Table S1. The results of including papers for prevalence of physical inactivity in Iran

| No | Citation                     | Lev<br>el/<br>Plac<br>e of | Type<br>of<br>study | Year<br>of<br>study | Samp<br>le size                           | Age<br>Range | Diagno<br>sis<br>criteria<br>or tools | Mode of<br>Reporting   | Outcome (physical activity |      |  |
|----|------------------------------|----------------------------|---------------------|---------------------|---|--------------|---------------------------------------|--|----------------------------|------|--|
|    |                              | stud<br>y                  |                     |                     |   |              |                                       |  | Female                     | Male | Overall  |
| 1  | Janghorb<br>ani et<br>al(14) | Nati<br>onal               | Surve<br>y          | 2005                | 45082<br>men<br>and<br>44322<br>wome<br>n | 15-65        | GPAQ                                  | % of subjects with LPA according to never married, married and formerly married  | -                          | -    | Never married, 44.9<br>Married, 23.6<br>Formerly married, 16.3<br>Total: 27.93 |
| 2  | Janghorb<br>ani et<br>al(23) | Nati<br>onal               | Surve<br>y          | 2005                | 89404                                     | 15-65        | GPAQ                                  | % of<br>subjects with<br>LPA   | 20.3                       | 35.4 | -  |
| 3  | Alikhani<br>et al (15)       | Nati<br>onal               | Surve<br>y          | 2005                | 70,98<br>1                                | 25–64        | GPAQ                                  | Mean time (95%CI) (minute) spent in OPA per day,  Mean time (95%CI) (minute) spent in transport- related activity per day  Mean time (95%CI) (minute) spent in recreational PA per day | -                          | -    | 27.5 (26.3–28.8)<br>43.8 (42.3–45.4)<br>28.6 (27.3–30.0)                       |

|  | 1  | 1  |  | 1   | 1     | 1     |      | 1                          |                                     | 1                               |    |
|--|--|--|--|---|-------|-------|------|----------------------------|-------------------------------------|---------------------------------|----|
| -  | Low: 31.6<br>Moderate:<br>22.3<br>High: 46.1 | Low: 48.6  Moderat e: 27.1  High: 24.3         | % of subjects<br>with PA   | GPAQ  | 25–64 | 3001  | 2007 | Surve<br>y                 | Nati<br>onal                        | Estegha<br>mati et<br>al(24)    | 4  |
| Low: 39.1%<br>Moderate: 17.8%<br>High: 43.1% | -  | -  | % (95% CI)<br>of subjects<br>with PA                               | IPAQ  | 25-64 | 4121  | 2011 | Surve                      | Nati<br>onal                        | Koohpay<br>ehzadeh<br>et al(25) | 5  |
| -  | 67.0<br>(65.45-<br>68.49)                    | 73.8<br>(72.34-<br>75.15)                      | % (95% CI)<br>of subjects<br>with physical<br>inactivity           | BRFSS   | ≥ 25  | 3723  | 2004 | Surve<br>y                 | Provincia 1 ( Bou sheh r)           | PGHHS<br>2003,<br>2004<br>(26)  | 6  |
| -  | 71.3<br>(70.02-<br>72.55)                    | 79.5<br>(78.35-<br>80.61)                      | % (95% CI)<br>of subjects<br>with physical<br>inactivity           | running , jogging, swimmi ng, bicyclin g or walking at least 30 min at a time per day | 20-65 | 5000  |      | Surve<br>y (<br>GCR<br>FS) | Provincia 1 ( Gole sta)n            | Golestan<br>2005,<br>2006       | 7  |
| -  | 22 (19.91-<br>24.14)                         | 32<br>(29.63-<br>34.38)                        | % (95% CI)<br>of subjects<br>with physical<br>inactivity           | Minnes<br>ota   | > 15  | 1520  |      | Indivi<br>dual<br>data     | Prov<br>incia<br>1<br>(Isfa<br>han) | Sadeghi<br>et al(27)            | 8  |
| -  | 519.46±68<br>1.82,<br>3621.68±2<br>667.0     | 460.51±<br>663.32,<br>4498.91<br>±2238.9<br>9, | Mean ±SD of<br>LPA (Met-<br>Min. Week),<br>OPA (Met-<br>Min. Week) | Baecke  | -     | 4178  | 2001 | Surve<br>y                 | Prov<br>incia<br>1<br>(Isfa<br>han) | Saidei et<br>al (28)            | 9  |
| 15.3 (14.66-15.93)                           | -  | -  | % (95% CI)<br>of subjects<br>with regular<br>PA                    | Baecke  | > 19  | 12514 | 2002 | Surve<br>y                 | Prov<br>incia                       | Sadeghi<br>et al(29)            | 10 |

