	7	2	9	-	-	-	27	14	0	-	-	-	-	-	-	-
S41	6	2	8	54	44	25	26	13	0	8	4	12	58	53	22	39
S42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S43	8	0	8	12	35	25	20	8	0	5	2	7	29	28	21	26
S44	11	4	15	30	25	15	8	11	0	11	6	17	47	30	28	26
S45	5	2	7	28	25	18	21	13	0	6	3	9	27	29	21	25
S46	5	2	7	42	38	27	30	1	0	6	1	7	43	32	16	21
S47	8	2	10	48	40	26	18	13	0	7	4	11	56	46	34	34
S49	6	1	7	31	43	23	29	28	0	8	4	12	42	43	30	37
S50	8	2	10	45	41	19	32	19	0	7	2	9	56	37	22	34
S51	6	2	8	25	38	22	22	4	0	-	-	-	-	-	-	-
S52	4	0	4	-	-	-	-	-	-	6	2	8	50	45	27	22
S53	5	2	7	42	38	29	37	20	0	6	3	9	55	46	30	43
S54	6	4	10	50	40	21	31	18	0	6	2	8	48	46	20	31
S55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S56	10	4	14	50	50	36	21	19	0	10	4	14	61	48	35	38
S57	7	5	12	55	49	26	45	30	0	8	8	16	64	52	32	47
S58	6	4	10	27	37	27	24	19	0	6	3	9	45	46	32	33
S59	6	1	7	33	36	28	24	14	0	7	5	12	40	43	30	32
S60	7	4	11	61	65	33	41	20	0	7	4	11	63	60	33	46
S61	7	2	9	65	55	28	40	9	0	7	5	12	72	30	21	40
S62	7	2	9	30	43	25	27	13	0	6	3	9	40	47	25	29
S63	5	3	8	62	49	25	29	26	0	6	5	11	64	31	35	51
S66	5	5	10	-	-	-	37	22	0	8	6	14	60	48	29	42
S67	5	2	7	53	45	31	33	23	0	-	-	-	-	-	-	-
S68	5	4	9	73	46	38	25	15	0	8	5	13	48	54	28	42
S69	5	2	7	20	40	42	34	15	1	3	2	5	19	31	25	26
S70	3	1	4	19	25	17	22	13	0	4	0	4	19	31	29	19
S71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S72	-	-	-	-	-	-	-	-	-	5	1	6	29	37	28	19
S73	5	2	7	24	44	41	34	14	0	6	2	8	45	57	52	28
S74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S75	6	3	9	20	45	40	23	15	0	5	5	10	49	49	43	35
S77	-	-	-	-	-	-	-	-	-	7	4	11	60	46	23	36

## APPENDIX VIII.2 STUDY TWO

### Basic data

Sl. No.	PID	Name*	Age (Years)	Gender
1	A01	PRA	10	Male
2	A02	VEN1	8	Male
3	A03	PAV	11	Female
4	A04	VEN2	10	Female
5	A05	SAT	12	Male
6	A06	VEE	13	Male
7	A07	PRA	12	Male
8	A08	RIH	14	Female
9	A09	TRI	12	Female
10	A10	RAJ	13	Male
11	A11	HAR	14	Male
12	A12	ABH	14	Male

Sl. No.	PID	Name*	Age (Years)	Gender
13	A13	ANI	14	Female
14	A14	HAR	14	Male
15	A15	BAS	14	Male
16	A16	PRA	14	Male
17	A17	SID	16	Male
18	A18	MAL	17	Male
19	A19	MOH	16	Male
20	A20	MAN1	17	Male
21	A21	PAR	18	Male
22	A22	MAN2	14	Male
* First 3 letters of the name				

### Immune parameters

PID	CD4_Pre	CD3_Pre	VL_Pre	CD4_Post	CD3_Post	VL_Post
A01	346	1823	77455	600	1817	310
A03	356	2092	145662	952	2607	4188
A04	712	1587	5676	777	1654	7029
A05	543	2393	18008	439	1892	310
A06	403	1290	126009	397	1401	15468
A12	624	1494	2567	753	1849	9153
A13	348	3117	137511	710	3225	310
A14	829	1936	304	1081	2145	7234
A15	317	1589	50461	364	1444	310
A16	997	2440	10121	911	2592	18687
A22	807	1802	36589	907	1992	310

### Quality of life data

PID	PQ_h1-pre	PQ_h2-pre	PQ_h3-pre	PQ_h4-pre	PQ_h5-pre	PQ_h6-pre	PQ_h7-pre	PQ_h8-pre	PQ_f1-pre	PQ_f2-pre	PQ_f3-pre	PQ_f4-pre	PQ_f5-pre	PQ_o1-pre	PQ_o2-pre	PQ_o3-pre
A01	1	2	1	2	1	2	1	1	2	2	1	2	2	1	1	2
A02	2	4	4	4	1	3	2	1	2	2	-	2	2	1,3	1	2
A03	4	4	4	4	1	3	2	1	2	2	1	2	2	3	2	2
A04	4	4	4	4	-	1	1	1,2	2	2	1	2	2	2	1	1
A05	3	3	3	1	1	2	2	1	3	3	1	2	2	1	1	2
A06	2	4	4	4	1	3	2	1	2	2	1	2	2	2	2	2

PID	PQ_h1-pre	PQ_h2-pre	PQ_h3-pre	PQ_h4-pre	PQ_h5-pre	PQ_h6-pre	PQ_h7-pre	PQ_h8-pre	PQ_f1-pre	PQ_f2-pre	PQ_f3-pre	PQ_f4-pre	PQ_f5-pre	PQ_o1-pre	PQ_o2-pre	PQ_o3-pre
A07	1	1	1	2	1	3	2	1	2	2	1	2	2	1	1	2
A08	3	3	3	3	0	1	3	2	2	3	2	0	1	1	2	1
A09	4	3	4	4	2	4	2,4	3	4	3	4	4	0	0	0	4
A10	0	1,2	3	1	0	3	1	2	4	2	3	4	1	0	0	1
A11	1	0,1	0	4	0	2	1	0	0	2	1	0	4	0	0	2
A12	0	4	3	3	0	1	2	3	1	2	1,3	4	2	0	4	3
A13	2	3	2	4	1	2	3	0	1	2	1	0	2	0	1	1
A14	0	2	0	4	0	0	1	0	0	2	1	0	0,1	0	0	0
A15	3	3	2	2	1	2	1	3	4	3	4	0	4	2	0	2
A16	3	3	1	2	1	1	1	2	1	2	1	1	3	0	1	2
A17	1	0	0	2	0	0	1	0	1	1	1	4	1	0	0	1
A18	0	0	1	1	0	0	1	0	1	1	3	0	0	0	0	0
A19	0	0	3	3	0	0	1	0	1	1	4	0	3	0	0	4
A20	1	0	0	2	0	0	1	0	0	0	1	0	1	0	0	0
A21	0	0	0	2	0	0	1	0	0	1	3	0	0	0	0	0
A22	0	0	1	0	0	0	1	1	1	2	1	0	1	0	1	3

