## Online appendix 2. Descriptive results for indicators' related items

| Supplementary Table 1 - Indicator A: Data Management and Data <br> Recording | No n(\%) | Yes n(\%) |
| :--- | :---: | :---: |
| Pharmacy equipped with a computerized system | $2(1.0 \%)$ | $242(99.0 \%)$ |
| Computer system for stock management | $15(6.0 \%)$ | $226(92.2 \%)$ |
| Computer system for First In First Out system | $41(16.6 \%)$ | $200(81.6 \%)$ |
| Computer system for Patient medication profile | $157(64.3 \%)$ | $83(33.8 \%)$ |
| Computer system for Medication labeling | $125(51.1 \%)$ | $115(47.0 \%)$ |
| Computer system for Patient personal information | $181(74.0 \%)$ | $59(24.1 \%)$ |
| Computer system for Recording prescriptions of Opioids | $204(83.1 \%)$ | $37(15.0 \%)$ |
| Computer system for Recording prescriptions of benzodiazepines | $199(81.4 \%)$ | $39(15.9 \%)$ |
| Computer system for date recording | $23(9.3 \%)$ | $212(86.8 \%)$ |
| Computer allows patients' name recording | $56(22.8 \%)$ | $180(73.3 \%)$ |
| Computer allows prescriber name recording | $181(73.8 \%)$ | $53(21.7 \%)$ |
| Computer allows prescribed drugs recording | $46(18.7 \%)$ | $188(76.9 \%)$ |
| Log books appropriately used | $177(72.5 \%)$ | $67(27.5 \%)$ |
| Log books used for stock management | $226(92.2 \%)$ | $19(7.8 \%)$ |
| Log books used for First In First Out system | $229(93.6 \%)$ | $16(6.4 \%)$ |
| Log books used for patient's medication profile | $238(97.3 \%)$ | $7(2.7 \%)$ |
| Log books used for labeling | $239(97.7 \%)$ | $6(2.3 \%)$ |
| Log books used for patient personal information | $234(95.7 \%)$ | $104.3 \%)$ |
| Log books used for recording prescriptions of opioids | $209(85.5 \%)$ | $35(14.5 \%)$ |
| Log books used for recording prescriptions of benzodiazepines | $185(75.7 \%)$ | $59(24.3 \%)$ |
| Log books used for recording prescription date | $180(73.6 \%)$ | $65(26.4 \%)$ |
| Log books used for recording patient name | $184(75.0 \%)$ | $61(25.0 \%)$ |
| Log books used for recording prescriber name | $187(76.2 \%)$ | $58(23.8 \%)$ |
| Log books used for recording prescribed drug | $184(75.3 \%)$ | $60(24.7 \%)$ |
| Pharmacists keeps a copy for non-psychotropic drugs' prescription | $58(23.7 \%)$ | $187(76.3 \%)$ |


