**Table 1: Accepted Cardiac Rehabilitation Indications, by Region§**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| n (%) | African  (n=18) | Americas  (n=261) | EMR  (n=24) | European  (n=484) | SEAR  (n=32) | Western  Pacific  (n=263) | Total  (N=1082) | p○ |
| Cardiac |  |  |  |  |  |  |  |  |
| Post-Myocardial Infarction / acute coronary syndrome | 16 (100.0%) | 228  (99.1%) | 17 (94.4%) | 338 (96.9%) | 24 (96.0%) | 210 (94.6%) | 833 (97.4%) | 0.69 |
| Percutaneous Coronary Intervention | 13 (81.3%) | 225 (97.8%) | 16 (88.9%) | 329 (95.9%) | 21 (84.0%) | 216 (97.7%) | 820 (96.1%) | 0.10 |
| CABG surgery | 12 (75.0%) | 227  (98.7%) | 18 (100.0%) | 326 (95.0%) | 25 (100.0%) | 209 (94.6%) | 817 (95.8%) | 0.11 |
| Heart Failure | 14 (87.5%) | 219 (95.2%) | 15 (83.3%) | 288 (84.0%) | 22 (88.0%) | 199 (90.0%) | 757 (88.7%) | 0.46 |
| Valve procedure | 13 (81.3%) | 218 (94.8%) | 15 (83.3%) | 300 (87.5%) | 17 (68.0%) | 173 (78.3%) | 736 (86.3%) | 0.16 |
| Stable coronary artery disease, without a recent event or procedure | 16 (100.0%) | 197 (85.7%) | 15 (83.3%) | 254 (74.1%) | 19 (76.0%) | 191 (86.4%) | 692 (81.1%) | 0.26 |
| Rhythm device | 12 (75.0%) | 186 (80.9%) | 13 (72.2%) | 281 (81.9%) | 13 (52.0%) | 158 (71.5%) | 663 (77.7%) | 0.17 |
| Cardiomyopathy | 14 (87.5%) | 196 (85.2%) | 13 (72.2%) | 245 (71.4%) | 12 (48.0%) | 161 (72.9%) | 641 (75.1%) | 0.57 |
| Arrhythmias | 12 (75.0%) | 174 (75.7%) | 11 (61.1%) | 202 (58.9%) | 13 (52.0%) | 154 (69.7%) | 566 (66.4%) | 0.16 |
| Congenital heart disease | 13 (81.3%) | 158 (68.7%) | 12 (66.7%) | 180 (52.5%) | 15 (56.0%) | 115 (52.0%) | 492 (57.7%) | 0.23 |
| Heart transplant | 11 (68.8%) | 157 (68.3%) | 11 (61.1%) | 197 (57.4%) | 5  (20.0%) | 89 (40.3%) | 470 (55.1%) | 0.08 |
| Ventricular assist devices | 8  (50.0%) | 152 (66.1%) | 10 (55.6%) | 170 (49.6%) | 5  (20.0%) | 93 (42.1%) | 438 (51.3%) | 0.12 |
| Rheumatic heart disease | 10 (62.5%) | 151 (65.7%) | 12 (66.7%) | 136 (39.7%) | 11 (44.0%) | 115 (52.0%) | 435 (51.0%) | 0.15 |
| Non-cardiac |  |  |  |  |  |  |  |  |
| High-risk / primary prevention | 15 (93.8%)  †  \*\*\*  ǂǂǂ | 154 (67.0%)  †  ‖‖  ◊ | 12 (66.7%) | 158 (46.1%)  \*\*\*  ‖‖ | 18 (72.0%) | 136 (61.5%)  ǂǂǂ  ◊ | 493 (57.8%) | <0.05 |
| Intermittent claudication/ peripheral vascular disease | 10 (62.5%) | 138 (60.0%) | 7  (38.9%) | 161 (46.9%) | 12 (48.0%) | 95 (43.0%) | 423 (49.6%) | 0.12 |
| Diabetes | 14 (87.5%)  †††  \*\* | 133 (57.8%)  ǂǂ | 12 (66.7%) | 137 (39.8%)  †††  ǂǂ | 15 (60.0%) | 110 (49.8%)  \*\* | 421 (49.3%) | <0.05 |
| Chronic lung disease | 14 (87.5%) | 105 (45.7%) | 9  (50.0%) | 115 (33.4%) | 10 (40.0%) | 85 (38.5%) | 338 (39.6%) | 0.16 |
| Stroke / transient ischemic attack | 12 (75.0%) | 73 (31.7%) | 6  (33.3%) | 86 (25.1%) | 7  (28.0%) | 71 (32.1%) | 255 (29.9%) | 0.37 |
| Cancer | 12 (75.0%)  ¶¶ | 51 (22.2%) | 3  (16.7%) | 52 (15.2%) | 7  (28.0%) | 38 (17.2%) | 1623 (19.1%) | <0.05 |

§data shown by country for most common indications in Supplemental Table 1.

○test for significant differences by region, using generalized linear mixed models which accounted for clustering of programs within countries.

For pairwise comparisons \*ǂ†◊‖: one symbol=p<.05; two symbols=p<.01; 3 symbols=p<.001.

¶¶Significantly different from all regions: p<.01.

SEA=South-East Asia; EM=Eastern Mediterranean; CABG=Coronary artery bypass graft;