(Continuation of QOL data)

PID	PQ_o4-pre	PQ_o5-pre	PQ_s1-pre	PQ_s2-pre	PQ_s3-pre	PQ_s4-pre	PQ_s5-pre	PF_g1-pre	PF_g2-pre	PF_g3-pre	PF_g4-pre	PF_g5-pre	PF_g6-pre	PF_s1-pre	PF_s2-pre	PF_s3-pre
A01	1	1	1	1	1	2	2	2	1	1	2	1	1	1	4	1
A02	1	1	2	1	2	2	2	2	3	1	4	1	1	3	2	1
A03	3	3	2	3	2	2	2	2	4	2	1		1	2	4	1
A04	2,3	3	2,3	4	2	2	2	2	4	4	4	1	1	4	4	4
A05	1	1	1	1	1	2	2	1	1	1	1	1	1	3	4	1
A06	2	2	1	1	1	2	2	1	3	4	1	1	1	3	1	4
A07	1	1	2	1	1	2	2	2	1	2	2	1	1	3	1	1
A08	2	0	2	1	4	0	0	0,2	0	0,1	0,1	0	0	4	1	2
A09	3	4	0	0	4	0	4	0	4	4	4	4	4	4	0	0,2
A10	3	2	0	4	2	3	1	2	0	2	3	1	4	4	0	1
A11	1	0	3	-	1	0,1	3	1	0	0,1	0	0	1,4	3	1	1
A12	2	0	0	3	0	1	1	1,2	2,3	0	3	1	0	4	2	1
A13	0	0	1	2	1	1	2	1	0	0	1	0	1	0	0	0
A14	1	0	2	4	0	4	1	0,4	0,1	1	0	0	4	4	1	0
A15	4	0	4	4	4	2	1	2	2	1	2	2	3	4	2	3
A16	1	1	1	3	1	1	3	2	1	3	1	2	1	1	1	2
A17	0	1	0	2	0	1	1	1	0	1	0	0	1	4	0	2
A18	0	0	1	1	0	1	2	1	1	0	0	0	1	3	0	1

PID	PQ_o4-pre	PQ_o5-pre	PQ_s1-pre	PQ_s2-pre	PQ_s3-pre	PQ_s4-pre	PQ_s5-pre	PF_g1-pre	PF_g2-pre	PF_g3-pre	PF_g4-pre	PF_g5-pre	PF_g6-pre	PF_s1-pre	PF_s2-pre	PF_s3-pre
A19	0	0	0	1	1	0	2	0	4	0	0	1	0	4	0	2
A20	1	0	2	1	0,2		1	1	0	0	0	0	1	2	0	1
A21	1	0	1	1	1	1	1	0	0	0	0	0	1	4	0	2
A22	0	0	0	2	1	0	1	1	0	0	0	0	4	0	0	1

(Continuation of QOL data)

PID	PF_s4-pre	PF_s5-pre	PF_s6-pre	PF_cf1-pre	PF_cf2-pre	PF_cf3-pre	PF_cf4-pre	PF_cf5-pre	PF_cf6-pre	PQ_h1-post	PQ_h2-post	PQ_h3-post	PQ_h4-post	PQ_h5-post	PQ_h6-post	PQ_h7-post	PQ_h8-post
A01	2	4	1	0	2	1	1	1	1	0	1	2	3	0	0	1	0
A02	2		2	3	3	1	2	1	2	-	-	-	-	-	-	-	-
A03	4	4	4	2	4	4	3	1	3	2	2	2	3	0	0	0	0
A04	2	4	4	4	4	4	4	2	3	2	2	2	3	0	0	0	0
A05	2	2	1	1	1	1	2	1	1	2	0	2	0	0	0	0	2
A06	4	2	2	0	1	1	1	1	1	4	0	0	2	0	0	1	0
A07	2	2	2	4	4	1	2	1	1	2	2	2	2	0	2	2	2
A08	1	3	3	2	1,4	1	3	4	3	0	2	2	2	0	0	2	3
A09	3	4	3	4	0	0	3	4	2	-	-	-	-	-	-	-	-
A10	2	1	4	0	2	1	3	4	2	0	2	0	1	0	0	2	3
A11	1	2	4	4	4	2	2	4	1	0	1	0	2	0	0	2	2
A12	3	0	1	0	0	0	4	4	1	4	1	2	1	0	1	2	1
A13	1	2	0	0	1	1	0	0	1	1	4	0	0	0	0	1	0
A14	1	2	4	4	4	3	3	4	1	0	4	4	0	0	2	2	0
A15	2	4	4	4	4	4	4	4	4	0	0	0	4	0	4	4	4
A16	1	1	1	23	3	2	1	2	3	0	2	2	2	0	2	2	0
A17	1	1	2	1	1	3	1	1	0	0	0	0	1	0	0	2	2
A18	1	1	3	2	0	3	0	1	0	-	-	-	-	-	-	-	-
A19	3	0	0	0	2	3	1	1	1	-	-	-	-	-	-	-	-
A20	1	3	2	2	1	2	3	2	1	0	0	1	0	0	0	2	0
A21	1	1	1	0	1	1	0	1	0	0	0	0	2	0	0	0	1
A22	1	0	1	1	4	2	1	1	0	0	0	0	0	0	0	2	0

(Continuation of QOL data)

