REFERENCES


APPENDIX 1

DIABETES - QUESTIONNAIRE

(PLEASE TICK ONE THE CORRECT OPTION)

1) AGE:
   10-20 1
   21-30 2
   OVER 50 5
   31-40 3
   41-50 4

2) GENDER: MALE 1
   FEMALE 2

3) WHICH ETHNIC GROUP DO YOU BELONG TO?
   ASIAN 1
   BLACK 3
   CAUCASIAN (WHITE) 2
   COLOURED 4
   OTHER 5

4.1) AT WHAT AGE WERE YOU DIAGNOSED A DIABETIC?
   SPECIFY

4.2) IN UNCONTROLLED DIABETES (OUT OF THE NORMAL RANGE) THE BLOOD SUGAR IS:
   a) NORMAL 1
   b) INCREASED 2
   c) DECREASED 3
   d) INCREASE AND DECREASE 4
   e) I DON'T KNOW 5
5.1) AT PRESENT WHAT ARE THE TYPES OF INSULIN REGIMES (INJECTIONS) USED.

<table>
<thead>
<tr>
<th>Insulin Regime</th>
<th>Insulin Name</th>
<th>Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTRAPAN 1(A)</td>
<td>HUMULIN 20/80</td>
<td>10(J)</td>
</tr>
<tr>
<td>ACTRAPID 2(B)</td>
<td>HUMULIN 30/70</td>
<td>11(K)</td>
</tr>
<tr>
<td>MIXTARD 10/90</td>
<td>HUMULIN 40/60</td>
<td>12(L)</td>
</tr>
<tr>
<td>MIXTARD 20/80</td>
<td>HUMULIN L</td>
<td>13(M)</td>
</tr>
<tr>
<td>MIXTARD 40/60</td>
<td>HUMULIN N</td>
<td>14(N)</td>
</tr>
<tr>
<td>MIXTARD 50/50</td>
<td>HUMULIN R</td>
<td>15(O)</td>
</tr>
<tr>
<td>MONOTARD 7(G)</td>
<td>HUMULIN U</td>
<td>16(P)</td>
</tr>
<tr>
<td>PROTOPHANE 8(H)</td>
<td>HUMALOG</td>
<td>17(Q)</td>
</tr>
<tr>
<td>ULTRATARD 9(I)</td>
<td>HUMALOG MIX 25</td>
<td>18(R)</td>
</tr>
<tr>
<td>HUMATROPE 19(S)</td>
<td>OTHER</td>
<td>20(T)</td>
</tr>
</tbody>
</table>

6.1) WHAT IS YOUR CURRENT DOSAGE OF INSULIN? STATE (B- BREAKFAST; L-LUNCH; S-SUPER)

### 6.1.1) LONG LASTING:

<table>
<thead>
<tr>
<th>Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
</tr>
<tr>
<td>L</td>
</tr>
<tr>
<td>S</td>
</tr>
</tbody>
</table>

### 6.1.2) SHORT LASTING:

| Dosage | |
|--------|
| B      |
| L      |
| S      |

### 6.1.3) OTHER:

| Dosage | |
|--------|
| B      |
6.2) THE NORMAL RANGE FOR BLOOD GLUCOSE IS:
   a) 7-15 mmol/l
   b) 4-8 mmol/l
   c) 2-10 mmol/l
   d) I DON'T KNOW

7.1) DO YOU HAVE A FAMILY HISTORY OF DIABETES?
   YES 1
   NO 2

7.2) IF YES, WHAT RELATIONSHIP IS THIS PERSON TO YOU?
   MOTHER 1
   BROTHER 2
   GRANDPARENT 3
   FATHER 4
   SISTER 5
   OTHER (SPECIFY): 6

8) HOW DO YOU FEEL ABOUT EXERCISE?
   VERY POSITIVE 1
   POSITIVE 2
   NEGATIVE 4
   INDIFFERENT 3

9.1) WERE YOU PREVIOUSLY INVOLVED IN EXERCISE/SPORT BEFORE BEING DIAGNOSED AS HAVING DIABETES?
   YES 1
   NO 2
9.2) IF YES WAS THESE ACTIVITIES ON A:

COMPETITIVE BASIS 1
RECREATIONAL BASIS 2

9.3) IF YES, WHAT TYPES OF EXERCISE WERE YOU INVOLVED IN (AT MOST THREE (3) ACTIVITIES)

| Racket Sport (e.g. Tennis, Squash) | 1 | Dance (Ballet, Jazz) | 6 |
| Water Sport (e.g. Swimming)       | 2 | Gym (Weight, Gymnastics) | 7 |
| Athletics (e.g. Running)          | 3 | Ball Sport (e.g. Soccer) | 8 |
| Leisure Sport (e.g. Bungee Jump, Skipping) | 4 | Other (Specify) | 9 |
| Bat Sport (Cricket, Hockey)       | 5 |

10.1) DO YOU AT PRESENT PARTICIPATE IN ANY FORM OF EXERCISE / SPORT?

YES 1  NO 2

10.2) IF YES,

COMPETITIVE 1  OR
RECREATIONAL 2

10.3) IF YES, WHAT TYPE OF ACTIVITIES [LIST AT MOST THREE (3) ACTIVITIES]

a) ____________________________

b) ____________________________

c) ____________________________

IF NO, WHY?
______________________________
11.1) IF YOU ARE PRESENTLY INACTIVE, WOULD YOU LIKE TO PARTICIPATE IN SPORT/EXERCISE.