|    |                                 | (Isfa                                      |                                      |      |                                      |   |  |   |  |   |   |
|----|---------------------------------|--|--------------------------------------|------|--------------------------------------|---|--|---|--|---|---|
|    |                                 | han)                                       |                                      |      |                                      |   |  |   |  |   |   |
| 11 | Sarrafza<br>degan et<br>al(19)  | Prov<br>incia<br>1<br>(Isfa<br>han)        | Surve<br>y                           | 2000 | 4178                                 | -   | Baecke   | % (95% CI)<br>of subjects<br>with<br>moderate or<br>vigorous PA                             | -  | -   | 50.3 (48.75-51.81)  |
| 12 | Mousavi<br>et al (30)           | Prov<br>incia<br>1<br>(Isfa<br>han)        | Surve<br>y                           | 2005 | 6331<br>femal<br>e                   | 1   | Baecke   | % (95% CI) of Physically inactive subjects  | -  | -   | 75.7 (74.61-76.74)<br>[without MS]  |
| 13 | Bahonar<br>et al(18)            | Prov<br>incia<br>1<br>(Isfa<br>han)        | Surve<br>y                           | 2001 | 12541                                | 38.40 ± 14.30                                     | Baecke   | % of subjects<br>with<br>LPA  | 70.3   | 98.7  |   |
| 14 | Hajian-<br>Tilaki et<br>al (20) | Regi<br>onal<br>(<br>Nort<br>h of<br>Iran) | Indivi<br>dual                       | -    | 1800<br>wome<br>n and<br>1800<br>men | F:37.5<br>±13 and<br>M:38.5±1<br>4.3 years<br>old | Not<br>indicate<br>d   | Exercise (Hours/week) OPA (low, moderate, severe); LPA (very low, low, high, very high) and | ≤ 2 h/w:<br>72%, 3-<br>5≤: 28%/<br>OPA (<br>low:<br>59.6%)/<br>LPA<br>(very<br>low and<br>low:77.2                   | ≤ 2 h/w:<br>86.4%, 3-<br>5≤: 13.7%/<br>OPA (<br>low: 69%)/<br>LPA (very<br>low and<br>low:65.4%                           | ≤2 h/w: 79.2%, 3-5≤: 20.8%/ OPA ( low: 64.3%)/<br>LPA (very low and low:81.1%)                    |
| 15 | Hajian-<br>Tilaki et<br>al (31) | Bab<br>ol                                  | Indivi<br>dual                       | 2008 | 1200                                 | 12-17<br>14.2±1.7                                 | Baecke   | % of subjects with LPA  | -  | -   | The levels of high, moderate and low leisure-time PA were 2.9 %, 79.4 % and 17.7 %, respectively. |
| 16 | Dastgiri<br>et al (32)          | Regi<br>onal<br>(<br>Nort<br>h of<br>Iran) | Indivi<br>dual                       | 2005 | 300                                  | > 18  | Nationa<br>1 Health<br>and<br>Nutritio<br>n<br>Examin<br>ation<br>Survey | % (95 % CI)<br>of subjects<br>with<br>recreational<br>PA                                    | Heavy:<br>7.6<br>(3.47-<br>12.14)<br>Moderat<br>e: 73.8<br>(66.74-<br>80.28),<br>Light:<br>18.4<br>(12.89-<br>25.15) | Heavy:9.8<br>(5.34-<br>16.25)<br>Moderate:<br>78 (69.99-<br>84.76),<br>11.4 (6.50-<br>18.04)<br>Light: 0.8<br>(0.01-4.14) | -   |
| 17 | Ghodous<br>i et<br>al(33)       | Prov<br>incia<br>1<br>(Teh<br>ran)         | Surve<br>y (<br>TLGS,<br>Phase<br>I) | 2001 | 11000                                | 20-69   | Lipid<br>Researc<br>h Clinic   | % (95% CI)<br>of subjects<br>light,<br>moderate,<br>and heavy                               | -  | -   | 62.8 (61.88-63.70),<br>13 (12.37-13.64),<br>24.2 (23.40-25.01)                                    |