PID	PQ_f1-post	PQ_f2-post	PQ_f3-post	PQ_f4-post	PQ_f5-post	PQ_o1-post	PQ_o2-post	PQ_o3-post	PQ_o4-post	PQ_o5-post	PQ_s1-post	PQ_s2-post	PQ_s3-post	PQ_s4-post	PQ_s5-post	PF_g1-post	PF_g2-post
A01	3	0	2	0	3	0	0	1	0	0	0	3	1	1	0	0	1
A02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A03	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PID	PQ_f1-post	PQ_f2-post	PQ_f3-post	PQ_f4-post	PQ_f5-post	PQ_o1-post	PQ_o2-post	PQ_o3-post	PQ_o4-post	PQ_o5-post	PQ_s1-post	PQ_s2-post	PQ_s3-post	PQ_s4-post	PQ_s5-post	PF_g1-post	PF_g2-post
A04	3	0	0	0	1	0	0,3	1	1	2	2	1	1	0	0	1	0
A05	2	1	0	2	3	0	0	0	0	1	0	4	4	1	1	1	0
A06	0	2	4	0	4	0	4	1	0	0	0	0	0	0	0	1	0
A07	-	1	2	0	1	2	1	2	1	1	2	1	1	1	1	1	1
A08	3	2	2	0	3	0	2	2	2	1	2	2	2	2	0	2	2
A09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A10	0	3	0	1	3	3	2	3	2	1	0	2	0	2	0	0	4
A11	2	2	4	0	2	0	0	1	2	2	2	2	2	2	0	4	2
A12	0	1	0	3	1	1	0	0	1	0	3	2	4	2	3	4	2
A13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A14	0	4	2	0	4	2	0	3	0	2	0	4	1	1	4	4	1
A15	4	0	0	4	4	0	0	4	3	0	4	4	4	4	0	1	2
A16	2	1	1	1	1	2	0	2	0	1	1	2	2	0	1	1	0
A17	0	2	0	2	2	0	2	0	0	0	0	2	2	0	2	0	0
A18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A20	0	1	0	0	1	0	0	0	1	0	0	2	0	1	0	0	2
A21	0	0	2	1	2	0	0	1	0	0	2	2	3	1	0	0	0
A22	1	0	3	1	1	0	0	0	0	0	3	4	2	0	0	0	0

(Continuation of QOL data)

PID	PF_g3-post	PF_g4-post	PF_g5-post	PF_g6-post	PF_s1-post	PF_s2-post	PF_s3-post	PF_s4-post	PF_s5-post	PF_s6-post	PF_cf1-post	PF_cf2-post	PF_cf3-post	PF_cf4-post	PF_cf5-post	PF_cf6-post
A01	2	0	1	0	2	0	0	1	3	0	0	1	2	1	0	3
A02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A03	2	0	3	0	0	0	0	0	2	1	0	3	3	1	1	2
A04	0	1	3	0	0	0	0	0	2	1	0	3	3	1	1	1
A05	0	2	0	2	2	0	1	1	2	4	4	4	1	3	1	4
A06	1	0	0	0	2	0	4	3	0	0	2	0	2	0	1	0
A07	1	1	1	0	0	0	0	1		2	1	1	1	1	1	1
A08	0	2	0	4	4	2	0	0	2	2	2	4	2	2	2	4
A09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A10	2	0	3	2	4	0	2	3	3	3	0	1	4	4	3	4
A11	0	0	3	3	4	2	0	1	4	2	1	2	0	4	2	0
A12	0	3	2	2	2	2	0	1	2	3	4	3	0	2	1	3
A13	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
A14	0	0	4	0	4	0	0	1	3	4	4	0	3	0	2	1
A15	0	0	4	4	4	2	4	4	4	4	4	4	4	4	4	4

PID	PF_g3-post	PF_g4-post	PF_g5-post	PF_g6-post	PF_s1-post	PF_s2-post	PF_s3-post	PF_s4-post	PF_s5-post	PF_s6-post	PF_cf1-post	PF_cf2-post	PF_cf3-post	PF_cf4-post	PF_cf5-post	PF_cf6-post
A16	1	0	1	0	1	0	1	1	0	0	1	1	2	1	0	0
A17	0	2	0	0	4	0	2	2	4	2	2	0	0	0	2	0
A18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A20	0	0	1	0	0	0	1	0	4	0	0	2	0	2	0	4
A21	0	0	1	0	3	0	1	1	1	1	1	0	1	0	0	0
A22	0	0	1	0	2	0	0	1	0	0	0	3	4	1	3	2

### CDI data

PID	CDI_1-pre	CDI_2-pre	CDI_3-pre	CDI_4-pre	CDI_5-pre	CDI_6-pre	CDI_7-pre	CDI_8-pre	CDI_9-pre	CDI_10-pre	CDI_11-pre	CDI_12-pre	CDI_13-pre	CDI_14-pre	CDI_15-pre	CDI_16-pre
A01	0	2	1	1	1	2	2	0	2	1	0	2	0	0	0	1
A02	1	2	1	1	1	2	2	0	2	1	0	2	0	0	0	1
A03	2	2	1	1	1	2	2	0	2	1	0	2	0	0	0	1
A04	2	2	0	1	1	2	2	0	2	1	0	2	0	0	0	1
A05	1	2	1	1	1	2	2	0	2	1	0	2	0	0	0	1
A06	1	2	1	1	1	2	2	0	2	1	0	2	0	0	0	1
A07	1	2	1	1	1	2	2	0	2	1	0	2	0	0	0	1
A08	0	2	0	0	0	2	2	0	2	1	0	2	0	2	2	0
A09	0	2	1	0	2	2	2	0	2	2	0	2	0	2	2	1
A10	0	2	0	2	2	2	2	0	2	2	0	2	0	0	2	1
A11	0	1	0	0	0	2	2	0	2	2	0	2	0	0	2	1
A12	0	2	2	2	0	2	1	0	2	1	0	1	0	1	2	0
A13	0	2	0	1	0	0	1	0	2	1	0	2	0	2	2	0
A14	0	2	0	0	0	2	2	0	2	1	0	2	0	2	2	0
A15	1	1	2	2	0	1	1	0	2	1	0	2	1	2	1	1
A16	1	2	0	0	0	2	2	0	2	1	0	2	0	2	2	0
A17	1	2	0	0	0	2	1	0	2	1	0	2	0	2	2	0
A18	0	2	0	0	0	2	2	0	2	1	0	2	0	2	2	0
A19	0	2	0	0	0	2	2	0	2	1	0	2	0	2	2	1
A20	0	2	0	0	0	2	2	0	2	1	0	2	0	2	2	0
A21	0	2	0	0	0	2	2	0	2	1	0	2	0	2	2	0
A22	1	2	0	0	0	2	1	0	2	1	0	2	0	2	2	0



(Continuation of CDI data)