YES ☐ NO ☐

11.2) IF NO, WHY?

11.2.1) IF YOU ARE EXERCISING, HOW MANY MINUTES ON AVERAGE IS EACH OF YOUR EXERCISE SESSIONS?

<table>
<thead>
<tr>
<th>Less than 20 minutes</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 45 minutes</td>
<td>3</td>
</tr>
<tr>
<td>Between 20-45 minutes</td>
<td>2</td>
</tr>
</tbody>
</table>

11.3) HOW MANY EXERCISE SESSIONS DO YOU PARTICIPATE IN DURING THE WEEK?

<table>
<thead>
<tr>
<th>Once</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-3 times</td>
<td>2</td>
</tr>
<tr>
<td>4 and more</td>
<td>3</td>
</tr>
</tbody>
</table>

11.4) WHEN EXERCISING, INTENSELY DO YOU EXPERIENCE YOUR EXERCISE SESSIONS TO BE:

| Extremely light | 1 |
| Somewhat hard | 4 |
| Extremely hard | 7 |
| Very light | 2 |
| Fairly light | 3 |
| Hard | 5 |
| Very hard | 6 |

12.1) HOW DO YOU GENERALLY FEEL AFTER EXERCISING:

1 ☐ 2 ☐
12.2) BEFORE YOU PARTICIPATE IN VIGOROUS EXERCISE, DO YOU: (CHOOSE ONE)
   a) INJECT MORE INSULIN BEFORE THE EXERCISE 1
   b) EAT EXTRA CARBOHYDRATE BEFOREHAND 2
   c) EAT LESS FOOD JUST BEFOREHAND 3
   d) NONE OF THE ABOVE 4

12.3) DO YOU FIND EXERCISE/SPORT AS BEING BENEFICIAL TO YOU?
   YES 1
   NO 2

12.4) IF YES, WHAT ARE THE BENEFITS (LIST AT MOST THREE BENEFITS).
   a) ____________________________________________
   b) ____________________________________________
   c) ____________________________________________

12.5) IF NO, WHY DO YOU FEEL EXERCISE IS NON-BENEFICIAL (LIST AT MOST THREE REASONS).
   a) ____________________________________________
   b) ____________________________________________
   c) ____________________________________________

13.1) WHAT OTHER PHYSICAL ACTIVITIES (E.G. GARDENING) BEIDES EXERCISE/SPORT DO YOU ENGAGE IN ON A REGULAR BASIS? PLEASE STATE ONLY THREE.
13.2) IF PARTICIPATING IN OTHER PHYSICAL ACTIVITIES, HOW MANY MINUTES ON AVERAGE IS EACH OF THESE ACTIVITIES.

- LESS THAN 20 MINUTES: 1
- BETWEEN 20-45 MINUTES: 2
- MORE THAN 45 MINUTES: 3

13.3) HOW MANY OF THESE PHYSICAL ACTIVITY SESSIONS DO YOU PARTICIPATE IN DURING THE WEEK.

- ONCE: 1
- 2-3 TIMES: 2
- 4 AND MORE: 3

14.1) HOW FREQUENTLY DO YOU TAKE YOUR MEDICATION (INSULIN INJECTIONS).

- ONCE A DAY: 1
- THREE TIMES A DAY: 3
- TWICE A DAY: 2
- MORE THAN THREE TIMES A DAY: 4

14.2) AT WHAT TIME OF THE DAY DO YOU INJECT YOURSELF.

<table>
<thead>
<tr>
<th>Time of Day</th>
<th>Before Breakfast</th>
<th>After Breakfast</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEFORE BREAKFAST</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>BEFORE LUNCH</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>BEFORE SUPPER</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>OTHER: SPECIFY</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

14.3) WHAT SITES ON YOUR BODY DO YOU USE TO INJECT YOURSELF.

- SITE 1
- SITE 2
15.1) How often would you characterise your sugar level as being high?

- Occasionally [ ]
- Frequently [ ]

15.2) Do you feel participation in sport/exercise:

A) decreases your blood glucose levels [ ]
B) increases your blood glucose levels [ ]
C) has no effect on blood glucose level [ ]

16.1) Do you feel exercise can help control your diabetes?

- Yes [ ]
- No [ ]

16.2) If yes, how?

________________________________________________________________________
________________________________________________________________________

16.3) If no, why do you feel exercise is futile?

________________________________________________________________________

________________________________________________________________________
17.1) DO YOU THINK THAT GOOD DIET CONTROL IS AN IMPORTANT FACTOR TO A DIABETIC PERSON?

YES  1  NO 2

17.2) IF YES WHY?