# **Table 2: Most common cardiac rehabilitation indications accepted by region and country**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **WHO Region** | **MI/ACS** | **PCI** | **CABG** | **HF** | **Valve procedure** |
| Country |
| **African** |  |  |  |  |  |
| Algeria | - | - | - | - | - |
| Kenya | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Mauritius | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) |
| Nigeria | 1 (100.0%) | 0 (0.0%) | 0 (0.0%) | 1 (100.0%) | 0 (0.0%) |
| South Africa | 13 (100.0%) | 11 (84.6%) | 10 (76.9%) | 11 (84.6%) | 12 (92.3%) |
| *Regional Total (mean %)* | 16 (100.0%) | 13 (81.3%) | 12 (75.0%) | 14 (87.5%) | 13 (81.3%) |
| **Americas** |  |  |  |  |  |
| Argentina | 3 (100.0%) | 2 (66.7%) | 3 (100.0%) | 3 (100.0%) | 3 (100.0%) |
| Barbados | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Bermuda | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0% |
| Brazil | 23 (100.0%) | 21 (91.3%) | 23 (100.0%) | 22 (95.7%) | 19 (82.6%) |
| Canada | 46 (100.0%) | 46 (100.0%) | 46 (100.0%) | 44 (95.7%) | 46 (100.0%) |
| Chile | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Colombia | 47 (100.0%) | 47 (100.0%) | 46 (97.9%) | 47 (100.0%) | 46 (97.9%) |
| Costa Rica | 6 (100.0%) | 6 (100.0%) | 6 (100.0%) | 5 (83.3%) | 6 (100.0%) |
| Cuba | 7 (100.0%) | 7 (100.0%) | 7 (100.0%) | 6 (85.7%) | 7 (100.0%) |
| Curacao | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Dominican Republic | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Ecuador | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 1 (50.0%) | 1 (50.0%) |
| Guatemala | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) |
| Honduras | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Jamaica | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Mexico | 9 (100.0%) | 9 (100.0%) | 9 (100.0%) | 9 (100.0%) | 8 (88.9%) |
| Panama | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Paraguay | 3 (100.0%) | 3 (100.0%) | 3 (100.0%) | 2 (66.7%) | 2 (66.7%) |
| Peru | 6 (85.7%) | 7 (100.0%) | 7 (100.0%) | 6 (85.7%) | 5 (71.4%) |
| United States of America | 54 (98.2%) | 53 (96.4%) | 53 (96.4%) | 53 (96.4%) | 54 (98.2%) |
| Uruguay | 5 (100.0%) | 5 (100.0%) | 5 (100.0%) | 5 (100.0%) | 5 (100.0%) |
| Venezuela | 7 (100.0%) | 7 (100.0%) | 7 (100.0%) | 6 (85.7%) | 7 (100.0%) |
| *Regional Total (mean %)* | 228 (99.1%) | 225 (97.8%) | 227 (98.7%) | 219 (95.2%) | 218 (94.8%) |
| **Eastern Mediterranean** |  |  |  |  |  |
| Afghanistan | - | - | - | - | - |
| Bahrain | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Egypt | - | - | - | - | - |
| Iran | 11 (91.7%) | 10 (83.3%) | 12 (100.0%) | 10 (83.3%) | 11 (91.7%) |
| Lebanon | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Morocco | - | - | - | - | - |
| Pakistan | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 1 (50.0%) | 1 (50.0%) |
| Qatar | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Tunisia | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) |
| *Regional Total (mean %)* | 17 (94.4%) | 16 (88.9%) | 18 (100.0%) | 15 (83.3%) | 15 (83.3%) |
| **Europe** |  |  |  |  |  |
| Austria | 5 (100.0%) | 5 (100.0%) | 5 (100.0%) | 4 (80.0%) | 5 (100.0%) |
| Belarus | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Belgium | 7 (100.0%) | 7 (100.0%) | 7 (100.0%) | 6 (85.7%) | 7 (100.0%) |
| Bosnia and Herzegovina | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0% |
| Bulgaria | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Croatia | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 1 (50.0%) | 2 (100.0%) |
| Czech Republic | 4 (100.0%) | 3 (75.0%) | 3 (75.0%) | 4 (100.0%) | 3 (75.0%) |
| Denmark | 6 (100.0%) | 6 (100.0%) | 6 (100.0%) | 6 (100.0%) | 6 (100.0%) |
| England | 43 (100.0%) | 42 (97.7%) | 43 (100.0%) | 36 (83.7%) | 441 (95.3%) |
| Estonia | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Finland | 3 (100.0%) | 2 (66.7%) | 2 (66.7%) | 2 (66.7%) | 2 (66.7%) |
| France | 11 (100.0%) | 11 (100.0%) | 11 (100.0%) | 11 (100.0%) | 11 (100.0%) |
| Georgia | 6 (100.0%) | 6 (100.0%) | 6 (100.0%) | 1 (16.7%) | 3 (50.0%) |
| Germany | 25 (100.0%) | 25 (100.0%) | 24 (96.0%) | 25 (100.0%) | 25 (100.0%) |
| Greece | 3 (75.0%) | 3 (75.0%) | 3 (75.0%) | 4 (100.0%) | 2 (50.0%) |
| Hungary | 15 (100.0%) | 15 (100.0%) | 15 (100.0%) | 15 (100.0%) | 14 (93.3%) |
| Iceland | 3 (100.0%) | 3 (100.0%) | 3 (100.0%) | 3 (100.0%) | 3 (100.0%) |
| Ireland | 4 (80.0%) | 5 (100.0%) | 5 (100.0%) | 5 (100.0%) | 5 (100.0%) |
| Israel | 5 (100.0%) | 5 (100.0%) | 5 (100.0%) | 5 (100.0%) | 5 (100.0%) |
| Italy | 50 (98.0%) | 48 (94.1%) | 51 (100.0%) | 47 (92.2%) | 49 (96.1%) |
| Kazakhstan | - | - | - | - | - |
| Latvia | - | - | - | - | - |
| Lithuania | 4 (100.0%) | 3 (75.0%) | 3 (75.0%) | 1 (25.0%) | 3 (75.0%) |
| Macedonia | - | - | - | - | - |
| Malta | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Netherlands | 11 (100.0%) | 11 (100.0%) | 11 (100.0%) | 11 (100.0%) | 10 (90.9%) |
| Northern Ireland | 10 (100.0%) | 10 (100.0%) | 10 (100.0%) | 10 (100.0%) | 10 (100.0%) |
| Poland | 10 (100.0%) | 10 (100.0%) | 10 (100.0%) | 10 (100.0%) | 10 (100.0%) |
| Portugal | 16 (94.1%) | 16 (94.1%) | 16 (94.1%) | 12 (70.6%) | 13 (76.5%) |
| Republic of Moldova | - | - | - | - | - |
| Romania | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 1 (50.0%) | 1 (50.0%) |
| Russian Federation | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) |
| Scotland | 19 (100.0%) | 19 (100.0%) | 18 (94.7%)) | 19 (100.0%) | 19 (100.0%) |
| Serbia | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Slovak Republic | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Slovenia | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 1 (50.0%) |
| Spain | 40 (97.6%) | 37 (90.2%) | 32 (78.0%) | 25 (61.0%) | 23 (56.1%) |
| Sweden | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) |
| Switzerland | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) |
| Turkey | 7 (100.0%) | 7 (100.0%) | 7 (100.0%) | 6 (85.7%) | 4 (57.1%) |
| Wales | 14 (100.0%) | 14 (100.0%) | 14 (100.0%) | 9 (64.3%) | 14 (100.0%) |
| *Regional Total (mean %)* | 338 (96.9%) | 329 (95.9%) | 326 (95.0%) | 288 (84.0%) | 300 (87.5%) |
| **South-East Asia** |  |  |  |  |  |
| Bangladesh | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) |
| India | 13 (100.0%) | 10 (76.9%) | 13 (100.0%) | 11 (84.6%) | 9 (69.2%) |
| Indonesia | 8 (100.0%) | 8 (100.0%) | 8 (100.0%) | 8 (100.0%) | 6 (75.0%) |
| Nepal | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Sri Lanka | 1 (50.0%) | 2 (100.0%) | 2 (100.0%) | 1 (50.0%) | 1 (50.0%) |
| *Regional Total (mean %)* | 24 (96.0%) | 21 (84.0%) | 25 (100.0%) | 22 (88.0%) | 17 (68.0%) |
| **Western Pacific** |  |  |  |  |  |
| Australia | 70 (97.2%) | 69 (97.2%) | 70 (98.6%) | 67 (94.4%) | 69 (97.2%) |
| Brunei Darussalam | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 1 (50.0%) |
| China | 63 (90.0%) | 68 (97.1%) | 61 (87.1%) | 59 (84.3%) | 36 (51.4%) |
| Japan | 6 (100.0%) | 6 (100.0%) | 6 (100.0%) | 6 (100.0%) | 5 (83.3%) |
| Malaysia | 3 (100.0%) | 3 (100.0%) | 3 (100.0%) | 3 (100.0%) | 2 (66.7%) |
| Mongolia | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| New Zealand | 20 (90.9%) | 22 (100.0%) | 22 (100.0%) | 20 (90.9%) | 22 (100.0%) |
| Philippines | 10 (100.0%) | 10 (100.0%) | 10 (100.0%) | 10 (100.0%) | 10 (100.0%) |
| Singapore | 7 (100.0%) | 7 (100.0%) | 7 (100.0%) | 7 (100.0%) | 5 (71.4%) |
| South Korea | 11 (91.7%) | 12 (100.0%) | 10 (83.3%) | 11 (91.7%) | 7 (58.3%) |
| Taiwan | 17 (100.0%) | 16 (94.1%) | 17 (100.0%) | 13 (76.5%) | 15 (88.2%) |
| *Regional Total (mean %)* | 210 (94.6%) | 216 (97.7%) | 209 (94.6%) | 199 (90.0%) | 173 (78.3%) |
| **Global Total (mean %)** | 833 (97.4%) | 820 (96.1%) | 817 (95.8%) | 757 (88.7%) | 736 (86.3%) |

MI/ACS=myocardial infarction / acute coronary syndrome; CABG=coronary artery bypass graft; HF=heart failure; PCI=percutaneous coronary intervention; WHO=World Health Organization

-= missing;