PID	CDI_17-pre	CDI_18-pre	CDI_19-pre	CDI_20-pre	CDI_21-pre	CDI_22-pre	CDI_23-pre	CDI_24-pre	CDI_25-pre	CDI_26-pre	CDI_27-pre	CDI_28-pre	CDI_1-post	CDI_2-post	CDI_3_post	CDI_4-post
A01	2	1	1	2	1	0	2	2	1	1	2	0	0	1	1	0
A02	2	1	1	2	1	0	2	2	1	1	2	1	-	-	-	-
A03	2	1	1	2	1	0	2	2	0	1	2	1	0	2	0	0
A04	2	1	1	2	1	0	2	2	0	1	2	2	0	2	0	0
A05	2	1	1	2	1	0	2	2	1	1	2	0	2	2	1	0
A06	2	1	1	2	1	0	2	2	0	1	2	0	1	1	1	0
A07	2	1	1	2	1	0	2	2	1	1	2	0	0	1	1	1
A08	2	0	0	2	0	0	2	2	0	1	2	0	0	2	0	1
A09	2	1	0	2	0	0	2	2	1	1	2	1	-	-	-	-
A10	2	0	2	2	1	0	2	2	0	1	2	1	0	1	0	0
A11	2	1	0	2	0	0	2	2	0	1	2	1	1	1	1	0
A12	1	0	1	2	0	0	2	2	0	1	1	2	1	0	0	0
A13	1	0	0	2	0	0	2	2	0	1	2	1	2	2	0	0
A14	0	0	0	2	0	0	2	2	2	2	2	2	0	2	1	0
A15	2	2	0	2	0	0	2	2	1	1	1	2	1	1	1	1
A16	0	0	1	0	0	0	2	2	0	1	2	2	0	2	0	1
A17	0	0	0	2	0	0	2	2	0	1	2	0	1	0	0	1
A18	0	0	0	2	0	0	2	2	0	1	2	0	-	-	-	-
A19	0	0	1	2	0	0	2	2	0	2	2	2	-	-	-	-
A20	0	0	0	2	0	0	2	2	0	1	2	0	0	2	0	0
A21	0	0	0	2	0	0	2	2	0	1	2	0	0	2	1	1
A22	2	1	0	2	0	0	2	2	1	0	2	2	0	0	1	0

(Continuation of CDI data)

PID	CDI_5-post	CDI_6-post	CDI_7-post	CDI_8-post	CDI_9-post	CDI_10-post	CDI_11-post	CDI_12-post	CDI_13-post	CDI_14-post	CDI_15-post	CDI_16-post	CDI_17-post	CDI_18-post	CDI_19-post	CDI_20-post
A01	1	2	1	0	1	1	0	1	1	0	0	0	2	1	0	1
A02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A03	0	2	2	0	2	2	0	1	0	0	2	0	2	0	0	2
A04	1	2	2	0	2	0	0	2	0	0	2	0	2	0	0	2
A05	2	2	0	1	0	0	0	0	0	1	0	0	0	0	0	1
A06	0	2	1	0	2	0	0	0	2	2	2	0	2	2	2	2
A07	1	2	1	1	1	1	0	2	0	1	2	0	0	0	1	2
A08	0	2	1	0	2	2	2	1	0	2	2	0	0	2	2	2
A09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A10	0	2	2	0	0	1	0	2	0	1	2	0	1	1	1	2
A11	0	0	1	1	2	2	0	1	0	0	2	0	1	2	0	2
A12	1	2	1	0	2	0	0	2	1	1	2	0	2	0	0	1

PID	CDI_5-post	CDI_6-post	CDI_7-post	CDI_8-post	CDI_9-post	CDI_10-post	CDI_11-post	CDI_12-post	CDI_13-post	CDI_14-post	CDI_15-post	CDI_16-post	CDI_17-post	CDI_18-post	CDI_19-post	CDI_20-post
A13	0	2	2	0	1	2	0	2	0	2	2	0	2	0	0	2
A14	2	2	0	1	1	1	0	2	1	2	2	1	2	1	2	1
A15	2	2	2	0	2	0	0	0	1	0	1	1	1	2	2	1
A16	1	2	1	0	2	2	1	2	0	2	2	0	2	1	2	1
A17	0	2	2	1	2	1	0	0	0	2	2	0	2	0	0	0
A18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A20	0	2	2	1	2	2	0	2	0	0	1	0	0	0	0	2
A21	1	2	1	0	2	1	0	2	0	1	2	0	2	0	0	2
A22	1	1	2	1	2	2	0	1	1	1	2	0	2	0	0	1

(Continuation of CDI data)

PID	CDI_21-post	CDI_22-post	CDI_23-post	CDI_24-post	CDI_25-post	CDI_26-post	CDI_27-post	CDI_28-post
A01	0	0	0	2	0	2	2	1
A02	-	-	-	-	-	-	-	-
A03	1	0	0	2	0	2	2	0
A04	0	0	0	1	0	0	1	0
A05	1	2	2	2	0	1	2	1
A06	0	0	0	2	0	2	2	2
A07	1	0	1	2	0	0	2	1
A08	0	0	1	2	0	0	2	0
A09	-	-	-	-	-	-	-	-
A10	0	0	2	1	1	0	2	0
A11	0	0	2	2	0	0	2	2
A12	0	0	2	2	0	0	2	1
A13	0	0	2	2	0	2	2	0
A14	1	1	1	2	1	1	2	0
A15	1	1	2	0	1	0	0	2
A16	0	1	1	1	1	1	1	1
A17	0	0	2	2	1	0	2	1
A18	-	-	-	-	-	-	-	-
A19	-	-	-	-	-	-	-	-
A20	0	0	2	2	0	0	2	0
A21	0	2	1	2	0	1	1	0
A22	0	1	2	2	0	1	1	1

## Cognitive functions data

UID	DSF_pre	DSF_post	DSB_pre	DSB_post	DS_TOT-pre	DS_TOT_post	Stroop-WS-pre	Stroop_WS_post	Stroop_CS-pre	Stroop_CS_post	Stroop_CWS-pre	Stroop_CWS_post	SDMT-pre	SDMT_post	SLCT_net_pre	SLCT_net_post
A01	9	7	3	5	12	12	56	60	35	46	19	28	18	37	0	22
A03	-	-	-	-	-	-	-	-	-	-	-	-	-	20	-	-
A04	-	-	-	-	-	-	-	-	-	-	-	-	0	37	0	21
A05	4	2	1	2	5	4	-	-	-	-	-	-	-	-	-	11
A06	-	-	-	-	-	-	-	-	-	-	-	-	6	37	0	21
A07	7	6	0	2	7	8	-	-	-	-	-	-	5	29	0	14
A08	8	4	1	3	9	7	2	15	37	17	40	13	18	39	-2	27
A10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	13
A11	9	5	3	4	12	9	-	-	-	-	-	-	20	48	0	19
A12	6	6	0	3	6	9	-	-	-	-	-	-	26	39	1	32
A13	7	10	2	4	9	14	51	58	38	20	30	20	41	64	0	39
A14	4	5	1	5	5	10	19	13	36	20	34	3	21	28	0	27
A15	8	7	3	3	11	10	73	78	44	44	32	33	28	54	3	32
A16	-	-	-	-	-	-	-	-	-	-	-	-	21	43	-	27
A17	6	4	0	1	6	5	22	28	19	17	15	18	37	55	0	38
A20	7	5	4	4	11	9	63	119	30	59	17	16	22	60	0	50
A21	9	7	4	14	13	21	34	68	31	67	19	43	19	51	0	36
A22	9	10	2	3	11	13	48	59	28	44	23	15	19	51	0	40

## Appendix IX TYPICAL 'R' SOFTWARE CODES

R software versions 3.3.3 to 3.5.2 were used for analysis. Code for developed for all the calculations, graphs. A sample of typicalcodes, and corresponding outputs are given here.

