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Revitalizing pharmaceutical R&D

The value of real world evidence

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About the authors

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The authors used the following sources in this report: EvaluatePharma; Datamonitor: NICE: G-BA annual report 2013; CMR International Pharmaceutical R&D Factbook 2013; Strategy&.

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Executive summary

Pharmaceutical companies, already coping with the patent cliff and the pressures of a changing healthcare system, face another major challenge that threatens reimbursement and value capture. This is the potential disruption from real world evidence (RWE) as a factor in evaluating new drugs. The emergence of health technology assessment practices around the world today makes it still more difficult to achieve attractive reimbursement value for newly launched pharmaceutical products.

In combination, these developments are likely to accelerate the transition toward an outcomes-based paradigm in major healthcare markets. The sober reality could be a continuously declining return on each dollar invested in R&D.

To escape this vicious circle, a fundamental overhaul of the prevailing pharmaceutical R&D model is required. Two trends point the way to a solution. First, healthcare reimbursals are increasingly linked to the demonstration of evidence on real world outcomes during tests of the impact of new drugs. Second, there is a trend toward measuring the impact on different patient subgroups, and varying payments accordingly.

Pharmaceutical companies need to put into practice an integrated evidence development model that seamlessly brings together randomized controlled trials and RWE-based approaches, enabling an adaptive licensing paradigm along the full life cycle of each new drug. This new R&D model would achieve a reliable proof of concept and a good safety profile for all new pharmaceuticals. It would also establish protocols based on evidence generation from use of the drug in the market: collecting clinical effectiveness data rather than generating additional clinical efficacy information in randomized controlled trials. This would immediately reduce cycle time by about five years and required R&D investment per product by about 60 percent.

In a recent survey of pharmaceutical industry leaders, respondents said they clearly see the benefits of this approach and agree on accelerating it. In particular, pragmatic trial arms represent one underutilized opportunity. But despite the clearly perceived benefits and manageable hurdles, this type of model is rarely put into practice. The reasons have more to do with management than any other factor. Sixty percent of the respondents said they lack direction from senior management and do not have meaningful metrics to guide the required behavioral change. In other words, pharmaceutical companies have a great deal of leverage for change, if they are willing to use it.

New technological possibilities – putting data from integrated and adaptive evidence into the hands of many new classes of users – have turned proficiency with RWE into a make-or-break condition for the pharmaceutical industry. Most industry leaders see the benefits of an RWE-based model, but are waiting for direction from senior management. If pharmaceutical companies fail to build an effective RWE-based capabilities system, they are at risk of quickly losing control over the value communication around their own drugs, as other stakeholders such as payors, data analytics companies, and academia are currently enhancing their own capabilities. In consequence, this might potentially even lead to a significant decline in use and reimbursement.

How can pharmaceutical companies mitigate this risk and build the required capabilities system? We suggest two distinct possible approaches. A top-down approach has the advantage of developing proper momentum quickly, but it typically comes with a high risk of subsequent failure due to insufficient buy-in at the country level, where the real work to build and deliver the required capabilities needs to occur. The bottom-up approach leverages pilot countries and typically starts more slowly, but it ensures effective engagement and buy-in from key people in every geography.

The next challenge for global pharmaceutical

The ripple effects of the patent cliff, the financing crisis in many major healthcare systems, and the massive power shift toward new stakeholders such as payors threaten the future growth of the pharmaceutical industry. One prominent example of top-line pressure from the patent cliff is the sales decline of Pfizer's former best-selling drug Lipitor by 70 percent within two months after the loss of exclusivity. In the United States alone, pharmaceutical products worth US$120 billion in revenues have lost market exclusivity since 2008. The trend is expected to continue, with another $125 billion worth of products expected to lose patent protection before 2020.