# **Table 3: Most common healthcare professional types on cardiac rehabilitation team by region and country**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Region** | **Nurse** | **Dietitian** | **Physiotherapist** | **Administrative assistant/ secretary** | **Cardiologist** |
| Country |
| **African** |  |  |  |  |  |
| Algeria | - | - | - | - | - |
| Kenya | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Mauritius | 0 (0.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 0 (0.0%) |
| Nigeria | 0 (0.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| South Africa | 2 (18.2%) | 11 (84.6%) | 8 (66.7%) | 9 (81.8%) | 7 (58.3%) |
| *Regional Total (mean %)* | 3 (21.4%) | 14 (87.5%) | 11 (73.3%) | 10 (71.4%) | 9 (60.0%) |
| **Americas** |  |  |  |  |  |
| Argentina | 0 (0.0%) | 1 (33.3%) | 1 (33.3%) | 3 (100.0%) | 3 (100.0%) |
| Barbados | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) | 1 (100.0%) |
| Bermuda | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Brazil | 11 (50.0%) | 12 (54.5%) | 18 (75.0%) | 12 (54.5%) | 16 (69.6%) |
| Canada | 40 (87.0%) | 43 (93.5%) | 28 (62.2%) | 40 (87.0%) | 27 (60.0%) |
| Chile | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) | 1 (100.0%) |
| Colombia | 36 (78.3%) | 24 (52.2%) | 46 (97.9%) | 39 (86.7%) | 35 (76.1%) |
| Costa Rica | 5 (100.0%) | 5 (100.0%) | 3 (75.0%) | 2 (50.0%) | 4 (80.0%) |
| Cuba | 6 (85.7%) | 5 (71.4%) | 6 (100.0%) | 3 (50.0%) | 6 (85.7%) |
| Curacao | 0 (0.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Dominican Republic | 1 (100.0%) | - | 1 (100.0%) | 1 (100.0%) | - |
| Ecuador | 1 (50.0%) | 1 (100.0%) | 1 (100.0%) | 2 (100.0%) | 2 (100.0%) |
| Guatemala | 2 (100.0%) | 1 (50.0%) | 0 (0.0%) | 1 (50.0%) | 2 (100.0%) |
| Honduras | 0 (0.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%)) |
| Jamaica | 0 (0.0%) | 0 (0.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Mexico | 6 (75.0%) | 7 (87.5%) | 7 (77.8%) | 8 (88.9%) | 8 (100.0%) |
| Panama | 0 (0.0%) | 0 (0.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) |
| Paraguay | 1 (33.3%) | 3 (100.0%) | 3 (100.0%) | 2 (66.7%) | 3 (100.0%) |
| Peru | 5 (71.4%) | 6 (85.7%) | 6 (85.7%) | 2 (28.6%) | 7 (100.0%) |
| United States | 53 (93.0%) | 49 (86.0%) | 9 (16.4%) | 26 (47.3%) | 45 (78.9%) |
| Uruguay | 2 (40.0%) | 3 (60.0%) | 2 (40.0%) | 3 (60.0%) | 5 (100.0%) |
| Venezuela | 3 (50.0%) | 6 (75.0%) | 7 (100.0%) | 7 (87.5%) | 8 (100.0%) |
| *Regional Total (mean %)* | 175 (77.1%) | 171 (75.3%) | 143 (63.3%) | 157 (69.8%) | 177 (77.6%) |
| **Eastern Mediterranean** |  |  |  |  |  |
| Afghanistan | 1 (100.0%) | 0 (0.0%) | 0 (0.0%) | 1 (100.0%) | 1 (100.0%) |
| Bahrain | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 10(0.0%) |
| Egypt | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Iran | 12 (100.0%) | 10 (83.3%) | 7 (58.3%) | 8 (72.7%) | 9 (75.0%) |
| Lebanon | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Morocco | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Pakistan | 1 (50.0%) | 2 (100.0%) | 1 (50.0%) | 2 (100.0%) | 2 (100.0%) |
| Qatar | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Tunisia | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| *Regional Total (mean %)* | 20 (95.2%) | 18 (85.7%) | 14 (66.7%) | 14 (70.0%) | 18 (85.7%) |
| **Europe** |  |  |  |  |  |
| Austria | 4 (80.0%) | 5 (100.0%) | 5 (100.0%) | 4 (100.0%) | 5 (100.0%) |
| Belarus | 1 (100.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 1 (100.0%) |
| Belgium | 3 (50.0%) | 7 (100.0%) | 6 (85.7%) | 7 (100.0%) | 7 (100.0%) |
| Bosnia and Herzegovina | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Bulgaria | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Croatia | 3 (100.0%) | 2 (66.7%) | 3 (100.0%) | 3 (100.0%) | 3 (100.0%) |
| Czech Republic | 5 (100.0%) | 5 (100.0%) | 5 (100.0%) | 2 (40.0%) | 5 (100.0%) |
| Denmark | 5 (100.0%) | 4 (80.0%) | 5 (100.0%) | 4 (80.0%) | 4 (80.0%) |
| England | 41 (87.2%) | 29 (61.7%) | 30 (63.8%) | 29 (63.0%) | 19 (41.3%) |
