

Antibiotic Resistance

Summary

The use of antibiotics on farms is driving antibiotic resistance. This is a major health threat for humans, as it makes antibiotics used to treat illnesses less effective. Increasing regulation of the use of antibiotics on farms or raising their price can reduce antibiotic resistance and benefit animals. By making it more costly for farmers to raise animals, it may raise the price of meat, lowering demand and sparing animals from lives on factory farms. On the other hand, if regulating against the use of antibiotics is not combined with welfare improvements for animals, this intervention could have a negative effect by worsening the conditions on farms. This is particularly worrying as welfare improvements seem unlikely in our target countries (China, Brazil, and India).

Description of intervention

The Centers for Disease Control and Prevention have reported that antibiotic-resistant bacteria infect millions of Americans every year, and thousands die [1]. About 80% of antibiotics produced in the U.S. are given to farm animals. This steady stream of antibiotics contributes to the development of antibiotic-resistant bacteria and superbugs that cannot be killed by standard antibiotics [2]. This intervention considers options for banning or limiting the use of antibiotics on farms, and options for increasing the price of antibiotics as another way to limit their use.

Biggest strengths and weaknesses of this intervention

- Strength: it is beneficial for both humans and animals and therefore should be more palatable.
- Weakness: if antibiotics are removed from the factory farming system in isolation, without any welfare improvements taking place, this could actually be worse for animal welfare [5]. So, we will have to be careful about the work we do in this space.

Summary of how the intervention scores on each criterion

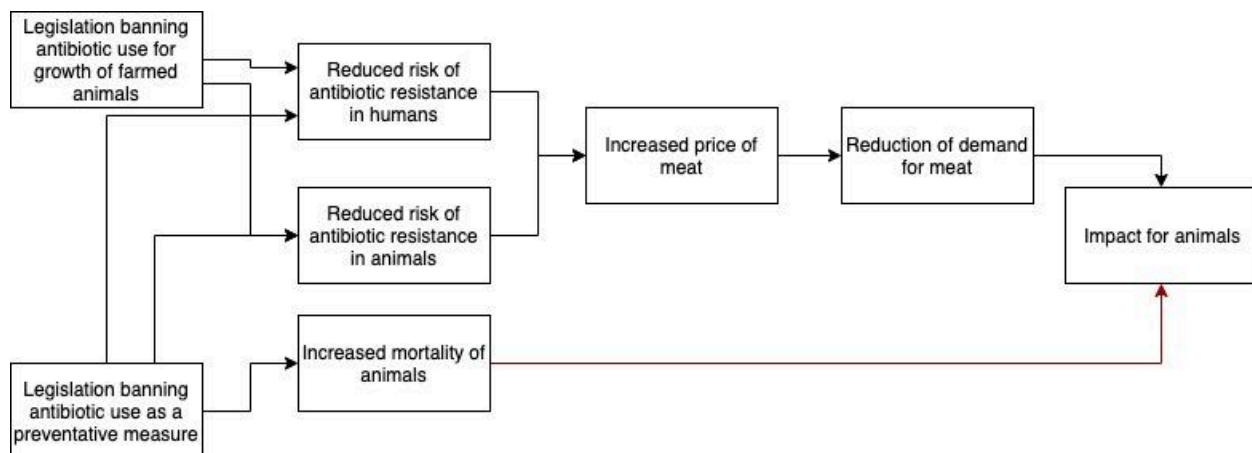
Animal	Problem	Idea	Score	Strength of idea	Limiting factors	Execution difficulty	Externalities
				2	1.5	1	0.5
Farmed animals	Antibiotic resistance and the low price of animal products	Reducing or preventing the use of antibiotics on farmed animals	32.0	6.5	7	6	5

Brief description of how the intervention performs on each criterion

Criteria	Ranking	Description
Strength of the idea	6.5/10	The impact of this intervention on animal welfare is unclear. It could reduce the demand for meat by increasing its price, but could also have a negative impact if reducing antibiotics isn't accompanied by welfare improvements.
Limiting factor	7/10	Counterfactual replaceability is high in the US and the EU as many other organizations are working on this (although mostly from a human perspective, not an animal perspective). Funding isn't likely

		to be an issue, and we can likely get this funding from counterfactually clean sources (i.e., non-EA and non-animal sources) as this is a human-focused issue too.
Execution difficulty	6/10	We will likely work in China, Brazil or India as these countries are the biggest consumers of antibiotics for farmed animals. (The US is also on this list but a lot of organizations are already working there.) [7] Cultural differences will potentially create a barrier to success. A further difficulty is that the intervention will likely be done through a government campaign.
Externalities	5/10	There are strong positive externalities for humans. The effect of antibiotic resistance on humans is very well evidenced, and there is strong evidence for the link between antibiotic use in farmed animal feed and antibiotic resistance in humans [6]. Also, an increase in the price of meat makes it counterfactually quicker for clean meat to be cost-competitive with traditional meat.

Basic causal chain



Provisional conclusion

This could be good both from a human and an animal perspective. However, there is a chance that it will negatively affect animals if we aren't careful in our campaign, as preventing the use of antibiotics in farming systems as they currently are could be worse for animals. Therefore it would have to be combined with welfare improvements.

References

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