| 18 | Azadbak<br>ht et al<br>(34) | Prov<br>incia<br>1<br>(Teh<br>ran) | Indivi<br>dual | 2001 | F: 926      | 40-60 | Internat<br>ional<br>PA<br>questio<br>nnaire | % (95% CI)<br>of subjects<br>with light,<br>moderate,<br>and heavy PA | -   | -   | Light: 45 (41.68-48.19) Moderate: 30 (26.97-32.97) Heavy: 25 (22.18-27.86) n-2007 |
|----|-----------------------------|------------------------------------|----------------|------|-------------|-------|--|---|---|---|---|
| 19 | Mirmira<br>n et<br>al(35)   | Prov<br>incia<br>1<br>(Teh<br>ran) | Surve<br>y     | 2000 | 840         | 18-74 | Lipid<br>Researc<br>h Clinic                 | % (95% CI)<br>of subjects<br>with light,<br>moderate and<br>heavy PA  | -   | -   | Light: 57 (47.79-64.78), Moderate: 30 (22.55-38.31)<br>Heavy: 13 (7.8-19.55)      |
| 20 | Mirmira<br>n et<br>al(21)   | Prov<br>incia<br>1<br>(Teh<br>ran) | Surve<br>y     | 2000 | 462         | > 16  | Lipid<br>Researc<br>h Clinic                 | % of subjects<br>with light,<br>moderate and<br>heavy PA              | Light: 50<br>Moderat<br>e: 31<br>Heavy:1<br>9 | Light: 55<br>Moderate :<br>32<br>Heavy:13   |   |
| 21 | Sabet et<br>al (36)         | Prov<br>incia<br>l<br>(Teh<br>ran) | Surve<br>y     | -    | 836<br>male | ≥ 20  | Lipid<br>Researc<br>h Clinic                 | % (95% CI) of subjects with vigorous, moderate PA and inactive        | -   | Vigorous: 17.8 (15.17- 20.46) Moderate: 17.5 (14.94- 20.21) Inactive: 64.2 (60.63- 67.25) | -   |

| 22 | Hadaegh<br>et al (22)           | Prov<br>incia<br>1<br>(Teh<br>ran)       | Surve<br>y                            | -    | 3444  | ≥ 20  | Lipid<br>Researc<br>h Clinic  | % (95% CI)<br>of subjects<br>with low and<br>high PA  | Low:<br>40.4<br>(38.74-<br>42.04),<br>High:<br>59.6<br>(57.92-<br>61.22) | Low: 37.6<br>(35.95-<br>39.21),<br>High: 62.4<br>(62.07-<br>65.31) | -   |
|----|---------------------------------|--|---------------------------------------|------|---|-------|---|---|--|--|---|
| 23 | Harati et al(37)                | Prov<br>incia<br>1<br>(Teh<br>ran)       | Surve<br>y (<br>TLGS,<br>Phase<br>II) | 2005 | Contr<br>ol:<br>5114;<br>Interv<br>ention<br>: 3098 | > 20  | Modifia<br>ble<br>Activity<br>Questio<br>nnaire   | % (95% CI)<br>of subjects<br>with low,<br>moderate and<br>heavy PA                              | -  | -  | Low: 66 (64.67-67.29),<br>Moderate: 12 (11.10-12.90)<br>Heavy: 22 (20.86-23.15) |
| 24 | MONIC<br>A                      | Prov<br>incia<br>l<br>(Bou<br>sheh<br>r) | Surve<br>y                            | 2003 | 1574  | 25-64 | MONI<br>CA  | % (95% CI)<br>of subjects<br>with no PA   | -  | -  | 16.8 (14.17-17.85)  |
| 25 | Motefak<br>er et<br>al(38)      | Prov<br>incia<br>1<br>(Yaz<br>d)         | Indivi<br>dual<br>data                | -    | 1500  | > 20  | Internat<br>ional<br>PA<br>questio<br>nnaire  | % (95% CI)<br>of subjects<br>with<br>inactivity,<br>sufficient<br>activity and<br>high activity | -  | -  | 67.3 (64.55-69.37),<br>15 (13.22-16.90),<br>17.7 (15.13-18.99)                  |
| 26 | The<br>CASPIA<br>N III<br>study | Nati<br>onal                             | Surve<br>y                            | 2010 | 5623<br>stude<br>nts<br>from<br>27<br>provi<br>nces | 10-18 | at least30 minutes duratio n of exercise s per day which was led to heavy sweatin g or large increase | % of<br>subjects with<br>PA   | Low:81.<br>3<br>High<br>:18.7  | Low:88.4<br>High: 11.6   | Low:84.9<br>High: 15.1  |

|    |  |              |            |      |  |               | s in<br>breathin<br>g or<br>heart<br>rate   |                             |   |   |                                |
|----|--|--------------|------------|------|--|---------------|---|-----------------------------|---|---|--------------------------------|
| 27 | The<br>CASPIA<br>N IV<br>study   | Nati<br>onal | Surve<br>y | 2012 | 14683<br>from<br>30<br>provi<br>nces   | 6-18<br>years | at least30 minutes duratio n of exercise s per day which was led to heavy sweatin g or large increase s in breathin g or heart rate | % of subjects with PA       | Inactive:<br>39.61,<br>Active:<br>60.39 | Inactive:<br>28.75,<br>Active:<br>71.25 | Inactive: 34.11, Active: 65.89 |
| 28 | The CASPIA N IV study (the weight disorders determin ants study) Age: 6-18 years | Nati<br>onal | Surve<br>y | 2012 | 22841<br>from<br>30<br>provi<br>nces<br>(n:<br>11244,<br>n<br>boys:<br>11597 | 6-18<br>years | at least30 minutes duratio n of exercise s per day which was led to heavy sweatin g or large increase s in breathin                 | % of<br>subjects with<br>PA | Inactive:<br>33.42,<br>Active:<br>66.58 | Inactive:<br>13.84,<br>Active:<br>86.16 | Inactive: 23.48, Active: 76.52 |