| Estonia | 2 (100.0%) | 0 (0.0%) | 2 (100.0%) | 1 (50.0%) | 0 (0.0%) |
| Finland | 9 (100.0%) | 9 (100.0%) | 9 (100.0%) | 4 (44.4%) | 5 (55.6%) |
| France | 12 (100.0%) | 12 (100.0%) | 8 (66.7%) | 12 (100.0%) | 12 (100.0%) |
| Georgia | 5 (62.5%) | 4 (50.0%) | 5 (62.5%) | 6 (75.0%) | 8 (100.0%) |
| Germany | 26 (96.3%) | 26 (100.0%) | 26 (96.3%) | 26 (96.3%) | 24 (88.9%) |
| Greece | 4 (100.0%) | 2 (50.0%) | 4 (100.0%) | 2 (50.0%) | 4 (100.0%) |
| Hungary | 19 (100.0%) | 19 (100.0%) | 18 (94.7%) | 19 (100.0%) | 19 (100.0%) |
| Iceland | 2 (50.0%) | 2 (50.0%) | 4 (100.0%) | 3 (75.0%) | 1 (25.0%) |
| Ireland | 5 (100.0%) | 4 (100.0%) | 3 (75.0%) | 4 (80.0%) | 5 (100.0%) |
| Israel | 5 (100.0%) | 5 (100.0%) | 4 (80.0%) | 5 (100.0%) | 5 (100.0%) |
| Italy | 55 (98.2%) | 49 (89.1%) | 54 (96.4%) | 38 (69.1%) | 56 (100.0%) |
| Kazakhstan | 1 (100.0%) | - | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Latvia | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Lithuania | 8 (100.0%) | 4 (50.0%) | 8 (100.0%) | 3 (42.9%) | 7 (87.5%) |
| Macedonia | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Malta | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Netherlands | 15 (93.8%) | 16 (100.0%) | 16 (100.0%) | 13 (81.3%) | 16 (100.0%) |
| Northern Ireland | 10 (100.0%) | 9 (90.0%) | 9 (90.0%) | 7 (70.0%) | 4 (40.0%) |
| Poland | 13 (100.0%) | 13 (100.0%) | 12 (92.3%) | 11 (84.6%) | 13 (100.0%) |
| Portugal | 4 (23.5%) | 17 (100.0%) | 15 (88.2%) | 9 (64.3%) | 17 (100.0%) |
| Republic of Moldova | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Romania | 2 (100.0%) | 1 (50.0%) | 1 (50.0%) | 1 (50.0%) | 2 (100.0%) |
| Russian Federation | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Scotland | 19 (100.0%) | 14 (73.7%) | 17 (94.4%) | 17 (89.5%) | 8 (42.1%) |
| Serbia | 2 (100.0%) | 2 (100.0%) | 1 (50.0%) | 2 (100.0%) | 2 (100.0%) |
| Slovak Republic | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Slovenia | 2 (100.0%) | 1 (50.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) |
| Spain | 43 (97.7%) | 19 (44.2%) | 43 (95.6%) | 28 (65.1%) | 43 (97.7%) |
| Sweden | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Switzerland | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) |
| Turkey | 7 (100.0%) | 5 (83.3%) | 6 (85.7%) | 5 (83.3%) | 7 (87.5%) |
| Wales | 15 (100.0%) | 12 (80.0%) | 14 (93.3%) | 14 (93.3%) | 5 (33.3%) |
| *Regional Total (mean %)* | 367 (94.1%) | 305 (79.2%) | 347 (89.0%) | 177 (46.3%) | 324 (83.1%) |
| **South-East Asia** |  |  |  |  |  |
| Bangladesh | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| India | 8 (53.3%) | 15 (100.0%) | 14 (93.3%) | 4 (26.7%) | 14 (93.3%) |
| Indonesia | 10 (100.0%) | 8 (88.9%) | 5 (62.5%) | 2 (22.2%) | 10 (100.0%) |
| Nepal | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Sri Lanka | 2 (100.0%) | 1 (50.0%) | 2 (100.0%) | 0 (0.0%) | 2 (100.0%) |
| *Regional Total (mean %)* | 22 (75.9%) | 25 (89.3%) | 23 (85.2%) | 7 (25.0%) | 28 (96.6%) |
| **Western Pacific** |  |  |  |  |  |
| Australia | 74 (96.1%) | 71 (92.2%) | 62 (80.5%) | 14 (18.7%) | 22 (29.3%) |
| Brunei Darussalam | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 0 (0.0%) | 1 (50.0%) |
| China | 82 (98.8%) | 65 (78.3%) | 57 (68.7%) | 7 (8.4%) | 82 (98.8%) |
| Japan | 7 (100.0%) | 5 (71.4%) | 7 (100.0%) | 0 (0.0%) | 7 (100.0%) |
| Malaysia | 3 (100.0%) | 3 (100.0%) | 3 (100.0%) | 0 (0.0%) | 3 (100.0%) |
| Mongolia | - | - | - | - | - |
| New Zealand | 21 (84.0%) | 21 (87.5%) | 19 (79.2%) | 2 (8.7%) | 11 (44.0%) |
| Philippines | 10 (100.0%) | 10 (100.0%) | 8 (80.0%) | 3 (30.0%) | 10 (100.0%) |
| Singapore | 6 (100.0%) | 6 (85.7%) | 7 (100.0%) | 3 (50.0%) | 6 (100.0%) |
| South Korea | 12 (100.0%) | 9 (81.8%) | 10 (83.3%) | 0 (0.0%) | 8 (66.7%) |
| Taiwan | 12 (60.0%) | 14 (70.0%) | 20 (100.0%) | 2 (10.0%) | 15 (75.0%) |
| *Regional Total (mean %)* | 229 (93.5%) | 206 (84.4%) | 195 (79.6%) | 31 (13.0%) | 165 (67.9%) |
| **Global Total (mean %)** | 816 (88.1%) | 739 (80.2%) | 733 (79.3%) | 334 (36.8%) | 721 (77.9%) |