17.2) PEOPLE WITH DIABETES SHOULD:

a) HAVE THEIR FOOD COOKED SEPERATELY FROM THAT OF THE FAMILY  1

b) EAT THE SAME FOODS AT THE SAME TIME EACH DAY  2

c) VARY THEIR DIET BY SUBSTITUTING DIFFERENT FOODS CORRECTLY FROM THE DIET EXCHANGE LIST  3

d) EAT THE SAME FOOD COOKED FOR THE FAMILY  4

e) I DON'T KNOW / NOT SURE  5

17.3) WHAT TYPES OF FOOD DO YOU MOST OFTEN HAVE IN YOUR MEALS:

a) CARBOHYDRATE (EG RICE, PASTA, POTATOES, MAIZE ETC.)  1

b) PROTEIN (EG NUTS, MEAT, POULTRY, LEGUMES, SOYA ETC.)  2

c) FATS (EG BUTTER, MARGARINE, OIL, CHEESE CREAM ETC.)  3

d) OTHER  4

17.4) RICE IS MAINLY:

a) PROTEIN  1
b) CARBOHYDRATE

c) FAT

d) MINERAL AND VITAMIN

e) I DON'T KNOW

17.5) WHICH OF THE FOLLOWING IS RICH IN CARBOHYDRATE:

a) MEAT

b) EGGS

c) BUTTER

d) MAIZE

e) I DON'T KNOW

18.1) DO YOU FEEL THE AIM OF GOOD DIETARY MANAGEMENT IN DIABETES IS TO:

a) ASSIST IN ACHIEVING NORMOGLYCAEMIC (NORMAL BLOOD GLUCOSE LEVELS) IN CONJUNCTION WITH INSULIN THERAPY.

AGREE 1

DISAGREE 2

b) REDUCE THE RISK OF HYPOGLYCEMIA (LOW) / HYPERGLYCEMIA (HIGH)

AGREE 1

DISAGREE 2

c) MAINTAIN OR ACHIEVE IDEAL BODY WEIGHT

AGREE 1

DISAGREE 2

d) MINIMIZE THE RISKS OF MICROVASCULAR (EG: EYE, FEET, KIDNEY PROBLEMS) / MACROVASCULAR (EG: HEART, STROKE) COMPLICATIONS
19) DO YOU THINK THE AMOUNT OF FOOD CONSUMED DIRECTLY AFFECTS BLOOD GLUCOSE LEVELS:

YES 1  NO 2

20) WHICH OF THE FOLLOWING FACTORS TOGETHER WITH MEAL PLANNING DO YOU BELIEVE IS NECESSARY TO ACHIEVE MANAGEMENT GOALS:

a) DIET 1  b) DIET AND INSULIN 2

c) INSULIN ONLY 3  d) DIET, INSULIN, AND EXERCISE 4

21) EATING HABITS OVER THE PAST SEVEN (7) DAYS.

21.1) HOW OFTEN DID YOU FOLLOW A DAILY BALANCED DIET OVER THE LAST 7 DAYS?

ALWAYS 1  USUALLY 2  SOMETIMES 3

RARELY 4  NEVER 5

21.2) DURING THE PAST WEEK, WHAT PERCENTAGE OF YOUR MEALS INCLUDED HIGH FIBRE FOOD, SUCH AS FRUITS, FRESH VEGETABLES, WHOLE GRAIN BREAD, DRIED BEANS, PEAS AND BRAN?

0% (NONE) 1  25% (1/4) 2  50% (1/2) 3

75% (3/4) 4  100% (ALL) 5

21.3) DURING THE PAST WEEK, WHAT PERCENTAGE OF YOUR MEALS INCLUDED HIGH FAT FOOD SUCH AS BUTTER, ICE CREAM, OIL, NUTS AND SEEDS, MAYONNAISE, AVACADO, DEEP FRIED FOOD, SALAD DRESSING, BACON,
21.4) During the week what percentage of your meals included sweets and desserts such as pie, cake, jelly, soft drinks (regular not diet drinks), cookies?

0% (None) 1 25% (1/4) 2 50% (1/2) 3
75% (3/4) 4 100% (All) 5

21.5) On how many times of the last 7 days did you participate in at least 20 minutes of physical activity?

1 2 3 4 5 6 7 8 9

21.6) On how many times of the last 7 days did you participate in a specific exercise session other than what you do around the house or as part of your work?

1 2 3 4 5 6 7 8 9

21.7) How many of your recommended insulin injections did you take in the last 7 days:

All of them 1 25% (1/4) Most of them 2 Some of them 3
None of them 4 I don’t take insulin 5

21.8) On how many of the last 7 days (that you were not sick) did you test your glucose (blood sugar) levels?
EVERYDAY 1  MOST DAYS 2  SOME DAYS 3  NONE OF THE DAYS 4

AFTER-EFFECTS

21.9) WHAT EFFECT DID EXERCISING AND MEDICATION COMBINED HAVE ON YOUR GLUCOSE LEVELS:
   a) DECREASE YOUR GLUCOSE LEVELS  1
   b) INCREASE YOUR GLUCOSE LEVELS  2
   c) HAVE NO EFFECT ON YOUR GLUCOSE LEVELS  3

THANK YOU!!
**DIABETES - QUESTIONNAIRE**

(SEBENZISA ÖEZIMPENDULWENI EZIVIZO)