| Supplementary Table 2 - Indicator B: Services and Facilities | No n (\%) | Yes n (\%) |
| :---: | :---: | :---: |
| Licensed pharmacist available in the pharmacy | 42(17.2\%) | 203(82.8\%) |
| Suitable place to discuss confidential information | 18(7.2\%) | 227(92.8\%) |
| Pharmacist engaged in awareness campaigns against smoking | 182(74.3\%) | 63(25.7\%) |
| Pharmacist engaged in awareness campaigns about healthy diet | 171(69.8\%) | 74(30.2\%) |
| Pharmacist engaged in awareness campaigns against obesity | 183(74.8\%) | 62(25.2\%) |
| Pharmacist engaged in awareness campaigns against cancer | 202(82.7\%) | 42(17.3\%) |
| Pharmacist engaged in awareness campaigns about birth control | 219(89.3\%) | 26(10.7\%) |
| Pharmacist engaged in awareness campaigns about HIV/AIDS | 224(91.7\%) | 20(8.3\%) |
| Pharmacist engaged in awareness campaigns against diabetes | 150(61.3\%) | 95(38.7\%) |
| Pharmacist engaged in awareness campaigns about lifestyle | 198(80.9\%) | 47(19.1\%) |
| Pharmacist engaged in campaigns for antibiotic resistance | 173(70.7\%) | 72(29.3\%) |
| Pharmacist engaged in awareness campaigns against drug abuse | 215(87.8\%) | 30(12.2\%) |
| Pharmacist engaged in awareness campaigns against STDs | 214(87.5\%) | 31(12.5\%) |
| Pharmacist engaged in awareness campaigns against tuberculosis | 234(95.7\%) | 11(4.3\%) |
| Pharmacist engaged in awareness campaigns against other topics | 239(97.7\%) | 6(2.3\%) |
| Information sources available for patients' use | 122(49.7\%) | 123(50.3\%) |
| Information source can be patient's leaflet | 134(54.6\%) | 111(45.4\%) |
| Information source can be medicine handbook | 207(84.4\%) | 38(15.6\%) |
| Information source can be a newsletter | 218(88.9\%) | 27(11.1\%) |
| Information source can be a computer print out | 219(89.2\%) | 26(10.8\%) |
| Information source can be a computer access | 235(96.0\%) | 10(4.0\%) |
| Information source can be another source | 240(98.1\%) | 5(1.9\%) |
| Available service can be vaccination | 51(20.6\%) | 194(79.4\%) |
| Available service can be cholesterol testing | 203(82.8\%) | 42(17.2\%) |
| Available service can be blood pressure checking | 13(5.1\%) | 232(94.9\%) |
| Available service can be pregnancy testing | 86(35.0\%) | 159(65.0\%) |
| Available service can be glycemia testing | 20(8.0\%) | 225(92.0\%) |
| Available service can be prescription glasses | 152(62.2\%) | 93(37.8\%) |


| Supplementary Table 3 - Indicator C: Dispensing, Preparation, Administration and Distribution of Medicines | No n(\%) | Yes n (\%) |
| :---: | :---: | :---: |
| More than one prescription per day | 0 | 245(100\%) |
| Ever encountered a prescription with one or more mistakes | 5(2.0\%) | 240(98.0\%) |
| Ever had to call back patients after they leave the pharmacy | 144(59.0\%) | 100(41.0\%) |
| Dispenses drugs without prescription other than OTC | 30(12.2\%) | 215(87.8\%) |
| Dispenses NSAIDS without prescription | 13(5.3\%) | 232(94.7\%) |
| Dispenses antibiotics without prescription | 97(39.5\%) | 148(60.5\%) |
| Dispenses steroids without prescription | 179(73.1\%) | 86(26.9\%) |
| Dispenses antihypertensive medication without prescription | 167(68.2\%) | 78(31.8\%) |
| Dispenses cardiovascular medications without prescription | 170(69.5\%) | 75(30.5\%) |
| Dispenses benzodiazepines without prescription | 210(86.0\%) | 34(14.0\%) |
| Dispenses gastrointestinal drugs without prescription | 82(33.4\%) | 163(66.6\%) |
| Dispenses antipsychotics without prescription | 197(80.6\%) | 47(19.4\%) |
| Dispenses drugs for neurological disease without prescription | 204(83.1\%) | 41(16.9\%) |
| Dispenses drugs for asthma and COPD without prescription | 153(62.6\%) | 92(37.4\%) |
| Dispenses drugs for smoking cessation without prescription | 134(54.6\%) | 111(45.4\%) |
| Dispenses hormones/contraceptives without prescription | 127(51.7\%) | 118(48.3\%) |
| Dispenses vitamins without prescription | 32(13.2\%) | 213(86.8\%) |
| Dispenses cosmetics without prescription | 35(14.5\%) | 209(85.5\%) |
| Dispenses local anesthetics without prescription | 114(46.7\%) | 130(53.3\%) |
| Practice generic substitution | 29(12.0\%) | 216(88.0\%) |
| Explains to patients the purpose of substitution | 31(12.5\%) | 214(87.5\%) |
| Provides enough information to support adherence | 7(2.9\%) | 238(97.1\%) |
| Provides enough information to reduce antibiotic resistance | 4(1.6\%) | 241(98.4\%) |
| Prepares extemporaneous medication preparations | 151(61.5\%) | 94(38.5\%) |
| Has an area for extemporaneous medications preparation | 164(66.9\%) | 81(33.1\%) |
| Complies with quality standards of raw materials | 159(64.9\%) | 86(35.1\%) |
| Suspicion of substandard products | 226(92.2\%) | 19(7.9\%) |
| Ever reporting suspicion to legal authority | 238(97.1\%) | 7(2.9\%) |
| Available written procedure for drug recall | 202(82.4\%) | 43(17.6\%) |
| Ever had to recall a product after being dispensed | 161(65.9\%) | 83(34.1\%) |
| Recalled products stored separately from other products | 158(64.7\%) | 86(35.3\%) |
| System and procedure precisely, timely and transparently used | 53(21.7\%) | 192(78.3\%) |
| Takes into account patients' considerations | 8(3.3\%) | 237(96.7\%) |
| Patients consult for unusual responses to medication | 20(8.2\%) | 225(91.8\%) |
| Refers to treating physician when necessary | 27(10.9\%) | 218(89.1\%) |
| Keeps database about medication monitoring | 204(83.3\%) | 41(16.7\%) |
| Performs point of care testing | 64(26.2\%) | 181(73.8\%) |
| Educates patients on how to use web based health information | 121(49.6\%) | 123(50.4\%) |
| Literature resources available for use by pharmacists | 46(18.7\%) | 199(81.3\%) |
| Drug catalogues available for use by pharmacists | 118(48.4\%) | 126(51.6\%) |
| Medica book available for use by pharmacists | 98(39.9\%) | 147(60.1\%) |
| Vidal book available for use by pharmacists | 161(65.6\%) | 84(34.4\%) |
| PDR book available for use by pharmacists | 235(95.9\%) | 10(4.1\%) |
| EDL resource available for use by pharmacists | 208(94.8\%) | 37(15.2\%) |
| Internet access available for use by pharmacists | 90(36.9\%) | 154(63.1\%) |
| Handbooks available for use by pharmacists | 165(67.4\%) | 80(32.6\%) |
| Pharmacist counsels patients | 9(3.7\%) | 236(96.3\%) |
| Pharmacist checks medications before dispensing | 18(7.5\%) | 227(92.5\%) |
| Pharmacist checks for contraindications | 69(28.2\%) | 176(71.8\%) |
| Pharmacist checks for drug interactions | 70(28.6\%) | 175(71.4\%) |
| Pharmacist checks for dosage prescribed | 55(22.6\%) | 189(77.4\%) |