-= missing; WHO= World Health Organization

# **Table 4: Individual consultations with health care providers by region**

|  |  |  |  |
| --- | --- | --- | --- |
| **Region** | **Consult with physician n (%)** | **Number of times met with physician in a full program mean (SD)** | **Consult with nurse n (%)** |
| **Africa** | 10 (66.7%) | 2.5 (1.3) | 2 (14.3%) |
| **Americas** | 154 (68.1%) | 3.8 (6.0) | 107 (46.7%) |
| **EM** | 17 (94.4%) | 5.5 (6.9) | 11 (52.4%) |
| **Europe** | 233 (70.2%) | 4.9 (4.8) | 281 (71.0%) |
| **SEA** | 24 (82.8%) | 3.1 (2.3) | 10 (34.5%) |
| **Western Pacific** | 121 (49.2%) | 3.5 (3.4) | 157 (63.1%) |
| **Global Total (mean %)** | 556 (67.0%) | 4.2 (4.9) | 568 (60.6%) |

EM = Eastern Mediterranean; SEA= South East Asia; SD= standard deviation

# **Table 5: Cardiopulmonary resuscitation (CPR) training of personnel supervising exercise by country**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Region** | **Clinical staff have CPR certification** | **Staff required to renew certification regularly** | **Nurses have advanced CPR** | **Nurses have basic CPR** |
| Country |
| **African** |  |  |  |  |
| Algeria | - | - | - | - |
| Kenya | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) |
| Mauritius | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) |
| Nigeria | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| South Africa | 13 (100.0%) | 13 (100.0%) | 3 (37.5%) | 5 (62.5%) |
| *Regional Total (mean %)* | *16 (100.0%)* | *16 (100.0%)* | *5 (45.5%)* | *6 (54.5%)* |
| **Americas** |  |  |  |  |
| Argentina | 2 (66.7%) | 1 (50.0%) | - | - |
| Barbados | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) |
| Bermuda | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) |
| Brazil | 10 (41.7%) | 8 (80.0%) | 2 (66.7%) | 1 (33.3%) |
| Canada | 46 (100.0%) | 44 (95.7%) | 23 (59.0%) | 16 (41.0%) |
| Chile | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Colombia | 44 (91.7%) | 42 (95.5%) | 21 (56.8%) | 16 (43.2%) |
| Costa Rica | 5 (100.0%) | 2 (40.0%) | 2 (66.7%) | 1 (33.3%) |
| Cuba | 4 (57.1%) | 1 (25.0%) | 2 (66.7%) | 1 (33.3%) |
| Curacao | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Dominican Republic | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) |
| Ecuador | 1 (50.0%) | 1 (100.0%) | - | - |
| Guatemala | 2 (100.0%) | 1 (50.0%) | 0 (0.0%) | 2 (100.0%) |
| Honduras | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) | 0 (0.0%) |
| Jamaica | 1 (100.0%) | 0 (0.0%) | - | - |
| Mexico | 8 (88.9%) | 5 (62.5%) | 1 (12.5%) | 7 (87.5%) |
| Panama | 1 (100.0%) | 0 (0.0%) |  |  |
| Paraguay | 2 (66.7%) | 0 (0.0%) | 0 (0.0%) | 1 (100.0%) |
| Peru | 6 (85.7%) | 2 (33.3%) | 1 (33.3%) | 2 (66.7%) |
| United States of America | 57 (100.0%) | 56 (100.0%) | 54 (100.0%) | 0 (0.0%) |
| Uruguay | 5 (100.0%) | 2 (40.0%) | 0 (0.0%) | 4 (100.0%) |
| Venezuela | 6 (75.0%) | 5 (83.3%) | 2 (66.7%) | 1 (33.3%) |
| *Regional Total (mean %)* | *206 (88.0%)* | *175 (85.4%)* | *112 (67.5%)* | *54 (32.5%)* |
| **Eastern Mediterranean** |  |  |  |  |
| Afghanistan | 0 (0.0%) | - |  |  |
| Bahrain | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) |
| Egypt | 0 (0.0%) | - |  |  |
| Iran | 12 (100.0%) | 11 (91.7%) | 8 (66.7%) | 4 (33.3%) |
| Lebanon | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) |
| Morocco | 1 (100.0%) | 0 (0.0%) | 0 (0.0%) | 1 (100.0%) |
| Pakistan | 2 (100.0%) | 1 (50.0%) | 1 (50.0%) | 1 (50.0%) |
| Qatar | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) |
| Tunisia | 0 (0.0%) | - | - | - |
| *Subtotal* | *18 (85.7%)* | *15 (83.3%)* | *12 (66.7%)* | *6 (33.3%)* |
| **Europe** |  |  |  |  |
| Austria | 5 (100.0%) | 5 (100.0%) | 4 (100.0%) | 0 (0.0%) |
| Belarus | 1 (100.0%) | 1 (100.0%) | - | - |
| Belgium | 5 (83.3%) | 5 (100.0%) | 1 (25.0%) | 3 (75.0%) |
| Bosnia and Herzegovina | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) |
| Bulgaria | 1 (100.0%) | 0 (0.0%) | 0 (0.0%) | 1 (100.0%) |
| Croatia | 1 (33.3%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Czech Republic | 5 (100.0%) | 4 (80.0%) | 2 (40.0%) | 3 (60.0%) |
| Denmark | 4 (80.0%) | 4 (100.0%) | 1 (25.0%) | 3 (75.0%) |
| England | 45 (100.0%) | 44 (100.0%) | 32 (82.1%) | 7 (17.9%) |
| Estonia | 1 (50.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Finland | 8 (100.0%) | 6 (75.0%) | 4 (50.0%) | 4 (50.0%) |
| France | 12 (100.0%) | 10 (83.3%) | 3 (27.3%) | 8 (72.7%) |
| Georgia | 4 (50.0%) | 1 (25.0%) | 0 (0.0%) | 1 (100.0%) |
| Germany | 24 (92.3%) | 24 (100.0%) | 19 (79.2%) | 5 (20.8%) |
| Greece | 4 (100.0%) | 2 (50.0%) | 1 (25.0%) | 3 (75.0%) |
| Hungary | 16 (88.9%) | 14 (87.5%) | 5 (31.3%) | 11 (68.8%) |
| Iceland | 4 (100.0%) | 4 (100.0%) | 0 (0.0%) | 2 (100.0%) |
| Ireland | 5 (100.0%) | 5 (100.0%) | 5 (100.0%) | 0 (0.0%) |
| Israel | 5 (100.0%) | 4 (80.0%) | 3 (60.0%) | 2 (40.0%) |
| Italy | 49 (89.1%) | 42 (85.7%) | 8 (16.3%) | 41 (83.7%) |
| Kazakhstan | 1 (100.0%) | 1 (100.0%) | - | - |
| Latvia | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Lithuania | 6 (85.7%) | 5 (83.3%) | 0 (0.0%) | 5 (100.0%) |
| Macedonia | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Malta | 0 (0.0%) | - | - | - |
| Netherlands | 16 (100.0%) | 15 (93.8%) | 6 (37.5%) | 10 (62.5%) |
| Northern Ireland | 10 (100.0%) | 10 (100.0%) | 9 (90.0%) | 1 (10.0%) |
| Poland | 11 (84.6%) | 7 (63.6%) | 4 (36.4%) | 7 (63.6%) |
| Portugal | 11 (64.7%) | 7 (70.0%) | 5 (55.6%) | 4 (44.4%) |
| Republic of Moldova | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Romania | 2 (100.0%) | 2 (100.0%) | 0 (0.0%) | 2 (100.0%) |
| Russian Federation | - | - | - | - |
| Scotland | 19 (100.0%) | 19 (100.0%) | 10 (55.6%) | 8 (44.4%) |
| Serbia | 2 (100.0%) | 1 (50.0%) | 0 (0.0%) | 2 (100.0%) |
| Slovak Republic | 1 (100.0%) | 0 (0.0%) | 0 (0.0%) | 1 (100.0%) |
| Slovenia | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 0 (0.0%) |
| Spain | 35 (83.3%) | 18 (51.4%) | 15 (46.9%) | 17 (53.1%) |
| Sweden | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) |
| Switzerland | 2 (100.0%) | 2 (100.0%) | 0 (0.0%) | 2 (100.0%) |
| Turkey | 7 (87.5%) | 4 (57.1%) | 1 (16.7%) | 5 (83.3%) |
| Wales | 15 (100.0%) | 15 (100.0%) | 10 (66.7%) | 5 (33.3%) |
| *Regional Total (mean %)* | *344 (90.3%)* | *290 (84.8%)* | *152 (47.7%)* | *168 (52.5%)* |
| **South-East Asia** |  |  |  |  |
| Bangladesh | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| India | 13 (86.7%) | 13 (100.0%) | 5 (50.0%) | 5 (50.0%) |
| Indonesia | 8 (88.9%) | 6 (75.0%) | 3 (37.5%) | 5 (62.5%) |
| Nepal | 1 (100.0%) | 0 (0.0%) | 0 (0.0%) | 1 (100.0%) |
| Sri Lanka | 1 (50.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| *Regional Total (mean %)* | *24 (85.7%)* | *21 (87.5%)* | *8 (38.1%)* | *13 (61.9%)* |
| **Western Pacific** |  |  |  |  |
| Australia | 74 (97.4%) | 74 (100.0%) | 36 (50.7%) | 35 (49.3%) |
| Brunei Darussalam | 2 (100.0%) | 2 (100.0%) | 1 (50.0%) | 1 (50.0%) |
| China | 49 (59.0%) | 45 (93.6%) | 23 (46.8%) | 25 (53.2%) |
| Japan | 3 (42.9%) | 3 (100.0%) | 1 (33.3%) | 2 (66.7%) |
| Malaysia | 3 (100.0%) | 3 (100.0%) | 0 (0.0%) | 3 (100.0%) |
| Mongolia | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| New Zealand | 23 (95.8%) | 23 (100.0%) | 11 (57.9%) | 8 (42.1%) |
| Philippines | 10 (100.0%) | 10 (100.0%) | 10 (100.0%) | 0 (0.0%) |
| Singapore | 6 (100.0%) | 6 (100.0%) | 2 (33.3%) | 4 (66.7%) |
| South Korea | 10 (83.3%) | 9 (90.0%) | 1 (11.1%) | 8 (88.9%) |
| Taiwan | 17 (89.5%) | 17 (100.0%) | 3 (18.8%) | 13 (81.3%) |
| *Regional Total (mean %)* | *198 (81.5%)* | *193 (98.0%)* | *88 (38.1%)* | *100 (53.2%)* |
| **Global Total (mean %)** | 806 (87.3%) | 710 (88.5%) | 377 (52.1%) | 347 (47.9%) |