1) **IMINYAKA:**
   - 10-20: 1
   - 21-30: 2
   - 31-40: 3
   - 41-50: 4
   - NGAPHEZU KUKA-50: 5

2) **UBULILI:**
   - OWESILISA: 1
   - OWESIFAZANE: 2

3) **UBUHLANGA:**
   - ASIAN: 1
   - CAUCASIAN (WHITE): 2
   - COLOURED: 4
   - OTHER: 5

4.1) **WAWUNEMINYAKA EMINGAKI UQALA UKWELASHELWA ISIFO SIKASHUKELA?**
   - CHAZA

4.2) **KUSHUKELA ONGATHIBEKIWE (ONGAPHANDLE KWEZINGA ELAMUKELEKILE) USHUKELE OSEGAZINI:**
   - a) UBA SEZINGENI ELIKAHLE
   - b) UYENYUKA
   - c) UYEHLA
   - d) UYENYUKA UBUYE WEHLE
   - e) ANGAZI
5.1) **NJENGAMANE YIZIPHI IZINHLOBO ZE-INSULIN (IMIJOVO) OYISEBENZISAYO?**

<table>
<thead>
<tr>
<th>ACTRAFANE 1(A)</th>
<th>HUMULIN 20/80</th>
<th>11(K)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTRAPID 2(B)</td>
<td>HUMULIN 30/70</td>
<td>12(L)</td>
</tr>
<tr>
<td>MIXTARD 10/90 3(C)</td>
<td>HUMULIN 40/60</td>
<td>13(M)</td>
</tr>
<tr>
<td>MIXTARD 20/80 4(D)</td>
<td>HUMULIN L</td>
<td>14(N)</td>
</tr>
<tr>
<td>MIXTARD 40/60 5(E)</td>
<td>HUMULIN N</td>
<td>15(O)</td>
</tr>
<tr>
<td>MIXTARD 50/50 6(F)</td>
<td>HUMULIN R</td>
<td>16(P)</td>
</tr>
<tr>
<td>MONOTARD 7(G)</td>
<td>HUMULIN U</td>
<td>17(Q)</td>
</tr>
<tr>
<td>PROTOPHANE 8(H)</td>
<td>HUMALOG</td>
<td>18(R)</td>
</tr>
<tr>
<td>ULTRATARD 9(I)</td>
<td>HUMALOG MIX 25</td>
<td>19(S)</td>
</tr>
<tr>
<td>HUMATROPE 10(J)</td>
<td>OKUNYE</td>
<td>20(T)</td>
</tr>
</tbody>
</table>

6.1) **USEBENZISA INANI ELINGAKANANI LE-INSULIN?**

CHAZA: (B- IBHULAKUFESI {ISIDLO SASEKUSENI})
(L- ILANTSHI {ISIDLO SASEMINI})
(S- ISAPHA {ISIDLO SANTAMBAMA})

6.1.1) **UBUDE BESIKHATHI ESITYHLAYO:**

- ISIKALO
  - B
  - L
  - S

6.1.2) **UBUFISHANE BESIKHATHI ESIVIOHLALAYO**

- ISIKALO
  - B
  - L
  - S

6.1.3) **OKUNYE CHAZA:**

- ISIKALO
  - B
  - L
  - S
6.2) USHUKELA (1-GLUCOSE) OSEGAZINI NGOKUJWAYELEKILE:

   a) 7-15 mmol/l  1
   b) 4-8 mmol/l  2
   c) 2-10 mmol/l  3
   d) ANGAZI  4

7.1) UKHONA YINI OWOMNDENI ONOMLANDO WESIFO SIKASHUKELA?

   YEBO  1
   QHA  2

7.2) UMA EKHONA, UHLOBENE KANJANI NAYE?

   UMAMA  1
   UBHUTI  2
   UGOGO / UMKHUL  3

   UBABA  4
   UDADEWETHU  5
   OKUNYE  6

   (CHAZA): ____________________

8) KUKUPHATHA KANJANI UKUZILOLONGA?

   KAHLE KAKHULU  1
   KAHLE  2
   ANGAZI  3
   KABI  4

9.1) WAKE WANGENA YINI OHLELWENI LOKUZIVOCAVOCA NOMA LOKUZILOLONGA KUMBE KWEZEMIDLALO NGAPHAMBI KOKUBA WELASHELWE ISIFO SIKASHUKELA?

   YEBO  1
   QHA  2

9.2) UMA KUNGU “YEBO” LOKHU KUZIQEQESHA KWAKUNGOKOKU:

   ZIQEQESHELA IMIQHUDELWANO  1
   OR
   OKOKUZIJABULISA  2
9.3) UMA KUNGU "YEBO" YIZIPHI IZINHLOBO ZEMIDLALO OWAWUZENZA? (OKUNGENANI 3 WEMIDLALO)

<table>
<thead>
<tr>
<th>SPORTS TYPE</th>
<th>NUM</th>
<th>SPORTS</th>
<th>NUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>RACKET SPORT (EG TENNIS, SQUASH)</td>
<td>1</td>
<td>DANCE (BALLET, JAZZ)</td>
<td>6</td>
</tr>
<tr>
<td>WATER SPORT (EG SWIMMING)</td>
<td>2</td>
<td>GYM (WEIGHT, GYMNASTICS)</td>
<td>7</td>
</tr>
<tr>
<td>ATHLETICS (EG RUNNING)</td>
<td>3</td>
<td>BALL SPORT (EG SOCCER)</td>
<td>8</td>
</tr>
<tr>
<td>LEISURE SPORT (EG BUNGY JUMP, SKIPPING)</td>
<td>4</td>
<td>UKUNYE (CHAZA)</td>
<td>9</td>
</tr>
<tr>
<td>BAT SPORT (CRICKET, HOCKEY)</td>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10.1) NJENGAMANJE USAZILOLONGA YINI NOMA UKHONA YINI UMDLALO OWENZAYO?