NSAIDS=Non-Steroidal Inflammatory Drugs; COPD=Chronic Obstructive Pulmonary Disease; EDL=Essential Drug List

| Supplementary Table 4 - Indicator D: Storage | No n(\%) | Yes n(\%) |
| :--- | :---: | :---: |
| Power supply provided to pharmacy 24hrs a day | $3(1.0 \%)$ | $242(99.0 \%)$ |
| Pharmacy equipped with its own electrical generator | $170(69.6 \%)$ | $74(30.4 \%)$ |
| Electrical generator functions during the night | $18(7.3 \%)$ | $227(92.7 \%)$ |
| Stock management system helps controllign stock orders | $24(9.6 \%)$ | $221(9.4 \%)$ |
| Stock management system helps controlling expiry dates | $22(9.2 \%)$ | $222(90.8 \%)$ |
| Pharmacy uses contingency plans and purchases in emergency | $108(44.0 \%)$ | $137(56.0 \%)$ |
| System for monitoring and periodic inspection of expired drugs | $22(9.0 \%)$ | $223(91.0 \%)$ |
| Encourages patients to return expired/unwanted products | $209(85.3 \%)$ | $36(14.7 \%)$ |
| Available records for expired drugs | $84(34.2 \%)$ | $161(65.8 \%)$ |
| Expired drugs stored separately from others | $11(4.5 \%)$ | $234(99.5 \%)$ |
| Specific procedure for disposal of expired products | $168(68.4 \%)$ | $77(31.6 \%)$ |
| Knows the number of items in stock | $231(94.4 \%)$ | $14(5.6 \%)$ |
| Cites available brands containing amoxicillin/clavulanate | $51(20.7 \%)$ | $194(79.3 \%)$ |
| Makes use of pest control services | $121(49.4 \%)$ | $124(50.6 \%)$ |