CPR= cardiopulmonary resuscitation; -= missing

# **Table 6: Key core components delivered by region and country**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Region** | **Exercise Training** | **Management of CV Risk Factors** | **Nutrition Counseling** | **Smoking Cessation** | **Stress Management** |
| Country |
| **African** |  |  |  |  |  |
| Algeria | - | - | - | - | - |
| Kenya | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Mauritius | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Nigeria | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| South Africa | 13 (100.0%) | 12 (100.0%) | 9 (69.2%) | 6 (50.0%) | 7 (58.3%) |
| *Regional total (mean %)* | 16 (100.0%) | 15 (100.0%) | 12 (75.0%) | 8 (53.3%) | 10 (66.7%) |
| **Americas** |  |  |  |  |  |
| Argentina | 3 (100.0%) | 2 (66.7%) | 2 (66.7%) | 0 (0.0%) | 1 (33.3%) |
| Barbados | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 0 (0.0%) |
| Bermuda | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Brazil | 24 (100.0%) | 20 (83.3%) | 12 (50.0%) | 6 (25.0%) | 9 (37.5%) |
| Canada | 47 (97.9%) | 47 (97.9%) | 48 (100.0%) | 33 (68.8%) | 45 (93.8%) |
| Chile | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) |
| Colombia | 43 (91.5%) | 47 (100.0%) | 40 (85.1%) | 21 (44.7%) | 33 (70.2%) |
| Costa Rica | 5 (83.3%) | 6 (100.0%) | 6 (100.0%) | 4 (66.7%) | 3 (50.0%) |
| Cuba | 8 (100.0%) | 8 (100.0%) | 8 (100.0%) | 4 (50.0%) | 8 (100.0%) |
| Curacao | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Dominican Republic | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Ecuador | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 1 (50.0%) | 2 (100.0%) |
| Guatemala | 2 (100.0%) | 2 (100.0%) | 1 (50.0%) | 1 (50.0%) | 1 (50.0%) |
| Honduras | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | - |
| Jamaica | 1 (100.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) |
| Mexico | 9 (100.0%) | 9 (100.0%) | 9 (100.0%) | 6 (66.7%) | 7 (77.8%) |
| Panama | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 0 (0.0%) |
| Paraguay | 3 (100.0%) | 3 (100.0%) | 3 (100.0%) | 1 (33.3%) | 3 (100.0%) |
| Peru | 7 (100.0%) | 7 (100.0%) | 6 (85.7%) | 1 (14.3%) | 5 (71.4%) |
| United States of America | 56 (98.2%) | 53 (96.4%) | 54 (94.7%) | 50 (87.7%) | 55 (98.2%) |
| Uruguay | 5 (100.0%) | 5 (100.0%) | 5 (100.0%) | 2 (40.0%) | 3 (60.0%) |
| Venezuela | 8 (100.0%) | 8 (100.0%) | 8 (100.0%) | 5 (71.4%) | 6 (75.0%) |
| *Regional total (mean %)* | 230 (97.0%) | 226 (96.2%) | 211 (89.0%) | 138 (58.5%) | 184 (78.3%) |
| **Eastern Mediterranean** |  |  |  |  |  |
| Afghanistan | 0 (0.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Bahrain | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Egypt | 0 (0.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Iran | 12 (100.0%) | 12 (100.0%) | 12 (100.0%) | 7 (63.6%) | 10 (83.3%) |
| Lebanon | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Morocco | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) | 1 (100.0%) |
| Pakistan | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) |
| Qatar | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) |
| Tunisia | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| *Subtotal* | 19 (90.5%) | 21 (100.0%) | 20 (95.2%) | 15 (75.0%) | 17 (81.0%) |
| **Europe** |  |  |  |  |  |
| Austria | 5 (100.0%) | 5 (100.0%) | 5 (100.0%) | 5 (100.0%) | 5 (100.0%) |
| Belarus | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0% |
| Belgium | 7 (100.0%) | 6 (100.0%) | 7 (100.0%) | 7 (100.0%) | 7 (100.0%) |
| Bosnia and Herzegovina | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0% |
| Bulgaria | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Croatia | 3 (100.0%) | 3 (100.0%) | 3 (100.0%) | 3 (100.0%) | 3 (100.0%) |
| Czech Republic | 5 (100.0%) | 4 (80.0%) | 5 (100.0%) | 4 (80.0%) | 3 (60.0%) |
| Denmark | 5 (100.0%) | 5 (100.0%) | 5 (100.0%) | 4 (80.0%) | 2 (40.0%) |
| England | 48 (100.0%) | 45 (95.7%) | 39 (83.0%) | 30 (63.8%) | 38 (80.9%) |
| Estonia | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) |
| Finland | 9 (100.0%) | 8 (88.9%) | 9 (100.0%) | 8 (88.9%) | 9 (100.0%) |
| France | 11 (91.7%) | 11 (91.7%) | 11 (91.7%) | 11 (91.7%) | 11 (91.7%) |
| Georgia | 7 (100.0%) | 7 (100.0%) | 5 (71.4%) | 2 (28.6%) | 4 (57.1%) |
| Germany | 27 (96.4%) | 28 (100.0%) | 28 (100.0%) | 28 (100.0%) | 27 (100.0%) |
| Greece | 4 (100.0%) | 3 (75.0%) | 3 (75.0%) | 2 (50.0%) | 3 (75.0%) |
| Hungary | 17 (89.5%) | 19 (100.0%) | 19 (100.0%) | 17 (89.5%) | 18 (94.7%) |
| Iceland | 4 (100.0%) | 4 (100.0%) | 3 (75.0%) | 2 (50.0%) | 4 (100.0%) |
| Ireland | 5 (100.0%) | 5 (100.0%) | 5 (100.0%) | 5 (100.0%) | 5 (100.0%) |
| Israel | 5 (100.0%) | 5 (100.0%) | 5 (100.0%) | 2 (40.0%) | 2 (40.0%) |
| Italy | 57 (100.0%) | 57 (100.0%) | 52 (91.2%) | 45 (78.9%) | 44 (77.2%) |
| Kazakhstan | 0 (0.0%) | 1 (100.0%) | 1 (100.0%) | - | - |
| Latvia | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) |
| Lithuania | 8 (100.0%) | 8 (100.0%) | 6 (75.0%) | 4 (50.0%) | 8 (100.0%) |
| Macedonia | 0 (0.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) |
| Malta | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 0 (0.0%) |
| Netherlands | 20 (100.0%) | 20 (100.0%) | 19 (100.0%) | 15 (78.9%) | 18 (94.7%) |
| Northern Ireland | 10 (100.0%) | 10 (100.0%) | 10 (100.0%) | 10 (100.0%) | 10 (100.0%) |
| Poland | 13 (92.9%) | 14 (100.0%) | 13 (92.9%) | 11 (78.6%) | 14 (100.0%) |
| Portugal | 17 (100.0%) | 17 (100.0%) | 17 (100.0%) | 14 (82.4%) | 12 (70.6%) |
| Republic of Moldova | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) |
| Romania | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 1 (50.0%) | 1 (50.0%) |
| Russian Federation | 1 (100.0%) | 0 (0.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0% |
| Scotland | 17 (89.5%) | 19 (100.0%) | 17 (94.4%) | 16 (84.2%) | 19 (100.0%) |
| Serbia | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) |
| Slovak Republic | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Slovenia | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) |
| Spain | 45 (97.8%) | 46 (100.0%) | 46 (100.0%) | 41 (89.1%) | 43 (93.5%) |
| Sweden | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 0 (0.0%) | 0 (0.0%) |
| Switzerland | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) |
| Turkey | 8 (100.0%) | 8 (100.0%) | 8 (100.0%) | 5 (62.5%) | 4 (50.0%) |
| Wales | 14 (93.3%) | 15 (100.0%) | 15 (100.0%) | 11 (73.3%) | 13 (86.7%) |
| *Regional total (mean %)* | 390 (97.3%) | 393 (98.5%) | 376 (94.5%) | 318 (79.9%) | 341 (85.9%) |
| **South-East Asia** |  |  |  |  |  |
| Bangladesh | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0% |
| India | 15 (100.0%) | 15 (100.0%) | 15 (100.0%) | 11 (73.3%) | 15 (100.0%) |
| Indonesia | 10 (100.0%) | 10 (100.0%) | 10 (100.0%) | 10 (100.0%) | 3 (30.0%) |
| Nepal | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) | 1 (100.0%) |
| Sri Lanka | 1 (50.0%) | 2 (100.0%) | 1 (50.0%) | 2 (100.0%) | 2 (100.0%) |
| *Regional total (mean %)* | 28 (96.6%) | 29 (100.0%) | 28 (96.6%) | 25 (86.2%) | 22 (75.9%) |
| **Western Pacific** |  |  |  |  |  |
| Australia | 73 (91.3%) | 77 (98.7%) | 77 (96.3%) | 51 (64.6%) | 73 (91.3%) |
| Brunei Darussalam | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) | 2 (100.0%) |
| China | 64 (77.1%) | 82 (98.8%) | 76 (91.6%) | 70 (84.3%) | 64 (78.0%) |
| Japan | 5 (83.3%) | 6 (100.0%) | 6 (100.0%) | 5 (83.3%) | 4 (66.7%) |
| Malaysia | 3 (100.0%) | 3 (100.0%) | 3 (100.0%) | 3 (100.0%) | 3 (100.0%) |
| Mongolia | - | - | - | - | - |
| New Zealand | 21 (87.5%) | 24 (100.0%) | 24 (100.0%) | 17 (73.9%) | 21 (87.5%) |
| Philippines | 10 (100.0%) | 10 (100.0%) | 10 (100.0%) | 6 (60.0%) | 6 (60.0%) |
| Singapore | 7 (100.0%) | 7 (100.0%) | 7(100.0%) | 5 (71.4%) | 4 (57.1%) |
| South Korea | 11 (91.7%) | 12 (100.0%) | 11 (91.7%) | 10 (83.3%) | 7 (58.3%) |
| Taiwan | 19 (90.5%) | 21 (100.0%) | 17 (81.0%) | 19 (90.5%) | 13 (61.9%) |
| *Regional total (mean %)* | 215 (86.7%) | 244 (99.2%) | 233 (94.0%) | 188 (76.4%) | 197 (79.8%) |
| **Global Total (mean %)** | 898 (94.3%) | 928 (98.2%) | 880 (92.7%) | 692 (73.3%) | 771 (81.7%) |