YEBO 1  QHA 2

10.2) UMA KUNGU "YEBO"

IMIQHULELWANO 1 OR
OKOKUZIJABULISA 2

10.3) UMA KUNGA "YEBO" NHLOBO ZINI ZEMIDLALO? (BHALA OKUNGENANI IZINHLOBO EZINTATHU).

a) ____________________________________

b) ____________________________________

c) ____________________________________

10.4) UMA KUNGU "QUA" CHAZA KUNGANI?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
11.1) Uma ungwenzi lutho okwamanje, ungathanda yini ukungenela imidlalo nomaxuziyo ca.

Yebo [ ]

Qha [ ]

11.2) Uma uthi "qha" chaza kungani?

11.3) Uma uzivocavoca, ilinganiselewa kubani imizu oyiisebenzisayo engxenxeni ngayinye yokuzilolonga?

Ngaphansi kwemizu engu 20 [ ]

Ngaphezulu kwemizu engu 45 [ ]

Phakathi kuku 20-45 imizu [ ]

11.4) Uzi lolonga kangaki ngeviki?

Kanye [ ]

Kabili nomaxathu [ ]

Kane nomaxaphezulu [ ]

11.5) Uma uzi lolonga ngokweqile uye uzwe izikhathi zokuzi lolonga:

Zilula ngokweqile [ ]

Zilula ngokusezingeni [ ]

Zinzinga [ ]

Zinzinga ngokweqile [ ]

12.1) Uye uzizwe unjani ngemuva kokuziyo ca.

Ngikhululekile [ ]

Angikhululeki [ ]
12.2) NGAPHAMBI KOKUBA UZIVOCAVOCE NGOMFUTHO, UYE U:
(KHETHA OKUKODWA)

a) UJOVA NGE-INSULIN ENINGI NGAPHAMBI KOKUZILOLONGA

b) UDLA UKUDLA OKUNESITASHI ESININGI UNGAKAYI
KOZILOLONGA

c) UDLA UKUDLA OKUNCANE NJE CISHE NGAPHAMBI
KOZILOLONGA

d) AKUKHO KULOKHU OKUNGENHLA

12.3) UTHOLA UKUZIVOCAVOCA NOMA PMIDALO INENZUZO KUWENA?

YEBO 1 QHA 2

12.4) UMA KUNGA "YEBO" YIYIPHI INZUZO?
(BHALA OKUNGENANI KUBE KUTHATHU)

a) 

b) 

c) 

12.5) UMA KUNGU "QHA " KUNGANI UKUZIVOCAVOCA KUNGENANZUZO
KUWENA?
(BHALA OKUNGENANI KUBE KUTHATHU).

a) 

b) 

c) 

13.1) YIMIPHI EMINYE IMISETSHEZANA OYENZAYO ENYAKAZISA UMZIMBA
(ISIBONELO : UKUSEBENZA ENGADINI) NGAPHANDLE
KOKUZIVOCAVOCA / EZEMIDLALO, OYENZA NJALO? (BHALA OKUTHATHU KUPHELA)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td></td>
</tr>
</tbody>
</table>

13.2) UMA KUKHONO OKUNYE OKUNYAKAZISA UMZIMBA, KUTHATHA ISIKHATHI ESINGAKANANI IMVAMISA?

| NGAPHANSI KWEMIZUZU ENGU 20 | 1 |
| IMIZUZU EPHAKATHI KUKU 20-45 | 2 |
| NGAPHEZULU KWEMIZUZU ENGU-45 | 3 |

13.3) UYENZA KANGAKI LEMISETSHENZANA NGEVIKI?

| KANYE (ONCE) | 1 |
| KANA NANGAPHEZULU (4->) | 3 |

14.1) UVAMISE UKUYITHATHA KANGAKI IMITHI (IMJOVO YE-INSULIN)?

| KANYE NGELANGA / NGOSUKU | 1 |
| KABILI NGELANGA / NGOSUKU | 2 |
| KATHATHU NGELANGA / NGOSUKU | 3 |
| NGAPHEZULU KOKUTHATHU NGELANGA / NGOSUKU | 4 |

14.2) YISIPHI ISIKHATHI SOSUKU OZIJOVA NGASO?

| NGAPHAMBI KOKUBLA KWASEKUSENI | 1 |
| NGEMUVA KOKUBLA KWASEKUSENI | 2 |
| NGAPHAMBI KWESIDLO SASEMINI | 3 |
| NGEMUVA KWESIDLO SASEMINI | 4 |
| NGAPHAMBI KWESIDLO SANTAMBAMA | 5 |
| NGEMUVA KWESIDLO SANTAMBAMA | 6 |
| OKUNYE: CHAZA | 7 |
14.3) UZIJOVA KUPHI NENDAWO EMZIMBENI?

ETHANGENI
IZINDAWO EZIZUNGEZE ISISU
EZINQENI
ENYE INDAWO

15.1) UVAME UKUBONA KANGAKI UKUTHI IZINGA LIKASHUKELA LIPHEZULU?