| Supplementary Table 5- Items verified by the interviewer | No n(\%) | Yes n (\%) |
| :---: | :---: | :---: |
| Indicator B: Services and Facilities |  |  |
| Patients accessibility to seating* | 32(13.0\%) | 184(75.2\%) |
| Patients accessibility to weighing scale* | 18(7.5\%) | 196(80.2\%) |
| Patients accessibility to body height scale* | 94(38.6\%) | 121(49.5\%) |
| Patients accessibility to drinking water* | 152(61.9\%) | 65(26.4\%) |
| Patients accessibility to water closet* | 2(0.9\%) | 215(87.8\%) |
| Storage area separate from toilets and preparation laboratory* | 0 | 214(87.5\%) |
| Toilet available for customers' use* | 139(57.0\%) | 76(30.9\%) |
| Toilet facilities are clean* | 2(0.9\%) | 214(87.4\%) |
| Toilet facilities are functiona** | 0 | 215(88.0\%) |
| Paper toilet available* | 3(1.1\%) | 214(87.2\%) |
| Hand washing facilities* | 4(1.6\%) | 213(87.1\%) |
| Soap available for hand washing* | 1(0.5\%) | 216(88.1\%) |
| Indicator C: Dispensing, Preparation, Administration and Distribution of Medicines |  |  |
| Preparation area cleanliness above average* | 27(10.7\%) | 183(74.6\%) |
| Indicator D: Storage |  |  |
| Medicines protected from direct sunlight* | 8(3.2\%) | 209(85.5\%) |
| Ambient temperature in pharmacy monitored by a thermometer* | 158(64.5\%) | 57(23.1\%) |
| Functional cooling system available in pharmacy* | 3(1.0\%) | 215(87.7\%) |
| Fan used for cooling the pharmacy * | 203(83.0\%) | 13(5.4\%) |
| Air conditioning used for cooling the pharmacy * | 3(1.4\%) | 213(87.0\%) |
| Functional heating system in the pharmacy* | 31(12.6\%) | 186(76.1\%) |
| Radiators used for heating the pharmacy* | 185(75.5\%) | 20(8.2\%) |
| Air conditioning used for heating the pharmacy * | 67(27.5\%) | 138(56.2\%) |
| Electric heater for heating the pharmacy* | 156(63.6\%) | 19(20.1\%) |
| Ductless mini split for heating the pharmacy* | 196(80.0\%) | 9(3.8\%) |
| Refrigerator available in the pharmacy* | 1(0.3\%) | 217(88.4\%) |
| Only medicines are stored in the refrigerator* | 53(21.5\%) | 163(66.8\%) |
| Vaccines stored in the center of the refrigerator* | 47(19.1\%) | 15462.9\%) |
| Items other than medications stored in the refrigerator: food* | 188(74.9\%) | 32(13.1\%) |
| Items other than medications stored in the refrigerator: beverage* | 202(83.0\%) | 12(5.0\%) |
| Items other than medications stored in the refrigerator: both* | 209(85.9\%) | 5(2.1\%) |
| Temperature in the fridge monitored* | 106(43.4\%) | 109(44.5\%) |
| Signs of leaks in the roof* | 141(57.8\%) | 73(29.8\%) |
| Surface of storage sufficient for all items* | 14(5.5\%) | 204(83.2\%) |
| All medicines stored on the shelves* | 11(4.7\%) | 206(84.1\%) |
| Medicines stored using a systematic pattern* | 4(1.8\%) | 212(86.7\%) |
| Shelves are labeled* | 127(51.8\%) | 90(36.9\%) |
| Storage cupboards and drawers have locks* | 137(56.1\%) | 80(32.7\%) |
| The storage room has a lock* | 112(45.8\%) | 104(42.5\%) |
| Open bottles dated when available* | 1(0.5\%) | 10(4.3\%) |
| Lids or caps available on open bottles* | 0 | 11(4.4\%) |
| Medicine bottles/containers stored on the floor* | 141(57.6\%) | 58(23.8\%) |

*Missing values are recorded whenever the item could not be verified by the interviewer

