

WHAT PRICE EDUCATION?

Faced with growing criticism over the inflated cost of its treatments in the United States, the pharmaceutical industry needs to start telling its side of the story.

In a year in which the US pharmaceutical industry has been on the receiving end of much criticism over its pricing policies, one more plea for transparency would not, at first glance, seem to stand out from the crowd. However, this plea came not from politicians tossing sound bites to their hungry rank-and-file party members during an election year. Nor did it come from the authors of the slew of books questioning the moral and social basis of the prices that companies charge for their medicines. In fact, the plea came from a member of the industry itself, speaking at a recent MIT forum on global drug pricing and sustainable innovation. It is clear, said the speaker, that what we think we are doing and what the public think we are doing are two different things. Shouldn't industry tell the public what it does?

This call to arms highlights the yawning gap between the industry and its consumers. Faced with the spectacle of constant arguments over reimportation and drug pricing agreements with other countries, political lobbying by companies and an increased focus on patent extensions, attitudes towards the industry are changing. More and more, people are asking why the consumer should be made to foot the bill for what they perceive as companies' desire for higher profit margins.

Although the industry is all too familiar with how long, costly and risk-filled drug discovery and development can be, can the same be said for the consumer? A poll carried out earlier this year by the US public education and advocacy alliance Research! America and the Sunday magazine *PARADE* suggests that consumers, by and large, underestimate the nature of the task. For example, 29% of people thought that it takes on average 1–4 years to bring a drug to market, and 40% thought 5–9 years. Only a fifth of those polled agreed with the average figure of 10–15 years suggested by data from the Tufts Center for the Study of Drug Development (CSDD).

Drug development has an exceptional cost structure, explained another speaker at the MIT forum. Like other industries, such as electricity and telecommunications, pharma has high upfront costs and low marginal costs.

However, the difference between these sets of costs is much greater for the pharmaceutical industry. You need to invest around \$800 million (the Tufts CSDD-estimated average cost of bringing a new drug to the regulatory approval submission stage) to make the first tablet — in effect, to get the science right — but the cost of the second tablet, and all thereafter, is only a handful of cents. Naturally, we are all happy to pay for the second tablet, but somehow the cost of the first still needs to be recouped. This, together with estimates that only three out of ten drugs that reach the market actually make a profit, helps to explain the apparently inflated profit margins at which the industry is accused of operating.

But perhaps the industry needs to go one step further in its explanations. It might be time to admit to consumers that the science behind drug discovery is more difficult than they have previously been led to believe. Our understanding of the disease process has expanded to a point where we are beginning to move away from thinking of diseases as comparatively simple, linear paths of causation, towards viewing them as more complex entities involving multiple interacting pathways. Given that the diagrams describing the pathways affecting most diseases now resemble subway maps from large cities, the task of pinpointing single therapeutic targets and creating treatments that selectively up- or down-regulate them can turn even the most seasoned travellers into confused and perplexed tourists.

Admitting that it is this terrifying complexity that requires the reinvestment of so much money, and makes drugs so difficult to develop, would require a leap of faith greater than many companies would care to make. Such a statement would be accompanied by the unspoken admission that many diseases are going to remain unconquerable for a long time to come, an admission that would be less than favourably viewed by investors. But public opinion is shaping itself in the absence of industry's perspective and although striking the right balance will be tricky, the question might now be not whether companies can afford to give their side of the story, but whether they can afford not to.

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