AKUVAMISILE
KUWAYELEKILE / KWENZEKA NJALO

15.2) UKUZIMBANDAKANYA KWEZEMIDLALO/UKUVOCAVOCA:

A) KUNCIPHISA AMAZINGA KASHUKELA EGAZINI
B) KWANDISA AMAZINGA KASHUKELA EGAZINI
C) AKWENZI MEHLUKO EMAZINGENI KASHUKELA EGAZINI

16.1) UBONA UKUTHI UKUVOCAVOCA/UKUZILOLONGA KUNGASIZA EKUGCINENI IZINGA LIKASHUKELA LISENDIMENI

YEBO  1  QHA  2

16.2) UMA KUNGU "YEBO" KANJANI?

16.3) UMAKUNGU "QHA" KUNGANI UBONE UKUVOCAVOCA/UKUZILOLONGA KUGENAMSEBENZI / KUNGASIZI LUTHO?
17.1) UKUDLA NGENDELA EYIYONA UCABANGA KUBALULEKILE YINI KUMUNTUONESIFOSIKSHUKELA?

YEBO 1  QHA 2

17.2) UMA KUNDU "YEBO" KUNGANI?

17.3) ABANTU ABANESIFO SIKASHUKELA KUFANELE:

a) BAPHEKELWE UKUDLA KWABO EKUSECELENI KWALOKHO OKOMNDENI

b) BADLE UKUDLA OKUFANAYO NGESIKHATHI ESIFANAYO USUKU NGOSUKU

c) BADLE UKUDLA OKUNHLOBONHLOBO NGOKUSHINTSHA IZINHILOBO NGENDLELA EYIYONA OHLWINI LOKUSHINTSHA UKUDLA

d) BADLE UKUDLA OKUFANAYO NALOKHO OKUPHEKELWE UMNDENI

e) ANGAZI / ANGINASO ISIQINISEKO

17.4) YIKUPHI UKUDLA OVAMISE UKUKUDLA EZIDLWENI ZAKHO:

a) OKUNESITASHI-CARBOHYDRATES (ISIB: IRAYISI, UJEQE, AMAZAMBANE, UMMBILA NOKUNYE)

b) AMA-PROTEIN (ISIB: AMANTONGOMANE, INYAMA EBOMVA, INYAMA YEZINKUKHU, OKUSANHLAMVU NOKUNYE).

c) OKUNAMAFUTHA (ISIB: IBHOTELA, AMAFUTHA, USHIZI NOKUNYE)

d) OKUNYE
17.5) I-RAYISI LIYI-

a) PROTHEVINI (PROTEIN)

b) CARBOHYDRATE

c) AMAFUTHA (FAT)

d) USAWOTANA (MINEAL) NOIMAVITAMIN

e) ANGAZI

17.6) YIKUPHI KULOKHU OKULANDELAYO OKUNESITASHI ESININGI?

a) INYAMA

b) AMAQANDA

c) IBHOTELE

d) UMMBILA

e) ANGAZI

18.1) UCABANGA UKUTHI INHLOSO YOKUDLA NGENDLELA EYIYONA (GOOD DIET) KUMUNTU ONESIFO SIKASHUKELA:

a) UKUSIZA EKWENZENI AMAZINGA KASHUKELA UKUBA AHLALE ESEZINGENI UMA ESETSHENZISWA KANYE NOKWELASHWA NGE-INSULIN.

NGIYAVUMA  1  ANGIVUMI  2

b) INCIPHISA UBUNGOZI BE-HYPOGLYCEMIA (LO) / HYPERGLYCEMIA (HIGH)

NGIYAVUMA  1  ANGIVUMI  2

c) UKUGCINA NOMA UKUBA NESISINDO SOMEIMBA ESAMUKELEKILE

NGIYAVUMA  1  ANGIVUMI  2

d) INCIPHISA UBUNGOZI NEZINKINGAZE-MICROVASCULAR (ISIB: AMEHLLOIZINYAWO, INKINGA YEZINSO) / ZE-MACROVASCULAR (ISIB: INHLIZIYO, UKUFA KOHLANGOTHI)

NGIYAVUMA  1  ANGIVUMI  2
19) UCABANGA UKUTHI INANI LOKUDLA OKUDLIWE KUNOOMPHUMELA YINI EZINGENI LIKASHUKELA OSEGAZINI?

YEBO 1  QHA 2

20) YIKUPHI KULOKHU OKULANDELA YO OKUNGATHI UMA KUHLANGANISWE NOHLELO LOKUDLA OKHOLWA UKUTHI KUBALULEKILE EKUPHUMUMELELESENZI IZINHLOSO ZOKUGADA IZINGA LIKASHUKELA:

a) UKUDLA NGENDLELA EYIYONA 1
b) UKUDLA NGENDLELA EYIYO KANYE NE-INSULIN 2
c) I-INSULIN YODWA 3
d) UKUDLA NGENDLELA EYIYONA, I-INSULIN KANYE NOKUZIVOCAVOCA 4

21) IMIKHUBA YOKUDLA EZINSUKWINI EZIYISIKHOMBISA EZEEDLULE

21.1) ULULANDELE KANGAKANANI UHLELO LOKUDLA OKUSESIMWENI KULEZINSUKU EZIYISIKHOMBISA EZEEDLULE?