### RC1 Immune Analysis

```
library(readxl)
sneha18G <-read_excel("G:/RC1/ANALYSIS18/sneha18G.xlsx")
attach(sneha18G)

#Immune parameters (in separate file)
aov(CD4~Time*Group)->CD4txg
anova(CD4txg)

## Analysis of Variance Table
##
## Response: CD4
##           Df  Sum Sq Mean Sq F value Pr(>F)
## Time       1   1251    1251  0.0085 0.9266
## Group      1   5859    5859  0.0398 0.8421
## Time:Group 1  31110  31110  0.2116 0.6463
## Residuals 136 19997014 147037

aov(CD8~Time*Group)->CD8txg
anova(CD8txg)

## Analysis of Variance Table
##
## Response: CD8
##           Df  Sum Sq Mean Sq F value Pr(>F)
## Time       1   559    559  0.0023 0.9616
## Group      1  90831  90831  0.3786 0.5394
## Time:Group 1  23795  23795  0.0992 0.7533
## Residuals 132 31668607 239914

aov(CD4byCD8~Time*Group)->CD4byCD8txg
anova(CD4byCD8txg)

## Analysis of Variance Table
##
## Response: CD4byCD8
##           Df  Sum Sq  Mean Sq F value Pr(>F)
## Time       1  0.0249 0.024939  0.2040 0.6523
## Group      1  0.0214 0.021436  0.1753 0.6761
## Time:Group 1  0.0055 0.005524  0.0452 0.8320
## Residuals 132 16.1406 0.122277

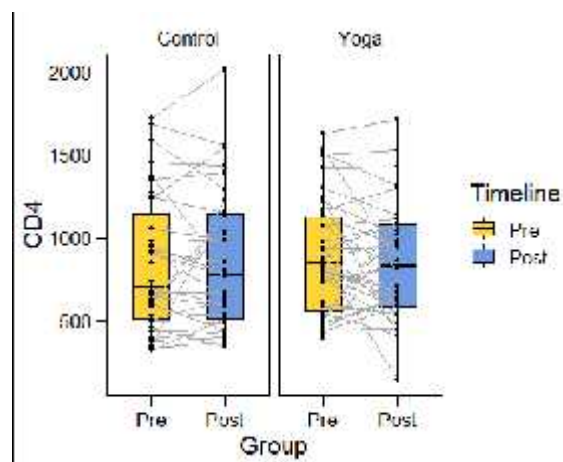
library(ggpubr)
```

```

library(scales)
library(ggthemes)
sneha18G <- read_excel("G:/RC1/ANALYSIS18/sneha18g.xlsx")
#hcols<-c("red", "orange")
ggpaired(sneha18G, x = "Time", y = "CD4", fill = "Time", line.color = "dark
gray", line.size = 0.2, facet.by = "Group", palette = "simpsons", xlab
="Group", ylab = "CD4", ggtheme = theme_base()) + theme(axis.line
=element_line(size = 0.5, linetype = "solid"), panel.background
=element_rect(fill = NA)) + theme(legend.position = "right", legend.direction
="vertical")

## Warning: Removed 6 rows containing non-finite values (stat_boxplot).
## Warning: Removed 6 rows containing missing values (geom_path).
## Warning: Removed 6 rows containing missing values (geom_point).

```



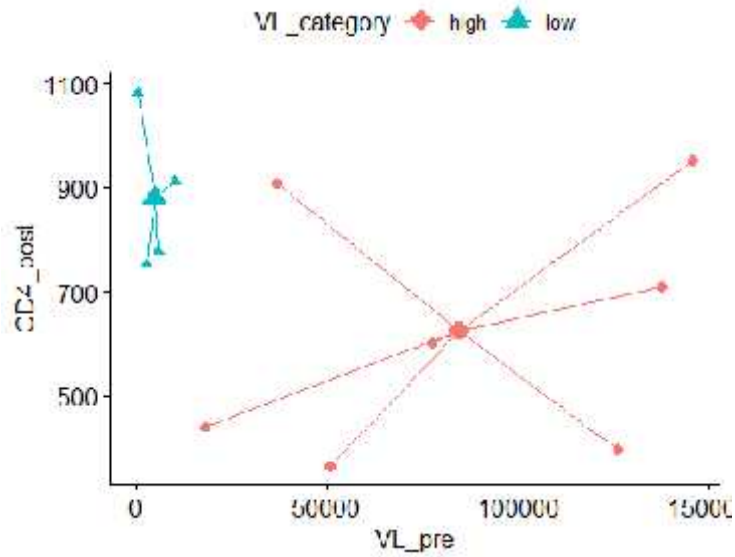
## RC2 VL based analysis

```

library(readxl)
AVLbase <- read_excel("G:/RC2/AMMAMANE549forR.xlsx")
library(ggpubr)

ggscatter(AVLbase, x = "VL_pre", y = "CD4_post", color = "VL_category",
shape = "VL_category", mean.point = TRUE) + stat_stars(aes(color =
VL_category))

