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# International Law Has a Role to Play in Addressing Antibiotic Resistance

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## Introduction

Adopting international legal agreements for every global health challenge is not a good idea. Such an enterprise would require unprecedented political mobilization and resources that are impossible to sustain, and it would lead to further fragmentation in global health governance. International legalization also has its costs and trade-offs, including potentially devastating dark sides that we have tallied elsewhere.<sup>1</sup>

Yet we believe that calls for an international legal agreement on antibiotic resistance (ABR) are important and that such an agreement is in fact much needed for the future of global health.<sup>2</sup> We came to this conclusion based on a reasoned assessment of the facts before us — the potential benefits, costs, and trade-offs of an ABR legal agreement — and consideration of four criteria we previously proposed for prospectively evaluating proposals for new global health treaties.<sup>3</sup> We came to this conclusion despite previously expressing concerns about adopting new international legal agreements on global health issues.

Why are we so supportive of an international legal agreement on ABR?

## Weighing Benefits, Costs, and Trade-Offs

For potential benefits, we are not under the illusion that international legal agreements always yield positive outcomes. We know the empirical research literature is actually quite mixed: our recent review of 90 quantitative impact evaluations of international legal agreements across domains found that some agreements produced desired effects and others did not.<sup>4</sup> Some impact evaluations even found that international legal agreements were counterproductive to their aims and possibly caused harm.<sup>5</sup> The only two studies evaluating international legal agreements' health effects found structural adjustment agreements worsened basic literacy, infant mortality, and life expectancy at age one,<sup>6</sup> and that international human rights agreements did not improve life expectancy, infant mortality, child mortality, or maternal mortality.<sup>7</sup> Yet we also know that the global collective action problems preventing action on ABR require strong interdependent commitments from states to be overcome, and that international legal agreements formally represent the strongest possible way through which states can make commitments to each other.<sup>8</sup>

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For potential costs, we know first-hand that crafting international legal agreements involves many millions of dollars for numerous meetings, lawyer salaries, negotiator per diems, long-haul flights, and hotel accommodation, and then many more millions are needed for maintenance costs of new governance structures like conferences of parties, annual reporting by states, and diplomatic staff from all participating countries. There are also opportunity costs associated with devoting limited resources, political capital, and rhetorical space to one strategy, effectively shelving other important initiatives with similar objectives and possibly higher impact.<sup>9</sup> Yet we also know that these costs are dwarfed by the costs of inaction that are already being incurred. This includes the estimated 700,000 deaths currently caused each year by

may encourage bolder legal provisions than are often agreed, and that ABR requires cross-sectoral collaboration that will not come even with the most coherent governance of traditional global health actors.<sup>12</sup>

### **ABR Satisfies Four Criteria for New International Legal Agreements**

Given the uncertain benefits, costs, and trade-offs of an international legal agreement on ABR, we would argue that one should not be adopted unless at least four criteria are met.<sup>13</sup> First, the nature of the problem should have a *significant transnational dimension*, meaning it involves multiple states, transcends national borders, and transfers risks of harm or benefit across countries. Second, the nature of the solution should *justify the use of an instrument with coercive*

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resistance to all kinds of antimicrobials (including antibiotics and also antifungals, antiparasitics, and antivirals), the 10 million deaths per year expected from antimicrobial resistance in 2050, and the \$100 trillion USD cumulative global costs anticipated from it over the next 35 years.<sup>10</sup>

For potential trade-offs, we know the international legalization of ABR policies may prioritize process over outcomes, consensus over plurality, homogeneity over diversity, generality over specificity, stability over flexibility, precedent over evidence, states over non-state actors, ministries of foreign affairs over ministries of health, and lawyers over health professionals. International legal agreements are often ambiguous and lack specific commitments as states settle for the lowest common denominator. They are also often slow to be implemented, challenging to enforce, and difficult to modify. An international legal agreement on ABR could crowd out alternative approaches, limit future action in the area, and further exacerbate challenges in global health governance by promoting a piecemeal, issue-specific approach.<sup>11</sup> Yet we also know that ABR will not be solved by doctors and health professionals by themselves, that the common threat posed by ABR

*features*, such as if the international legal agreement's provisions (a) address multilateral challenges that cannot practically be addressed by any one state alone; (b) resolve collective action problems where benefits are only accrued if multiple states cooperate or coordinate their responses; or (c) advance superordinate norms that embody humanity and reflect near-universal values. Third, the international legal agreement should have a *reasonable chance of achieving benefits*, which means it incentivizes those with power to act, institutionalizes accountability mechanisms designed to bring rules into reality, and/or activates interest groups to advocate for its full implementation. Fourth, an international legal agreement should represent the *best commitment mechanism* for global collective action on the challenge and be projected to achieve greater benefit for its costs than competing alternative mechanisms like political declarations, codes of practices, funding contracts, and institutional reforms.<sup>14</sup>

The proposal for an international legal agreement on ABR satisfies these four criteria. ABR is one of the greatest global risks spreading unabated across state boundaries,<sup>15</sup> a multilateral challenge involving the exploitation of an essential common-pool resource,<sup>16</sup>

and a global public good challenge for ensuring universal access to existing antibiotics (which benefits people beyond the individual consumer) and progress in innovation towards new antibiotics (which also benefits all).<sup>17</sup> It has a reasonable chance of achieving benefits by incentivizing those with power to act, and alternative commitment mechanisms have thus far proven ineffective – including WHO’s ABR strategy from 2001 and follow-on World Health Assembly resolutions.<sup>18</sup> The linchpin is that ABR depends on near-*universal* collective action for it to be tackled, as well as coordinated interdependent action across sectors on access, conservation and innovation for antibiotics.<sup>19</sup>

## Conclusion

An international legal agreement that promotes access, conservation, and innovation for antibiotics represents an excellent candidate for the use of international law. Nonetheless, ultimately, the actual utility of such an agreement will depend largely on whether these global common good and public good challenges persist, and states’ willingness to address them by adopting an agreement with sufficiently ambitious content and robust accountability mechanisms for the whole undertaking to be worthwhile.<sup>20</sup>

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