A second big challenge to pharmaceutical companies' top line is caused by the cost explosion in major healthcare systems. U.S. healthcare expenditures amounted to 17.5 percent of GDP in 2013; even the Western European average, 10.5 percent of GDP, is unsustainable. A recent PwC report projects a spending increase for specialty drugs in the United States from $87.1 billion in 2012 to $192.2 billion in 2016 and $401.7 billion in 2020 – reflecting an annual growth of more than 20 percent. 1 The public discussion about the affordability of specialty drugs like Gilead's hepatitis C cure, Sovaldi, provides a good indication of the severity of the cost pressures, especially with the shifting dynamics of pricing influence in the healthcare system. Lawmakers such as U.S. Sen. Ron Wyden and his former colleague Charles Grassley have openly questioned Gilead's high price strategy in light of its relatively low development and production costs. Leading U.S. and E.U. payor organizations are negotiating for pay-for-cure payment plans, pressuring Gilead by warehousing patients until competitor drugs receive market access authorization.

In industrialized countries and even in emerging markets like China and India, these sorts of cost containment measures increase the top-line pressure on pharmaceutical companies. The average top-line growth of the top 10 pharmaceutical companies decreased from 5.0 percent in 2008 to -0.8 percent in 2013, and this trend most likely will continue.

This more demanding reimbursement environment raises the bar for pharmaceutical innovation, making it increasingly important to release new and differentiated products. However, the replacement power of current pharmaceutical companies' pipelines is challenged as well. Traditional fast follower and best-in-class strategies will not work anymore. The emergence of health technology assessment (HTA) practices in many healthcare systems makes it harder to achieve an attractive reimbursement value for newly launched products. Between March 2000 and April 2014 in the United Kingdom, the National Institute for Health and Care Excellence (NICE) gave 36 negative recommendations out of 141 single technology appraisals — a rejection rate of 26 percent. For new oncology products, the rejection rate was even higher, at 42 percent negative recommendations: 24 out of 57 were turned down. Even a breakthrough designation for early launch from the U.S. FDA, based on high unmet medical need and first evidence of true differentiation, is not a guarantee of a positive NICE recommendation. For example, Novartis' Afinitor breast cancer medication was approved by the FDA but got a negative NICE recommendation.

Another example of the HTA effect is Germany's Act on the Reform of the Market for Medicinal Products (Arzneimittelmarktneuordnungsgesetz, or AMNOG), which has been in place since 2011. This reorganization of the pharmaceutical market has, in some cases, made pharmaceutical companies reluctant to launch new products. They are mindful of unfavorable reimbursement recommendations for some products, which might lead to negative implications for drug prices in other E.U. and non-E.U. countries due to the applied reference pricing. The assessments by the government agency overseeing pharmaceuticals (Gemeinsamer Bundesausschuss, or G-BA) building on guidance from the German HTA institute (Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen, or IQWiG) have been highly challenging for

'For any given drug, payments will be increasingly based on evidence of the real world impact of the medication.'

pharmaceutical companies. Between January 2011 and December 2013, 51 out of 62 assessments found less than a significant incremental benefit – a rejection rate of 82 percent. Since AMNOG requires additional "patient-relevant benefits" involving, for example, overall survival and quality of life parameters that are more difficult to measure than surrogate parameters, this ratio is unlikely to improve in the short term.

These examples highlight two defining developments for the future of pharmaceutical reimbursement and value capture. First, for any given drug, payments will be increasingly based on the demonstration of evidence of the real world impact of the medication. Second, the measurement of impact will increasingly lead to varying payments for different patient subgroups. Together, these developments are likely to accelerate the transition toward an outcomes-based paradigm in the major healthcare markets. In a recent survey by PwC's Health Research Institute, 60 percent of U.S. health insurance companies clearly stated their expectation for drugmakers to demonstrate comparative clinical benefits as part of their formulary negotiation process. 2

This transition will in turn dramatically affect the capabilities that pharmaceutical companies need to build internally to have a sustainable business in the future. Even as companies have sought to protect themselves – focusing on innovative contracting and other commercial tactics within the constraints of the existing model – they risk being unprepared for an outcomes-based paradigm. The key is to move to an integrated evidence development model that seamlessly brings together randomized controlled trials (RCTs) and real world evidence (RWE) to enable an adaptive licensing approach along the full life cycle of each drug.