```

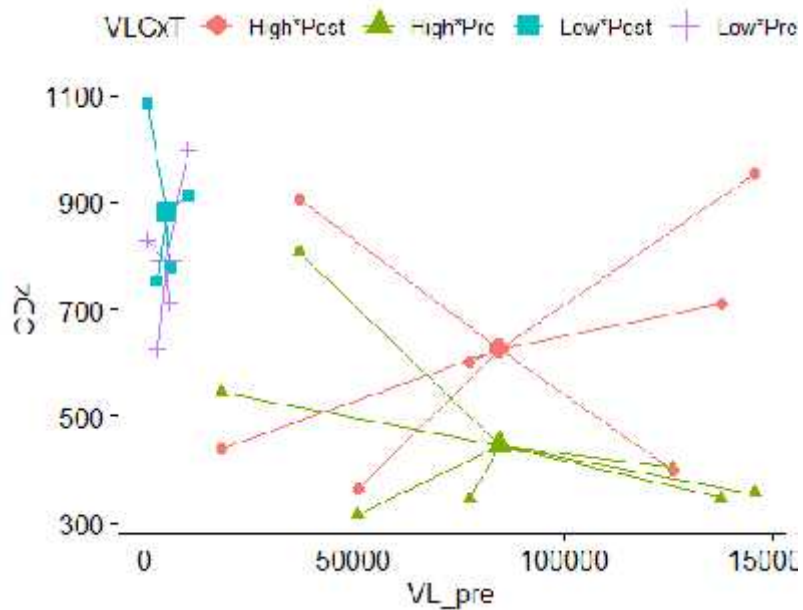


## RC2 VL based analysis

```
library(readxl)
AVLbaseG <- read_excel("G:/RC2/AMMAMANEgforR.xlsx")
attach(AVLbaseG)
library(ggpubr)

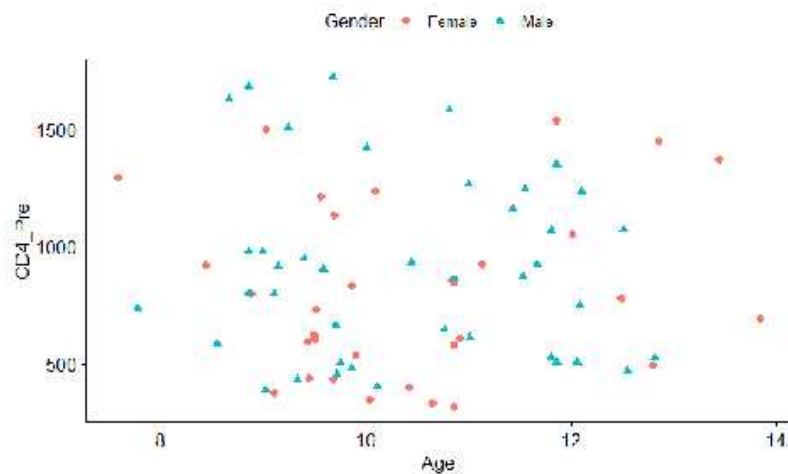
## Loading required package: ggplot2
## Loading required package: magrittr

ggscatter(AVLbaseG, x = "VL_pre", y = "CD4", color = "VLCxT", shape = "VLCxT", mean.point = TRUE) + stat_stars(aes(color = VLCxT))
```



## CD4\_Pre vs. age correlation test

```
library(readxl)
library(ggplot2)
library(ggpubr)
## Loading required package: magrittr
sneha18 <- read_excel("G:/RC1/ANALYSIS18/sneha18.xlsx")
attach(sneha18)
ggscatter(data=sneha18, x="Age", y="CD4_Pre", color="Gender", shape="Gender")
```



```
#For both genders
cor.test(formula=~Age+CD4Pre, method="pearson", data=sneha18)

##
## Pearson's product-moment correlation
##
## data: Age , CD4Pre
## t = -0.022804, df = 72, p-value = 0.9819
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.2310443 0.2259500
## sample estimates:
##          cor
## -0.002687454

#For Males
cor.test(formula=~Age+CD4Pre, method="pearson", data=sneha18,
subset=Gender=="M")
```

```
##
## Pearson's product-moment correlation
##
## data: Age , CD4Pre
## t = -0.5483, df = 40, p-value = 0.5865
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.3803172 0.2234271
## sample estimates:
##          cor
## -0.08636925
```

*#For Females*

```
cor.test(formula=~Age+CD4Pre,method="pearson",data=sneha18,
subset=Gender=="F")
```

```
##
## Pearson's product-moment correlation
##
## data: Age , CD4Pre
## t = 0.64171, df = 30, p-value = 0.5259
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.2421561 0.4469233
## sample estimates:
##          cor
## 0.1163634
```

## AN-AY Analysis

```
library(readxl)
library(ggplot2)
library(ggpubr)

## Loading required package: magrittr

sneha18A <-read_excel("G:/RC1/ANALYSIS18/sneha18.xlsx",na="NA")
attach(sneha18A)

#To change Group == as Yoga or Control as case may be
sneha18<-subset(sneha18A, Group == "Yoga"&ART_Pre=="Yes")
t.test(CD4_Post,CD4_Pre, data=sneha18, conf.level =0.95, paired =TRUE)

##
## Paired t-test
##
## data: CD4_Post , CD4_Pre
## t = -0.47393, df = 66, p-value = 0.6371
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## -88.07297 54.28193
## sample estimates:
## mean of the differences
## -16.89552
```



## Appendix X RESULTS OF ART STATUS BASED ANALYSIS

(With reference to section 6.1)

**Table X.1: Change in immune parameters between ART, non-ART groups**

Parameter			Mean				Diff. (Post- Pre)	p (within group)	P (Between AN & AY)	
			Pre	Diff. (AY-AN)	Post	Diff. (AY-AN)			Pre	Post
CD4 count (counts/-L)	YG	AN	654.8	331.8	607.5	355.6	-47.3↓4 (-7.2%)	0.613	0.0017**	0.0001***
		AY	986.6		963.1		-23.5↓3 (-2.4%)			
	CG	AN	701.7	269.6	700.2	331.9	-7.5↓2 (-1.06%)	0.904	0.049*	0.032*
		AY	971.3		1032.1		60.8↑1 (6.46%)	0.529		
CD8 count (counts/-L)	YG	AN	1432.6	-125.5	1321.7	0.7	-110.9↓ (-7.7%)	0.830	0.529	0.996
		AY	1307.1		1322.4		15.3↑ (1.2%)			
	CG	AN	1311.4	-83.7	1411.6	-234.8	100.2↑ (7.6%)	0.788	0.600	0.1647
		AY	1227.7		1176.8		-50.9↓ (-4.1%)	0.947		
CD4/CD8 ratio	YG	AN	0.501	0.333	0.515	0.255	0.014↑2 (2.8%)	1	0.012*	0.008**
		AY	0.834		0.770		-0.064↓4 (-7.7%)			
	CG	AN	0.574	0.236	0.531	0.31	-0.043↓3 (-7.5%)	0.779	0.026*	0.008**
		AY	0.810		0.841		0.031↑1 (3.8%)	0.707		

**Legend:**  
AN = ART No = non-ART group  
AY = ART Yes = ART group  
↑=Increased compared to pre (favorable)  
↓=Decreased compared to pre (not favorable)  
↑=Increased compared to pre  
↓=Decreased compared to pre