CV= cardiovascular; -= missing

**Table 7: Cardiac rehabilitation components and other elements delivered, by region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| n (%) | African  (n=18) | Americas  (n=261) | EMR  (n=24) | European  (n=484) | SEAR  (n=32) | Western  Pacific  (n=263) | Total  (N=1082) | p○ |
| Initial Assessment‖ | 16 (100.0%) | 236 (99.6%) | 21 (100.0%) | 394 (99.0%) | 29  (100.0%) | 243 (97.6%) | 939 (98.8%) | 0.99 |
| Management of CV Risk Factors‖ | 15 (100.0%) | 226 (96.2%) | 21 (100.0%) | 393 (98.5%) | 29  (100.0 %) | 244 (99.2%) | 928 (98.2%) | 0.92 |
| Patient Education‖ | 15 (100.0%) | 223 (97.8%) | 21 (100.0%) | 374 (97.1%) | 26 (96.3%) | 236 (95.2%) | 895 (96.9%) | 1.0 |
| Exercise Training‖ | 16 (100.0%)  \*  ††  ǂǂǂ | 230 (97.0%)  \*  ‡ | 19  (90.5%) | 390 (97.3%)  ††  ◊ | 28 (96.6%) | 215 (86.7%)  ǂǂǂ  ◊  ‡ | 898 (94.3%) | <0.05 |
| Heart rate measurement training / exercise intensity monitoring | 15  (93.8%) | 235 (99.6%) | 20  (95.2%) | 379 (95.7%) | 29  (100.0%) | 210 (85.4%) | 888 (94.1%) | 0.34 |
| Risk Assessment‖ | 15  (93.8%) | 220 (96.1%) | 18 (100.0%) | 318 (94.4%) | 23 (92.0%) | 194 (89.0%) | 788 (93.5%) | 0.78 |
| Assessment of Comorbidities | 15 (100.0%) | 218 (92.8%) | 19  (90.5%) | 378 (95.7%) | 25 (92.6%) | 222 (89.2%) | 877 (93.1%) | 0.60 |
| Nutrition Counseling‖ | 12  (75.0%) | 211 (89.0%) | 20  (95.2%) | 376 (94.5%) | 28 (96.6%) | 233 (94.0%) | 880 (92.7%) | 0.58 |
| End of program re-assessment‖ | 16 (100.0%) | 217 (93.1%) | 19  (90.5%) | 364 (91.9%) | 23 (82.1%) | 219 (89.4%) | 858 (91.4%) | 0.82 |
| Resistance Training | 15  (93.8%) | 220 (94.0%) | 15  (71.4%) | 363 (91.2%) | 28 (96.6%) | 217 (87.9%) | 858 (90.8%) | 0.23 |
| Depression screening | 11  (73.3%) | 193 (81.8%) | 19  (90.5%) | 367 (92.2%) | 20 (69.0%) | 206 (83.4%) | 816 (86.3%) | 0.11 |
| Communication of assessment results to patients’ primary care provider‖ | 16 (100.0%) | 191 (80.9%) | 15  (71.4% | 333 (85.4%) | 22 (78.6%) | 211 (85.4%) | 788 (84.0%) | 0.69 |
| Stress Management‖ | 10  (66.7%) | 184 (78.3%) | 17  (81.0%) | 341 (85.9%) | 22 (75.9%) | 197 (79.8%) | 771 (81.7%) | 0.52 |
| Psychological Counselling | 9  (60.0%) | 166 (70.6%) | 18 (85.7%) | 343 (86.2%) | 22 (75.9%) | 194 (78.2%) | 752 (79.5%) | 0.12 |
| Prescription and/or titration of medications | 12  (75.0%) | 167 (70.8%) | 20  (95.2%) | 352 (88.4%) | 27 (93.1%) | 173 (70.0%) | 751 (79.3%) | 0.10 |
| Other Functional Capacity Test | 14  (93.3%) | 182 (78.4%) | 14  (70.0%) | 330 (84.6%) | 25 (89.3%) | 169 (69.0%) | 734 (78.9%) | 0.26 |
| Smoking cessation sessions/classes‖ | 8  (53.3%) | 138 (58.5%)  \*\*\*  †  ‡‡‡  ǂǂǂ | 15  (75.0%)  † | 318 (79.9%)  \*\*\* | 25 (86.2%)  ǂǂǂ | 188 (76.4%)  ‡‡‡ | 692 (73.3%) | 0.001 |
| Follow-up post-program | 14  (87.5%) | 156 (66.4%) | 14  (70.0%) | 256 (65.0%) | 23 (79.3%) | 199 (80.9%) | 662 (70.4%) | 0.07 |
| Exercise Stress Test | 13  (81.3%) | 144 (62.3%) | 18  (90.0%) | 310 (78.5%) | 25  (86.2%) | 146 (59.3%) | 656 (70.0%) | 0.71 |
| Vocational counselling / return-to-work‖ | 7  (46.7%) | 107 (46.1%)  \*\*\*  ǂǂ | 15  (71.4%) | 296 (75.1%)  \*\*\* | 18 (64.3%) | 171 (70.1%)  ǂǂ | 614 (65.7%) | 0.001 |
| Electronic patient charting | 11  (78.6%) | 144 (68.2%) | 12  (57.1%) | 166 (63.4%) | 11 (40.7%) | 128 (54.0%) | 472 (61.1%) | 0.48 |
| Assessment of strength | 12  (80.0%) | 88 (38.3%) | 11  (52.4%) | 183 (46.7%) | 15 (51.7%) | 138 (57.3%) | 447 (48.2%) | 0.21 |
| Alternative forms of exercise (e.g., yoga, dance) | 6  (40.0%) | 81 (34.8%) | 6  (30.0%) | 136 (34.7%) | 16  (57.1%) | 110 (44.9%) | 355 (38.0%) | 0.65 |
| Women-only classes | 3  (20.0%) | 19  (8.2%)  \*\* | 11  (52.4%)  \*\*  ǂ  ††  ‡ | 45  (11.6%)  ǂ | 3  (10.7%)  ‡ | 29  (11.8%)  †† | 110  (11.8%) | <0.01 |
| Other | 2  (66.7) | 26 (27.4%) | 1  (14.3%) | 30 (18.2%) | 6 (40.0%) | 48 (36.9%) | 113 (27.2%) | 0.09 |
| Total Elements (mean ± SD) | 19.6±3.0 | 19.1±3.7 | 20.0±3.4 | 20.2±3.7 | 19.3±3.9 | 18.5±5.0 | 19.5±4.1 | 0.38 |
| Total Core (/11)‖ | 8.4±1.4 | 8.6±1.7 | 8.9±1.7 | 9.0±1.8 | 8.6±1.7 | 8.4±2.1 | 8.7±1.9 | 0.77 |

‖quality indicator / core component.

○test for significant differences by region, using generalized linear mixed models which accounted for clustering of programs within countries.

EMR=Eastern Mediterranean Region; SEAR=South-East Asia Region; SD=standard deviation.

For pairwise comparisons \*ǂ‡†◊: one symbol=p<.05; two symbols=p<.01; 3 symbols=p<.001.

# **Table 8: Cardiovascular risk factors assessed, by region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| n (%) | Africa  (n=18) | Americas  (n=261) | EMR  (n=24) | European  (n=484) | SEAR  (n=32) | Western  Pacific  (n=263) | Total  (N=1082) | p○ |
| Blood pressure‖ | 16 (100.0%) | 234 (99.6%) | 21 (100.0%) | 385 (98.7%) | 29 (100.0%) | 243 (99.2%) | 928 (99.1%) | 1.00 |
| Tobacco use‖ | 16 (100.0%) | 231 (98.3%) | 21 (100.0%) | 382 (97.4%) | 28  (96.6%) | 241 (98.4%) | 919 (98.0%) | 1.00 |
| Physical inactivity‖ | 16 (100.0%) | 220 (94.0%) | 20  (95.2%) | 371 (95.6%) | 24  (82.8%) | 228 (93.4%) | 879 (94.3%) | 0.28 |
| Body mass Index‖ | 16 (100.0%) | 223 (95.3%) | 21 (100.0%) | 374 (95.7%) | 29 (100.0%) | 218 (89.3%) | 883 (94.24%) | 0.54 |
| Harmful use of alcohol | 14  (87.5%) | 217 (92.3%) | 18 (85.7%) | 372 (94.7%) | 24 (85.7%) | 222 (91.0%) | 867 (92.5%) | 0.30 |
| Lipids‖ | 12  (75.0%) | 218 (92.8%) | 21 (100.0%) | 365 (93.1%) | 28  (96.6%) | 212 (86.5%) | 853 (91.03%) | 0.46 |
| Poor diet‖ | 14 (87.5%) | 217 (92.7%) | 20 (95.2%) | 358 (91.8%) | 21 (75.0%) | 210 (86.4%) | 840 (90.1%) | 0.23 |
| Blood Glucose/ HbA1c‖ | 14  (87.5%) | 212 (90.2%) | 21  (100.0%) | 347 (89.0%) | 28  (96.6%) | 205 (83.7%) | 827 (88.4%) | 0.97 |
| Depression / Anxiety‖ | 13 (81.3%) | 192 (83.1%) | 18 (85.7%) | 352 (90.5%) | 19 (65.5%) | 203 (83.5%) | 797 (85.8%) | 0.60 |
| Waist circumference‖ | 13 (81.3%) | 178 (76.7%) | 12 (60.0%) | 296 (75.9%) | 24 (82.8%) | 190 (78.2%) | 713 (76.7%) | 0.60 |
| Sedentary time | 14 (87.5%) | 170 (73.0%) | 18 (85.7%) | 302 (78.0%) | 21  (75.0%) | 183 (75.6%) | 708 (76.4%) | 0.68 |
| Sleep apnea | 6  (37.5%) | 112 (48.9%) | 7  (35.0%) | 181 (47.1%) | 8  (27.6%) | 123 (50.6%) | 437 (47.4%) | 0.91 |
| Body composition‖ | 11 (68.8%) | 107 (46.7%) | 9  (45.0%) | 131 (34.8%) | 17 (58.6%) | 86  (36.0%) | 361 (39.7%) | 0.32 |
| Hip Circumference‖ | 12  (75.0%) | 90 (39.1%) | 9  (45.0%) | 118 (31.0%) | 20  (69.0%) | 102 (42.7%) | 351 (38.4%) | 0.17 |
| Other | 6  (66.7%) | 59 (44.4%) | 4  (36.4%) | 72 (33.3%) | 11  (57.9%) | 61  (39.6%) | 213 (39.3%) | 0.14 |
| Total (mean ± SD) | 12.6±2.8 | 12.0±2.3 | 12.2±2.0 | 12.1±2.3 | 12.2±2.6 | 11.8±2.8 | 12.0±2.5 | 0.82 |

‖quality indicator.