If the pharmaceutical industry fails to address this risk quickly, it is likely that payors and other stakeholders will drive the RWE development themselves and gain further control over pricing and value communication for drugs and other therapies. In short, the burden is now on pharmaceutical R&D organizations and their corporate leadership to fundamentally overhaul the evidence development model. With the new model, the true differentiation of new products can be demonstrated in ways that matter to payors and other external stakeholders.

The evidence-based model as a spur to R&D

The continuously declining productivity of the pharmaceutical industry makes an overhaul of the R&D model more important than ever. The new RCT/RWE model can be used to develop a powerful R&D engine with the capability to deliver a continuous stream of truly differentiated products, performing the required integrated evidence development along the full life cycle.

The sober reality is a continuously declining return on investment for R&D in this industry, along with a lack of capabilities in the RWE area and a lack of integration with RCTs. Average cycle time from molecule discovery to product launch rose from 12 years in 2003 to 15 years in 2010. Though the average cycle time has since returned to 12 years, we believe that this is mainly attributable to a shift to drugs with orphan disease status and accompanying shorter development programs, rather than to a general improvement of R&D productivity. Therefore, the general trend to longer cycle times continues. Meanwhile, the investment required to bring a new molecule to the market remains at $3 billion to $5 billion, and there is an unsustainably high late-stage attrition rate. The resulting margin pressure on pharmaceutical companies is significant. The average EBITDA margin of the top 10 pharmaceutical companies declined from 34.1 percent in 2008 to 32.0 percent in 2013.

Many leading pharmaceutical companies have started initiatives to incrementally improve R&D productivity by reducing cycle times and lowering late-stage attrition. They are experimenting with pre-competitive consortia and partnerships, translational approaches, ways to improve protocol design with regard to feasibility and quality risks, and risk-based resource allocation to monitoring of clinical trial sites. All these initiatives are justified and valuable, if executed well. But they all optimize within the constraints of the existing R&D model, and thus can result only in an incremental improvement of R&D productivity. The severity of the current situation requires a much more fundamental improvement of R&D productivity.

The RWE-based model promises to improve R&D productivity in a far more fundamental way. Suppose that a company could launch new products at the proof of concept (PoC) stage – shortly after phase IIa of a conventional launch cycle.

This would immediately reduce cycle times by approximately five years and required R&D investment per product by about 60 percent.

Could this really happen? Probably yes. To make it reality, companies would have to develop enriched analytical capabilities. The industry (and its regulators) would need a change in risk perception, grounded in awareness of integrated evidence development along the full life cycle of a drug. That is the essence of the fully integrated RCT/RWE model.

Though the traditional randomized controlled trial model has proven successful for many years, it still relies on thinking and technical capabilities from the 1960s. The fully integrated RCT/RWE model emphasizes a different approach: using new technological capabilities to generate clinical-level evaluation in a real world patient treatment environment – without predefined patient inclusion/exclusion criteria or artificial patient adherence measures. Exhibit 1, next page, explicates the difference between these two models.

The new R&D model would emphasize achieving a reliable PoC with a good safety profile and an efficacy profile that would encourage the pharmaceutical company to continue the remaining evidence generation in the market. In other words, the next step would be collecting clinical effectiveness data rather than generating additional clinical efficacy information in randomized controlled trials. For example, the analysis of recent failures during phase III (late-stage attrition) is supportive of the new R&D model. It found these results for 75 compounds:

- 50 percent failed on efficacy
- 31 percent failed on safety 8 percent through confirmation of known safety concerns 23 percent through other safety issues

***Exhibit 1** Comparison of two pharmaceutical R&D models*

Traditional RCT model
- Timing: As soon as trials are complete
- Emphasis: Entire clinical development in controlled test environment with RCTs as main source of evidence post-PoC
- Focus: Safety; clinical efficacy
- Challenges: Late launch; significant late development stage attrition; often low reimbursement level despite successful launch

Fully integrated RCT/RWE model
- Timing: In three to five years
- Emphasis: Robust PoC based on experimental and real world evidence; early launch to generate evidence rapidly on real world effectiveness
- Focus: Safety; clinical efficacy until PoC; real world effectiveness post-PoC; pay-for-performance business model
- Challenges: Potential early commercial failure and liability risk; loss of reputation based on early launch or need for product withdrawal; low reimbursement level at launch; need for longitudinal positioning to continuously increase reimbursement level.