|    |                      |                                     |                        |      |      |  | g or<br>heart<br>rate   |   |              |   |               |
|----|----------------------|-------------------------------------|------------------------|------|------|--|---|---|--------------|---|---------------|
| 29 | Emdadi<br>et al (39) | Loca<br>l (Ha<br>mad<br>an<br>city) | Indivi<br>dual<br>data | 2015 | 866  | 40-64<br>years<br>Mean<br>49.82±6.<br>91 | Questio<br>nnaire<br>for<br>self-<br>efficacy<br>toward<br>PA   | PA (%) ( inactive (light level) or not sufficiently active) | Inactive: 57 | - | -             |
| 30 | Moradi<br>et al (40) | Provincia l (Kur dista n )          | Surve<br>y             | 2005 | 2494 | 39.08±14<br>.37                          | inactivit y was defined as a low level of activity, that is, no or low level of PA at home, at work, during leisure, or during outdoor activitie s and travel | % (95% CI)<br>of Physical<br>inactivity                     | -            | - | 16.9 (15, 18) |

| 31 | Moradi<br>et al (40)          | Provincia I (Kur dista n )            |                                  | 2009 | 997  | Mean<br>39.77±14<br>.24 | physica Ily inactivit y was defined as a low level of activity, that is, less than 150 minutes of normal PA per week or less than 60 minutes of intense activity per week at home, at work, during leisure, or during outdoor activitie s and travel | % (95% CI)<br>of physical<br>inactivity         | -    | -    | 26.8 (23, 29) |
|----|-------------------------------|---------------------------------------|----------------------------------|------|--|-------------------------|--|---|------|------|---------------|
| 32 | Sanaeina<br>sab et al<br>(41) | Loca<br>1<br>(Kh<br>ora<br>mab<br>ad) | cross-<br>sectio<br>nal<br>surve | -    | 1551<br>(941<br>boys<br>and<br>610<br>girls).<br>61%<br>boys<br>39%<br>girls | 12-14                   | e the<br>amount<br>of time<br>devoted<br>to PA<br>during<br>the<br>previou<br>s week   | % of<br>subjects with<br>physical<br>inactivity | 80.9 | 96.7 | 87.1          |

| 33 | Soltania<br>n et al<br>(42) | Provincia 1 (Bou sheh r) | Menta I Healt h Study (MHS ), a popul ation based study of adoles cents | 2005 | 2584<br>adoles<br>cents<br>(1401<br>male<br>and<br>1178<br>femal<br>e)   | 15-19    | The short-form of the Iranian version of the Internat ional PA Questio nnaire (IPAQ)   | % of<br>subjects with<br>PA | Inaction: 49.4, minimall y active:28 .3, HEPA- active: 22.3 | Inaction:<br>68.9,<br>minimally<br>active:18.5<br>, HEPA-<br>active:<br>12.6 | Inaction: 58.3, minimally active:23.8, HEPA- active: 17.8 |
|----|-----------------------------|--------------------------|---|------|--|----------|--|-----------------------------|---|--|---|
| 34 | Pazoki<br>et al (43)        | Provincia 1 (Bou sheh r) | indivi<br>dual  | -    | 335 The partici pants were comm unity memb ers, acade mic resear chers, health care provi ders, and policy maker s | F: 25–64 | rat both registrat ion time and week 8, particip ants complet e a 7-Day PA recall question nnaire based on the BRFSS; USA/C DC, 2002 | % of<br>subjects with<br>PA |   | Moderate<br>PA: 26.59<br>Vigorous<br>PA: 3.61                                |   |

Abbreviation: PA: physical activity; GPAQ: Global physical activity Questionnaire; IPAQ: International physical activity Questionnaire; CASPIAN: Childhood and Adolescence Surveillance and PreventIon of Adult Non-communicable disease; BRFSS: Behavioral Risk Factor Surveillance System; PGHHS: Iran Persian Gulf Healthy Heart Study; HEPA: Health-Enhancing PA; MET: Metabolic Equivalent of Task; TLGS: Tehran Lipid and Glucose Study; GCRFS: Golestan Cardiovascular Risk Factors Study; LPA: Leisure Time Physical Activity; OPA: Occupational Physical Activity