NJALO 1
NGAKUJWAYELEKILE 2
KOKUNYE / KWEZINYE IZIKHATHI 3
BENGINGAVAMISILE 4
BENGINGAKAZE 5

21.2) NGESONTO ELEDLULE, AMAPHESENTI AMANGAKI OKUDLA KWAKHO AYEFACE UKUDLA OKUMAHHLALAHHLA (HIGH FIBRE FOODS) Njengezithele, imifino esemisha, isinkwa sikakolweni, uBhontshisi owomisiwe, uphizi kanye namabele?

0% (AWEKHO) 1  25% (1/4) 2  50% (1/2) 3
75% (3/4) 4  100% (KONKE) 5
NGESONTO ELEDLULE, MANGAKI AMAPHESENTI OKUDLA KWAKHO
OKWAKUNAMAFUTHA AMANINGI NJENGE BHOETELA U-ICE CREAM,
AMAFUTHA, AMANTONGOMANE NOKUSANHLAMVU, I-MAYONNAISE,
UKWATAPEYA, UKUDLA OKUBILISWE EMAFUTHENI, I-SALAD DRESSING,
UBHEKENI NENYE INYAMA ENAMAFUTHA NESIKHUMBA?

<table>
<thead>
<tr>
<th></th>
<th>0% (AKUKHO)</th>
<th>25% (1/4)</th>
<th>50% (1/2)</th>
<th>100% (KONKE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% (3/4)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

21.3) NGESONTO ELEDLULE, MANGAKI AMAPHESENTI OKUDLA KWAKHO
OKWAKU-NAMASWIDI NAMA-DESSERTS ANJENGO-PHAYA, IKHEKHE,
UJELI, NEZIPHUZO EZIBANDAYO (EZIJWAYELEKILE HHAYI-EZIYI-DIET)
AMABHISIKIDI.

<table>
<thead>
<tr>
<th></th>
<th>0% (AKUKHO)</th>
<th>25% (1/4)</th>
<th>50% (1/2)</th>
<th>100% (KONKE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% (3/4)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

UMSEBENZI

21.4) ZINGAKI IZIKHATHI EZINSUKWINI EZIYISIKHOMBISA EZEDLULE OWANYA-
KAZISA NGAZO UMZIMBA OKUNGENANI IMIZUZU ENGAMASHUMI AMABILI?

21.5) ZINGAKI IZIKHATHI EZINSUKWINI EZINGU 7 EZEDLULE
OWAZIMBHANDAKANYA NGAZO OHLIELWENI NGOQO LOKUZIVONCAVOCA
NGAPHANDLE KWEZINTO EZITHIZE OZENZA ENDLINI NOMA NJENGO
KUNYE KOMSEBEZI WAKHO?

[ ] V66
[ ] V67
[ ] V68
[ ] V69
21.6) MINGAK IMIJOVO YE-INSULIN OKUVUMELEKE UKUBA UYITHA THE OYITHATHILE / OYISEBENZISILE EZINSUKWINI EZIWU-7 EZEDLULE?

<table>
<thead>
<tr>
<th>YONKE</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMİNINGI YAYO</td>
<td>2</td>
</tr>
<tr>
<td>EMINYE YAYO</td>
<td>3</td>
</tr>
<tr>
<td>ANGIYITHATHANGA</td>
<td>4</td>
</tr>
<tr>
<td>ANGIYISEBENZISI 1- INSULIN</td>
<td>5</td>
</tr>
</tbody>
</table>

21.7) IZIKHATHI EZINGAKI EZINSUKWINI EZIWU 7 EZEDLULE (LAPHO UNGAZANGE UGULE) OWAKE WAHLOLA AMAZINGA KASHUKELA EGAZINI LAKHO.

<table>
<thead>
<tr>
<th>NSUKUZONKE</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>KANINGI</td>
<td>2</td>
</tr>
<tr>
<td>NGEZINYE IZINSUKU</td>
<td>3</td>
</tr>
<tr>
<td>ANGIKAZE</td>
<td>4</td>
</tr>
</tbody>
</table>

21.8) KUNAMPHUMELA MUNI UKUZIVOCAVOCA KANYE NOKUSEBENZISA IMITHI EMAZINGENI KASHUKELA WAKLO?

<table>
<thead>
<tr>
<th>a) KWEHLISA IZINGA LIKASHUKELA EGAZINI</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>b) KWENYUSA IZINGA LIKASHUKELA EGAZINI</td>
<td>2</td>
</tr>
<tr>
<td>c) AKWENI LUTHO EZINGENI LIKASHUKELA OSEGAZINI</td>
<td>3</td>
</tr>
</tbody>
</table>

SIYABONGA !!
DEAR INSULIN DEPENDENT DIABETIC PATIENT/RESPONDENT

N.B. THIS QUESTIONNAIRE IS ADMINISTERED TO INSULIN-DEPENDENT DIABETIC PATIENTS ONLY-AIMING TO GATHER THEIR KNOWLEDGE OF, ATTITUDES AND BELIEFS TOWARDS AND PARTICIPATION IN EXERCISE/PHYSICAL ACTIVITY IN THE MANAGEMENT OF DIABETES

1. THIS QUESTIONNAIRE IS DESIGNED TO DETERMINE THE EXERCISE PRACTICES OF INSULIN DEPENDENT DIABETIC MELLITUS PATIENTS.

2. THE INFORMATION GATHERED FROM THIS QUESTIONNAIRE WILL BE USED IN FORMULATING EDUCATIONAL MATERIAL REGARDING EXERCISE IN THE MANAGEMENT OF INSULIN DEPENDENT DIABETIC MELLITUS.