**Table X.2: Change in HRQOL parameters between ART, non-ART groups**

Parameter			Mean				Diff. (Post-Pre)	p (within group)	P (Between AN & AY)	
			Pre	Diff. (AY-AN)	Post	Diff. (AY-AN)			Pre	Post
Physical functioning score (PQ_PF)	YG	AN	637.0	41.1	510.2	108.8	-126.8↓4 (-19.9%)	0.152	0.400	0.306
		AY	678.1		619.0		-59.1↓3 (-8.7%)			
	CG	AN	595.2	33.3	698.0	-39.4	102.8↑1 (17.3%)	0.08		
		AY	628.5		658.6		30.1↑2 (4.8%)			
Emotional functioning score (PQ_EF)	YG	AN	338.6	31.3	295.4	45.9	-43.2↓4 (-12.8%)	0.487	0.502	0.267
		AY	369.9		341.3		-28.6↓3 (-7.7%)			
	CG	AN	285.4	44.9	353.8	-28.8	68.4↑1 (24%)	0.106		
		AY	330.3		325.0		-5.3↓2 (-1.6%)			
Social functioning score (PQ_SocF)	YG	AN	390.9	29	325.0	34.2	-65.9↓4 (-16.9%)	0.272	0.365	0.560
		AY	419.9		359.2		-60.7↓3 (-14.5%)			
	CG	AN	414.5	-11	359.6	26.3	-54.9↓2 (-13.2%)	0.154		
		AY	403.5		385.9		-17.6↓1 (-4.4%)			
School functioning score (PQ_SchF)	YG	AN	345.4	57.7	277.2	29.3	-68.2↓3 (-19.7%)	0.223	0.093	0.551
		AY	403.1		306.5		-96.6↓4 (-24%)			
	CG	AN	368.7	23.7	305.7	21.2	-63↓2 (-17.1%)	0.093		
		AY	392.4		326.9		-65.5↓1 (-16.7%)			
Total psychosocial score (PQ_PSF_Tot)	YG	AN	1075.0	118	897.7	107.2	-177.3↓4 (-16.5%)	0.281	0.231	0.434
		AY	1193.0		1004.9		-188.1↓3 (-15.8%)			
	CG	AN	1068.7	50.5	1019.2	18.6	-49.5↓1 (-4.6%)	0.427		
		AY	1119.2		1037.8		-81.4↓2 (-7.3%)			
Total HRQOL score (PQ_Tot)	YG	AN	1712.0	159.1	1408.0	216	-304↓4 (-17.8%)	0.177	0.228	0.328
		AY	1871.1		1624.0		-247.1↓3 (-13.2%)			

Parameter			Mean				Diff. (Post-Pre)	p (within group)	P (Between AN & AY)	
			Pre	Diff. (AY-AN)	Post	Diff. (AY-AN)			Pre	Post
CG	AN	1664.0	83.7	1717.3	-20.8	53.3↑1 (3.2%)	0.850	0.558	0.867	
	AY	1747.7		1696.5		-51.2↓2 (-2.9%)				

**Table X.3: Change in FRQOL parameters between ART, non-ART groups**

Parameter			Mean				Diff. (Post-Pre)	p (within group)	p (Between AN & AY)	
			Pre	Diff. (AY-AN)	Post	Diff. (AY-AN)			Pre	Post
General fatigue score (PF_GF)	YG	AN	29.6	469.5	48.7	-5.5↓4 (-1.2%)	0.866	0.412	0.204	
		AY		504.6		518.2				13.6↑1 (2.7%)
	CG	AN	-29.9	490.3	-29.4	5.8↑2 (1.2%)	0.970	0.416	0.464	
		AY		454.6		460.9				6.3↑3 (1.4%)
Sleep fatigue score (PF_SF)	YG	AN	45	409.1	48.5	-56.8↓4 (-12.2%)	0.179	0.283	0.229	
		AY		510.9		457.6				-53.3↓3 (-10.4%)
	CG	AN	14	465.3	-27.5	27↑1 (6.2%)	0.684	0.757	0.479	
		AY		452.3		437.8				-14.5↓2 (-3.2%)
Cognitive fatigue score (PF_CF)	YG	AN	26.8	3s55.4	90.6	-86.8↓4 (-19.6%)	0.093	0.525	0.121	
		AY		469.0		446.0				-23↓3 (-4.9%)
	CG	AN	-11.3	449.2	-28.6	20.1↑1 (4.7%)	0.763	0.787	0.515	
		AY		417.8		420.6				2.8↑2 (0.7%)
Total FRQOL (PF_Tot)	YG	AN	101.5	1234.0	187.8	-149.1↓4 (-10.8%)	0.053	0.317	0.067	
		AY		1484.6		1421.8				-62.8↓3 (-4.2%)
	CG	AN	-27.2	1405.0	-85.7	53↑1 (3.9%)	0.706	0.791	0.344	
		AY		1324.8		1319.3				-5.5↓2 (-0.4%)

**Table X.4: Change in CDI parameters between ART , non-ART groups**

Parameter			Mean				Diff. (Post-Pre)	p (within group)	p (Between AN & AY)	
			Pre	Diff. (AY-AN)	Post	Diff. (AY-AN)			Pre	Post
CDI_EP	YG	AN	7.4	-0.9	8.30	-0.38	0.9↑1 (12.2%)	0.689	0.710	0.840
		AY	6.5		7.92		1.42↑3 (21.8%)			
	CG	AN	4.36	2.14	7.18	0.6	2.82↑4 (64.7%)	0.114	0.233	0.734
		AY	6.50		7.78		1.28↑2 (19.7%)			
CDI_FP	YG	AN	6.60	0.54	7.50	0.57	0.9↑3 (13.6%)	0.665	0.801	0.635
		AY	7.14		8.07		0.93↑2 (13%)			
	CG	AN	6.18	-0.18	6.63	0.94	0.45↑1 (7.3%)	0.797	0.916	0.557
		AY	6.00		7.57		1.57↑4 (26.2%)			
CDI_IP	YG	AN	2.30	0.41	2.20	-0.49	-0.1↓4 (-4.3%)	0.892	0.628	0.330
		AY	2.71		1.71		-1↓2 (-36.9%)			
	CG	AN	2.72	0.06	1.63	0.72	-1.09↓1 (-40.1%)	0.173	0.949	0.331
		AY	2.78		2.35		-0.43↓3 (-15.5%)			
CDI_NMPS	YG	AN	4.50	-0.15	4.50	-0.86	0(4) (0%)	1	0.891	0.588
		AY	4.35		3.64		-0.71↓3 (-16.3%)			
	CG	AN	4.72	0.35	2.45	0.62	-2.27↓1 (-48.1%)	0.046*	0.759	0.507
		AY	5.07		3.07		-2↓2 (-39.4%)			
CDI_NSE	YG	AN	2.90	-0.05	3.80	-0.23	0.9↑4 (31%)	0.484	0.970	0.831
		AY	2.85		3.57		0.72↑3 (25.3%)			
	CG	AN	1.90	1.52	2.45	0.26	0.55↑2 (28.9%)	0.517	0.156	0.733
		AY	3.42		2.71		-0.71↓1 (-20.8%)			
CDI_LINE	YG	AN	4.30	0.12	5.30	1.05	1↑1 (23.3%)	0.581	0.931	0.388
		AY	4.42		6.35		1.93↑2 (43.7%)			