Source: Strategy&

The traditional randomized controlled trial model relies on thinking and capabilities from the 1960s.

- 19 percent failed on lack of differentiation
  16 percent on lack of differentiation in efficacy
  3 percent on lack of differentiation in safety

Safety issues are typically not the reason for late-stage attrition. In this case, only 26 percent of late-stage attrition was caused by unknown safety concerns or lack of safety differentiation. Even in traditional RCT trials, rare safety events cannot be detected before launch because of the limited sample size in confirmatory development. Thus, in RCT/RWE tests, PoC safety evidence could be considered sufficient for launch.

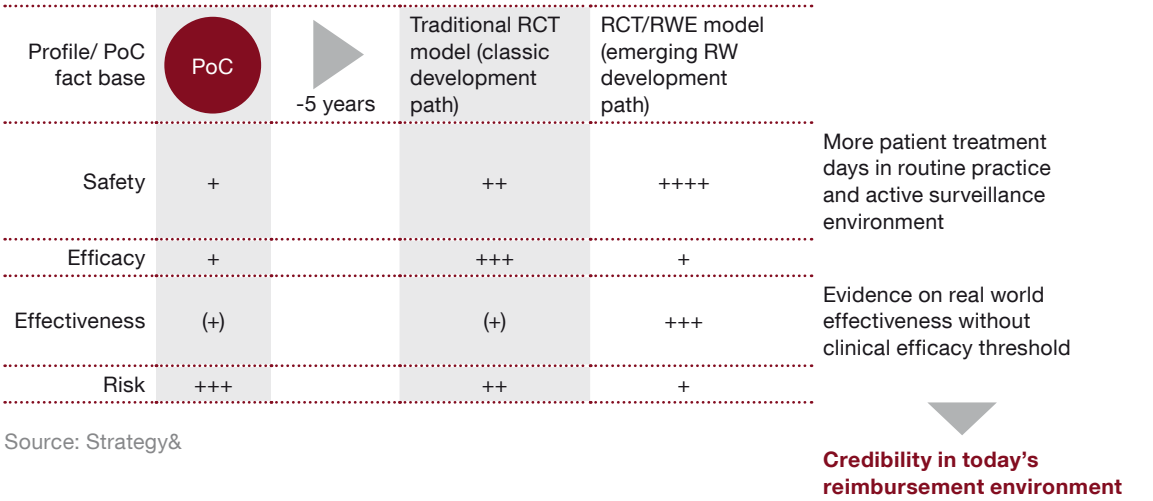
With 66 percent of the compounds, the reason for late-stage attrition was efficacy, including the lack of differentiation in efficacy. This suggests a mitigation strategy for pharmaceutical companies: Learn earlier about efficacy and clinical effectiveness, in order to avoid late-stage attrition. This would be in line with payors' expectations on evidence generation and could be realized by an R&D model involving launches at PoC.

The traditional development path, which does not launch until much later, typically leads to a basic safety and efficacy profile of the therapeutic principle without any evidence on clinical effectiveness. Finally, rare safety issues would be detected only in large outcomes trials or in the market post-launch. Further continuation on this path for five years or more would mainly enrich the evidence on clinical efficacy.

By contrast, a launch at PoC, if handled with robust and reliable guidance, would lead to earlier generation of clinical effectiveness data, as outlined in Exhibit 2, next page . It would enable the sponsor to collect precious clinical effectiveness data right away. It would also result, five years later, in meaningful evidence of a drug's risk/benefit and cost/ benefit profile that is in line with payors' expectations. Finally, it would protect the sponsor from big safety surprises in phase III programs. In short, the fully integrated RCT/RWE model would lead to results with higher external validity and generalized applicability earlier. These results consistently reveal the comparative effectiveness of different pharmaceutical interventions in routine treatment practice.