3. THE COMPLETION OF THIS QUESTIONNAIRE WILL TAKE YOU APPROXIMATELY ±10 MINUTES.

4. ALL INFORMATION WILL BE REGARDED AS STRICTLY CONFIDENTIAL.

5. IF YOU ARE WILLING TO PARTICIPATE IN THIS STUDY PLEASE SIGN IN THE PLACE BELOW INDICATING YOUR INFORMED CONSENT.

__________________________________________
SIGNATURE

__________________________________________
DATE
<table>
<thead>
<tr>
<th>INSULIN EQUIVALENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NOVO NORDISK</strong></td>
</tr>
<tr>
<td><strong>ACTRAPID</strong></td>
</tr>
<tr>
<td>• 5 HRS ONSET OF ACTION</td>
</tr>
<tr>
<td>• 2-5.5 HRS PEAK</td>
</tr>
<tr>
<td>• 5-8 HRS DURATION</td>
</tr>
<tr>
<td>• SOLUBLE, REGULAR INSULIN.</td>
</tr>
<tr>
<td>• HUMAN INSULIN, GENETICALLY ENGINEERED.</td>
</tr>
<tr>
<td><strong>PROTOPHANE</strong></td>
</tr>
<tr>
<td>• 1.5 HRS ONSET OF ACTION</td>
</tr>
<tr>
<td>• 4-12 HRS PEAK</td>
</tr>
<tr>
<td>• 24 HRS DURATION</td>
</tr>
<tr>
<td>• ISOPHANE INSULIN, NHP</td>
</tr>
<tr>
<td>• HUMAN GENETICALLY ENGINEERED</td>
</tr>
<tr>
<td><strong>ACTRAPHANE</strong></td>
</tr>
<tr>
<td>• .5 HRS ONSET OF ACTION</td>
</tr>
<tr>
<td>• 2-3 HRS PEAK</td>
</tr>
<tr>
<td>• 24 HRS DURATION</td>
</tr>
<tr>
<td>• BIPHASIC INSULIN</td>
</tr>
<tr>
<td>• 30% REGULAR/70% NHP</td>
</tr>
<tr>
<td>• HUMAN GENETICALLY ENGINEERED</td>
</tr>
<tr>
<td><strong>MONOTARD</strong></td>
</tr>
<tr>
<td>• 2.5 HRS ONSET OF ACTION</td>
</tr>
<tr>
<td>• 7-15 HRS PEAK</td>
</tr>
<tr>
<td>• 22 HRS DURATION</td>
</tr>
<tr>
<td>• INSULIN ZINC SUSPENSION</td>
</tr>
<tr>
<td>• HUMAN GENETICALLY ENGINEERED INSULIN</td>
</tr>
<tr>
<td><strong>LILLY</strong></td>
</tr>
<tr>
<td><strong>HUMULIN R</strong></td>
</tr>
<tr>
<td>• .5 HR ONSET OF ACTION</td>
</tr>
<tr>
<td>• 1-3 HRS PEAK</td>
</tr>
<tr>
<td>• 5-7 HRS DURATION</td>
</tr>
<tr>
<td>• SOLUBLE, REGULAR INSULIN</td>
</tr>
<tr>
<td>• HUMAN INSULIN rDNA origin.</td>
</tr>
<tr>
<td><strong>HUMULIN N</strong></td>
</tr>
<tr>
<td>• 1 HRS ONSET OF ACTION</td>
</tr>
<tr>
<td>• 2-3 HRS PEAK</td>
</tr>
<tr>
<td>• 18-20 HRS DURATION</td>
</tr>
<tr>
<td>• ISOPHANE INSULIN, NHP</td>
</tr>
<tr>
<td>• HUMAN INSULIN, rDNA ORIGIN</td>
</tr>
<tr>
<td><strong>HUMULIN 30/70</strong></td>
</tr>
<tr>
<td>• .5 HRS ONSET OF ACTION</td>
</tr>
<tr>
<td>• 1-8 HRS PEAK</td>
</tr>
<tr>
<td>• 14-16 HRS DURATION</td>
</tr>
<tr>
<td>• 30% HUMAN INSULIN rDNA, 70% INSULIN ISOPHANE SUSPENSION.</td>
</tr>
<tr>
<td><strong>HUMULIN L</strong></td>
</tr>
<tr>
<td>• 2 HRS ONSET OF ACTION</td>
</tr>
<tr>
<td>• 6-8 HRS PEAK</td>
</tr>
<tr>
<td>• 22-24 HRS DURATION</td>
</tr>
<tr>
<td>• LENTE INSULIN, ZINC SUSPENSION</td>
</tr>
<tr>
<td>• HUMAN INSULIN, rDNA ORIGIN</td>
</tr>
</tbody>
</table>
NOVORAPID (INSULIN ASPART)

- AMINO ACID, B28-PROLINE, REPLACED WITH ASPARTIC ACID
- 10-20 MIN ONSET OF ACTION
- 1-3 HRS PEAK
- 3-5 DURATION

HUMALOG (INSULIN LISPRO)

- AMINO ACIDS B28, B29 SWAPPED LYSIE @ B28 AND PROLINE @B29
- 0-15 MIN ONSET OF ACTION
- 1HR PEAK
- 3-5HRS DURATION