**Supplemental Digital Content 2.** Use of antibiotics as reported by a cohort of 6625 parents and caregivers in Italy.

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| Questions and answers | *n* | % |
| [Q23] When your child has been diagnosed with pharyngitis | (16 missing) |  |
| I was always instructed to do a throat swab and then start antibiotic therapy | 2797 | 42.3 |
| I was immediately prescribed antibiotic-therapy | 1276 | 19.3 |
| My children have never had pharyngitis / tonsillitis | 2536 | 38.4 |
| [Q24] When your child has been diagnosed with a suspected urinary tract infection | (4 missing) |  |
| I am always instructed to do a urine culture before starting therapy | 2720 | 41.1 |
| I was immediately prescribed antibiotic-therapy | 328 | 5.0 |
| My children have never had a urinary tract infection | 3573 | 54.0 |
| [Q25] If your pediatrician prescribes an antibiotic for an infection, you know that | (13 missing) |  |
| The antibiotic needs 2-3 days to take effect | 5971 | 90.3 |
| The fever must stop within 24 hours of starting therapy otherwise it means that the antibiotic has no effect | 641 | 9.7 |
| [Q26] If your pediatrician prescribes an antibiotic for an infection, you know that | (4 missing) |  |
| I have to respect times and doses prescribed by the pediatrician | 6583 | 99.4 |
| As soon as the baby feels better (for example if the fever stops) I can stop the therapy | 38 | 0.6 |
| [Q27] Which antibiotic did your pediatrician recommend to you most often? | (47 missing) |  |
| Amoxicillin+clavulanic acid | 2723 | 41.4 |
| Amoxicillin | 2099 | 31.9 |
| Cephalosporins | 521 | 7.9 |
| Macrolides | 418 | 6.4 |
| Altro | 817 | 12.4 |
| [Q28] What do you think is the most effective antibiotic | (6 missing) |  |
| The antibiotic aimed at my child's disease, if really needed | 6340 | 95.8 |
| The antibiotic that acts against as many bacteria as possible | 161 | 2.4 |
| The intramuscular antibiotic | 118 | 1.8 |
| [Q29] How many times has your child taken an antibiotic in the past 12 months? | (5 missing) |  |
| Never | 3134 | 47.3 |
| 1-3 times | 3192 | 48.2 |
| 4-6 times | 237 | 3.6 |
| >6 times | 57 | 0.9 |
| [Q30] Have you ever been given an antibiotic to your child without him being examined by the pediatrician? | (5 missing) |  |
| never | 5937 | 89.6 |
| <20% of the times he had a fever | 592 | 8.9 |
| 20-50% of the times he had a fever | 64 | 1 |
| >50% of the times he had a fever | 30 | 0.5 |
| [Q31] Have you ever given your child an antibiotic based on a single phone consultation (without your child being seen by the pediatrician)? | (10 missing) |  |
| Never | 5303 | 80.2 |
| <20% of the times he had a fever | 1089 | 16.5 |
| 20-50% of the times he had a fever | 159 | 2.4 |
| >50% of the times he had a fever | 64 | 1 |
| [Q32] Have you ever dispensed an antibiotic to your child based on a single consultation via phone messages with the pediatrician (for example via whatsapp, without your child being visited by the pediatrician)? | (2 missing) |  |
| Never | 5981 | 90.3 |
| <20% of the times he had a fever | 513 | 7.7 |
| 20-50% of the times he had a fever | 94 | 1.4 |
| >50% of the times he had a fever | 35 | 0.5 |
| [Q33] Have you ever dispensed an antibiotic to your child on your own initiative, without having consulted the pediatrician in any way? | (5 missings) |  |
| Never | 6178 | 93.3 |
| <20% of the times he had a fever | 394 | 6 |
| 20-50% of the times he had a fever | 29 | 0.4 |
| >50% of the times he had a fever | 19 | 0.3 |
| [Q34] If you happened to give an antibiotic on your own, why did you do that? | (6207 missings) |  |
| I was sure my son needed it | 203 | 48.6 |
| I was unable to take my son to visit due to personal commitments | 10 | 2.4 |
| I wanted to take my son for a visit, but the pediatrician was not available | 41 | 9.8 |
| The pediatrician had already prescribed me an antibiotic for similar problems | 214 | 51.2 |
| Acquaintances recommended it to me | 7 | 1.7 |
| I read it on the internet | 3 | 0.7 |
| [Q35] In the case of antibiotic self-prescription: | (1 missing) |  |
| I have never given antibiotics without medical advice | 6230 | 94.1 |
| I dispense the dose suggested by the package leaflet | 231 | 3.5 |
| I start with the dose suggested by the package leaflet and then contact the pediatrician | 139 | 2.1 |
| I rely on suspicion of disease (otitis, pneumonia) trying to find information on the most suitable dose for each disease | 24 | 0.4 |
| [Q36] In general, you have one or more antibiotics at home to use on your own if you think your child needs them? | (4 missings) |  |
| No | 5778 | 87.3 |
| Yes | 843 | 12.7 |
| [Q37] If you took your child to the pediatrician after starting antibiotic therapy on your own initiative, the pediatrician: | (163 missings) |  |
| I have never given antibiotics on my own | 5716 | 88.5 |
| Although he disagreed, he suggested continuing the ongoing therapy for a total duration of 5 days | 366 | 5.7 |
| Although he disagreed, he suggested continuing the ongoing therapy for a total duration of 7 days | 202 | 3.1 |
| Continued therapy without commenting on the duration or suggesting to end therapy by finishing the "box" or "syrup" | 1.39 | 2.2 |
| Recommended an interruption of the ongoing therapy | 39 | 0.6 |
| [Q38] Do you think you have ever influenced your pediatrician to be prescribed an antibiotic? | (11 missings) |  |
| Never | 6100 | 92.2 |
| <20% of the times he had a fever | 446 | 6.7 |
| 20-50% of the times he had a fever | 56 | 0.8 |
| >50% of the times he had a fever | 12 | 0.2 |
| [Q39] If you go to your pediatrician thinking that your child needs an antibiotic but your pediatrician doesn’t prescribe it, what is your approach? | (12 missings) |  |
| I accept the pediatrician's decision without arguing | 3234 | 48.9 |
| I accept the pediatrician's decision but ask for clarification to better understand the decision | 2965 | 44.8 |
| I consider it necessary to receive a second opinion (private pediatrician, emergency room) | 374 | 5.7 |
| I insist that he should prescribe an antibiotic, pointing out the risk of a possible worsening | 36 | 0.5 |
| I threaten that if there is a worsening of the child, no matter what the reason, I will take legal action | 4 | 0.1 |
| [Q40] Have you ever thought (or did) to change your pediatrician because he too rarely prescribes antibiotic therapy? | (1 missing) |  |
| No | 6453 | 97.4 |
| Yes | 171 | 2.6 |
| [Q41] Have you ever thought (or did) to change your pediatrician because he prescribes antibiotic therapy too often? | (19 missings) |  |
| No | 5722 | 86.6 |
| Yes | 884 | 13.4 |
| [Q42] Has the doctor ever insisted on giving your child an antibiotic even though you didn't think it appropriate? | (8 missings) |  |
| No | 6105 | 92.3 |
| Yes | 512 | 7.7 |
| [Q43] in general, you think that your pediatrician | (21 missings) |  |
| gives me adequate information when he prescribes an antibiotic, explaining why he administers it, how to administer it, what is the correct use of antibiotics | 5696 | 86.3 |
| is hasty, he only tells me whether or not to take the antibiotic, without providing explanations | 908 | 13.7 |