Parameter			Mean				Diff. (Post-Pre)	p (within group)	p (Between AN & AY)	
			Pre	Diff. (AY-AN)	Post	Diff. (AY-AN)			Pre	Post
	CG	AN	3.45	-0.24	5.00	0.21	1.55↑3 (44.9%)	0.216	0.814	0.854
		AY	3.21		5.21		2↑4 (62.3%)			
CDI_Total	YG	AN	14.0	-2.8	15.80	-2.63	1.8↑1 (12.9%)	0.660	0.486	0.367
		AY	11.2		13.17		1.97↑2 (17.6%)			
	CG	AN	10.54	1.96	13.8	1.5	3.26↑4 (30.9%)	0.12	0.558	0.617
		AY	12.50		15.3		2.8↑3 (22.4%)			

**Table X.5: Change in cognitive functions between ART , non-ART groups**

Parameter			Mean				Diff. (Post-Pre)	p (within group)	p (Between AN & AY)	
			Pre	Diff. (AY-AN)	Post	Diff. (AY-AN)			Pre	Post
DSF	YG	AN	6.10	0.76	6.81	0.05	0.71↑1 (11.6%)	0.111	0.168	0.927
		AY	6.86		6.86		0(4) (0%)			
	CG	AN	6.61	0.24	7.26	-0.33	0.65↑2 (9.8%)	0.024*	0.638	0.562
		AY	6.85		6.93		0.08↑3 (1.2%)			
DSB	YG	AN	3.10	-0.7	3.81	-0.86	0.71↑2 (22.9%)	0.397	0.153	0.199
		AY	2.40		2.95		0.55↑3 (22.9%)			
	CG	AN	2.92	-0.07	4.06	-0.86	1.14↑1 (39%)	0.017*	0.893	0.103
		AY	2.85		3.20		0.35↑4 (12.3%)			
DSTot	YG	AN	9.20	0.07	10.6	-0.79	1.4↑2 (15.2%)	0.177	0.929	0.447
		AY	9.27		9.81		0.54↑3 (5.8%)			
	CG	AN	9.53	0.18	11.3	-1.2	1.77↑1 (18.6%)	0.005**	0.824	0.174
		AY	9.71		10.1		0.39↑4 (4%)			
SW S	YG	AN	47.8	-7.3	55.0	-9.9	7.2↑1 (15.1%)	0.119	0.25 3	0.05 0*

Parameter			Mean				Diff. (Post-Pre)	p (within group)	p (Between AN & AY)	
			Pre	Diff. (AY-AN)	Post	Diff. (AY-AN)			Pre	Post
	CG	AY	40.5		45.1		4.6↑2 (11.4%)	0.028*		
		AN	54.0	-6.5	57.0	-5.6	3↑4 (5.6%)	0.202	0.369	0.317
		AY	47.5		51.4		3.9↑3 (8.2%)	0.066		
SCS	YG	AN	44.0	-6	46.3	-5.3	2.3 ↑2 (5.2%)	0.521	0.126	0.147
		AY	38.0		41.0		3↑1 (7.9%)	0.044*		
	CG	AN	46.3	-2.6	47.4	-3	1.1↑3 (2.4%)	0.525	0.343	0.351
		AY	43.7		44.4		0.7↑4 (1.6%)	0.262		
SCWS	YG	AN	24.7	-1	27.2	1.5	2.5↑3 (10.1%)	0.463	0.658	0.541
		AY	23.7		28.7		5.0↑1 (21.1%)	0.005**		
	CG	AN	27.6	-2.9	28.8	-1.1	1.2↑4 (4.3%)	0.858	0.131	0.673
		AY	24.7		27.7		3↑2 (12.1%)	0.160		
SDMT	YG	AN	31.9	-2.7	36.3	-5.9	4.4↑1 (13.8%)	0.221	0.268	0.102
		AY	29.2		30.4		1.2↑4 (4.1%)	0.331		
	CG	AN	33.0	-1.9	36.0	-2.2	3↑2 (9.1%)	0.030*	0.515	0.368
		AY	31.1		33.8		2.7 ↑3 (8.7%)	0.199		



Variables	Baseline status			Post intervention status		
	RC1 (Yoga group)	RC2	Relatively poorer in...	RC1 (Yoga group)	RC2	Relatively more favorable in...
PF_SF	492.6 ± 102.6	392.2 ± 137.68	RC2↓	-61.5 ↓ (-12.4%)	90.8↑* (30.1%)	RC2↑
PF_CF	458.1 ± 107.6	358.3 ± 150.24	RC2↓	-60.2 ↓ (-13.0%)	52.7↑ (17.2%)	RC2↑
PF_Tot	1443.3 ± 254.8	1208.9 ± 344.13	RC2↓	-118.5 ↓* (-8.1%)	184.6↑* (18%)	RC2↑

**Legend:**

↑=Increased compared to pre (favorable)  
 ↓=Decreased compared to pre (not favorable)  
 ↑= Increased compared to pre  
 ↓=Decreased compared to pre  
 \*\*= Significant with p<0.01  
 \*=Significant with p<0.05  
 ↓/↓=Poorer (at baseline)  
 ↑/↑=Improved (post intervention)

**Table XI.8: Comparison of CDI scores between the two studies**

Variables	Baseline status			Post intervention status		
	RC1 (Yoga group)	RC2	Relatively poorer in...	RC1 (Yoga group)	RC2	Relatively more favorable in...
CDI-EP	6.87 ± 5.41	5.7±2.43	RC1↓	1.20↑ (17.46%)	2.0↑* (35.1%)	RC1↑
CDI-NMPS	4.00 ± 3.60	5.1±2.07	RC2↓	-0.41 ↓ (-10.25%)	0.1↑ (2.0%)	RC1↑
CDI-NSE	2.88 ± 2.54	0.6±1.14	RC1↓	0.79↑ (27.43%)	2.0↑*** (333.3%)	RC1↑
CDI-FP	6.92 ± 5.40	5.1±3.59	RC1↓	0.91↑ (13.15%)	2.0↑ (39.2%)	RC1↑
CDI-INE	4.38 ± 3.65	3.2±2.29	RC1↓	1.54↑ (35.15%)	1.7↑* (53.1%)	RC1↑
CDI-IP	2.54 ± 2.17	1.8±1.73	RC1↓	-0.625↓ (-24.6%)	0.3↑ (16.7%)	RC1↑
CDI-Total	13.79 ± 9.92	10.7±4.98	RC1↓	2.12↑ (15.37%)	4.1↑* (38.3%)	RC1↑

**Legend:**

↑=Increased compared to pre (favorable)  
 ↓=Decreased compared to pre (favorable)  
 ↑=Increased compared to pre (not favorable)  
 \*\*\*=Significant with p<0.001  
 \*=Significant with p<0.05  
 ↓/↓=Poorer (at baseline)  
 ↑/↑=Improved (post intervention)







## Appendix XIII PLAGIARISM CHECK REPORT



### Urkund Analysis Result

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