○test for significant differences by region, using generalized linear mixed models which accounted for clustering of programs within countries.

CR=Cardiac Rehabilitation; EMR=Eastern Mediterranean Region; SEAR=South-East Asia Region; SD=standard deviation.

# **Table 9: Cardiac Rehabilitation Quality by Country with Programs, N=93**

|  |  |  |  |
| --- | --- | --- | --- |
| **WHO Region**  Country | **n** | **# Quality/ 20†** | **Quality Rank\*** |
| **African** |  |  |  |
| Algeria | 1 | 1/1 (100.0%) | 1 |
| Kenya | 1 | 20 (100.0%) | 1 |
| Mauritius | 1 | 17 (85.0%) | 5 |
| Nigeria | 1 | 20 (100.0%) | 1 |
| South Africa | 14 | 15 (75.0%) | 9 |
| *Regional Average (Mean ± SD)* | 18 | 14.8 ± 5.9 | n/a |
| **Americas** |  |  |  |
| Argentina | 3 | 12 (60.0%) | 14 |
| Barbados | 1 | 16 (80.0%) | 7 |
| Bermuda | 1 | 20 (100.0%) | 1 |
| Brazil | 30 | 12 (60.0%) | 14 |
| Canada | 57 | 17 (85.0%) | 5 |
| Chile | 1 | 18 (90.0%) | 3 |
| Colombia | 48 | 15 (75.0%) | 9 |
| Costa Rica | 6 | 14 (70.0%) | 10 |
| Cuba | 8 | 18 (90.0%) | 3 |
| Curacao | 1 | 17 (85.0%) | 5 |
| Dominican Republic | 1 | 18 (90.0%) | 3 |
| Ecuador | 2 | 18 (90.0%) | 3 |
| Guatemala | 2 | 12 (60.0%) | 14 |
| Honduras | 1 | 18/18 (100.0%) | 1 |
| Jamaica | 1 | 12/19 (63.2%) | 13 |
| Mexico | 9 | 17 (85.0%) | 5 |
| Panama | 1 | 16 (80.0%) | 7 |
| Paraguay | 3 | 16 (80.0%) | 7 |
| Peru | 7 | 15 (75.0%) | 9 |
| United States of America | 65 | 19 (95.0%) | 2 |
| Uruguay | 5 | 17 (85.0%) | 5 |
| Venezuela | 8 | 18 (90.0%) | 3 |
| *Regional Average (Mean ± SD)* | 261 | 15.8 ± 5.5 | n/a |
| **Eastern Mediterranean** |  |  |  |
| Afghanistan | 1 | 19/19 (100.0%) | 1 |
| Bahrain | 1 | 19 (95.0%) | 2 |
| Egypt | 2 | 15/19 (78.9%) | 8 |
| Iran | 14 | 18 (90.0%) | 3 |
| Lebanon | 1 | 20 (100.0%) | 1 |
| Morocco | 1 | 15/17 (88.2%) | 4 |
| Pakistan | 2 | 17 (85.0%) | 5 |
| Qatar | 1 | 17 (85.0%) | 5 |
| Tunisia | 1 | 16 (80.0%) | 7 |
| *Regional Average (Mean ± SD)* | 24 | 15.8 ± 6.2 | n/a |
| **Europe** |  |  |  |
| Austria | 5 | 19 (95.0%) | 2 |
| Belarus | 1 | 19 (95.0%) | 2 |
| Belgium | 9 | 19 (95.0%) | 2 |
| Bosnia and Herzegovina | 1 | 19 (95.0%) | 2 |
| Bulgaria | 1 | 19 (95.0%) | 2 |
| Croatia | 3 | 19 (95.0%) | 2 |
| Czech Republic | 6 | 14 (70.0%) | 10 |
| Denmark | 8 | 18 (90.0%) | 3 |
| England | 57 | 16 (80.0%) | 7 |
| Estonia | 2 | 17 (85.0%) | 5 |
| Finland | 11 | 14 (70.0%) | 10 |
| France | 16 | 20 (100.0%) | 1 |
| Georgia | 13 | 14 (70.0%) | 10 |
| Germany | 34 | 20 (100.0%) | 1 |
| Greece | 4 | 19 (95.0%) | 2 |
| Hungary | 20 | 19 (95.0%) | 1 |
| Iceland | 4 | 13 (65.0%) | 11 |
| Ireland | 7 | 18 (90.0%) | 3 |
| Israel | 6 | 15 (75.0%) | 9 |
| Italy | 70 | 20 (100.0%) | 1 |
| Kazakhstan | 1 | 6/6 (100.0%) | 1 |
| Latvia | 1 | 15/19 (78.9%) | 8 |
| Lithuania | 9 | 18 (90.0%) | 3 |
| Macedonia | 1 | 11/17 (64.7%) | 12 |
| Malta | 1 | 13 (65.0%) | 11 |
| Netherlands | 29 | 20 (100.0%) | 1 |
| Northern Ireland | 10 | 20 (100.0%) | 1 |
| Poland | 21 | 19 (95.0%) | 2 |
| Portugal | 21 | 17 (85.0%) | 5 |
| Republic of Moldova | 1 | 11/17 (64.7%) | 12 |
| Romania | 2 | 16 (80.0%) | 7 |
| Russian Federation | 3 | 18 (90.0%) | 3 |
| Scotland | 24 | 20 (100.0%) | 1 |
| Serbia | 2 | 18 (90.0%) | 3 |
| Slovak Republic | 1 | 18 (90.0%) | 3 |
| Slovenia | 2 | 16 (80.0%) | 7 |
| Spain | 47 | 18 (90.0%) | 3 |
| Sweden | 1 | 15 (75.0%) | 9 |
| Switzerland | 4 | 20 (100.0%) | 1 |
| Turkey | 9 | 13 (65.0%) | 11 |
| Wales | 16 | 18 (90.0%) | 3 |
| *Regional Average (Mean ± SD)* | 484 | 14.8 ± 7.0 | n/a |
| **South-East Asia** |  |  |  |
| Bangladesh | 1 | 20 (100.0%) | 1 |
| India | 18 | 18 (90.0%) | 3 |
| Indonesia | 10 | 14 (70.0%) | 10 |
| Nepal | 1 | 15/17 (88.2%) | 4 |
| Sri Lanka | 2 | 13 (65.0%) | 11 |
| *Regional Average (Mean ± SD)* | 32 | 15.7 ± 5.4 | n/a |
| **Western Pacific** |  |  |  |
| Australia | 85 | 15 (75.0%) | 9 |
| Brunei Darussalam | 2 | 16/19 (84.2%) | 6 |
| China | 83 | 20 (100.0%) | 1 |
| Japan | 9 | 19 (95.0%) | 2 |
| Malaysia | 4 | 19 (95.0%) | 2 |
| Mongolia | 1 | 1/1 (100.0%) | 1 |
| New Zealand | 27 | 15 (75.0%) | 9 |
| Philippines | 10 | 18 (90.0%) | 3 |
| Singapore | 7 | 13 (65.0%) | 11 |
| South Korea | 12 | 18 (90.0%) | 3 |
| Taiwan | 23 | 18 (90.0%) | 3 |
| *Regional Average (Mean ± SD)* | 263 | 16.5 ± 4.8 | n/a |
| *World Average (Mean ± SD)* | 1089 | 15.5 ± 6.1 | n/a |

-= missing; n/a not applicable. SD, standard deviation; WHO= World Health Organization

†20 core components / quality indicators from CR societies2–5 were assessed. This included delivery of the following core components: initial assessment, risk assessment/stratification, exercise training, patient education, management of CV risk factors, nutrition counselling, stress management, smoking cessation, vocational counselling/return-to-work, end-of-program re-assessment and communication with primary care (total=11). Assessment of the following risk factors was also assessed: blood pressure, lipids, physical inactivity, diet, adiposity (i.e., body mass index, waist circumference, or body composition), tobacco use, glucose / HbA1c,and depression (total=8). Wait times to start programming were also assessed (benchmark <30 days or 4 weeks). Number represents number of indicators where ≥75% of programs in a given country complied of 20 (<4 weeks for wait time).

In countries with few respondents, where some necessary data are missing, the denominator has been revised to reflect the total number of indicators that could be assessed.

\*based on %. Although there are 93 countries with CR, there were many ties in quality, such that rank ranged from 1 to 14. Countries ranked 1 had the best quality, and 14 was the poorest quality.