The RCT/RWE model would launch at PoC, and switch at the end of phase IIa from a randomized controlled trial approach (as in the traditional

***Exhibit 2** Fact bases for the traditional RCT and RCT/RWE models*



Source: Strategy&

model) to real world evidence generation in the form of randomized registry or other pragmatic trial formats. Over a five-year time frame, it and the traditional RCT model would generate very different forms of incremental evidence. The RCT/RWE model would be much more in line with payors' expectations, as it would lead to a much earlier generation of clinical effectiveness data and cover more of the patient populations that matter to payors. In addition, safety information based on patient treatment days in routine medical practice would be more meaningful. When combined with arrangements to share risk and gain information, the RCT/RWE model would significantly reduce the risk of failure in the market and also allow for proper reimbursement early on.

On the other hand, the earlier launch under the RCT/RWE model would have a higher risk of early failure in the market. But this hurdle can be overcome, especially given the recently changing regulatory environment. The FDA breakthrough designation and the European Medicines Agency's adaptive licensing approach, which gets further support from a broad group of stakeholders organized in MIT's NEWDIGS initiative, clearly demonstrate that earlier launches are feasible. It is thus worth taking the risk of systematic experimentation and learning.

The views of industry leaders

In 2014, a team of Strategy& industry experts reached out to leaders in the pharmaceutical industry to better understand their perspectives on this new R&D model. The respondents were all employed by pharmaceutical companies, which totaled about $300 billion in global sales. They represented about one-third of the global pharmaceutical industry. Geographic coverage was well balanced:

- 40 percent U.S.
- 40 percent top five E.U.
- 30 percent other E.U.
- 20 percent Japan
- 15 percent BRIC (Brazil, Russia, India, China)
- 15 percent non-BRIC Asia/Pacific
- 15 percent Middle East, Africa

(Total exceeds 100 percent because many respondents work in two or more regions)

The survey asked respondents to name the main benefits of an RCT/RWE model (see Exhibit 3, next page). Surprisingly, the vast majority (75 percent) said they would value medical benefits most highly. They credited the new model with providing more comprehensive clinical effectiveness data, and with speeding up information about innovative treatment options – both for medical professionals and for patients. Most of the respondents said they would expect earlier patient access to treatments with proven clinical effectiveness. Two out of three respondents envisioned opportunities to make better use of patient-reported outcomes (PROs) in profiling new treatment options. Only 53 percent of the respondents selected economic gains as one of the main benefits, and of the various economic benefits, the most valued was the limiting of development costs that would be placed at risk.

Respondents also identified the most challenging hurdles in the transition to the RCT/RWE model (see Exhibit 4, next page). The current regulatory environment and access to real world data scored highest. Interestingly, only 20 percent of respondents consider potential liability issues as the most challenging hurdle, despite recent market withdrawal cases. This suggests that the recent accelerated approvals and early launches in oncology and orphan diseases are perceived as success stories and that concomitant, focused post- approval commitments are seen as protection from unpleasant surprises caused by early market access.

Given the number of recent publications outlining the challenges associated with analysis of real world evidence, we were surprised at first that only 17 percent of respondents considered the analysis of real world evidence as a primary challenge. However, this finding appears to be in line with the progress in methodology development for statistical analysis of data that is generated outside of randomized controlled trials. As the exhibit shows, participants consider the current regulatory framework and limited access to high-quality real world data as primary challenges. The ability to analyze and interpret external data and internal cultural barriers scored lower.

Another question asked survey participants to consider potential advocates that would support the new model, particularly in the face of real and perceived regulatory concerns (see Exhibit 5, page 18). The pharmaceutical industry is not only one of the most stringently regulated industries but also one of the most risk-averse. Interestingly, patient advocacy groups received the highest score. They are interested in having better treatments launched earlier. Academic health centers, striving for innovative solutions to manage this new kind of “big data,” ranked second. They were followed by payor organizations with their aspiration to deliver cost-effective care.

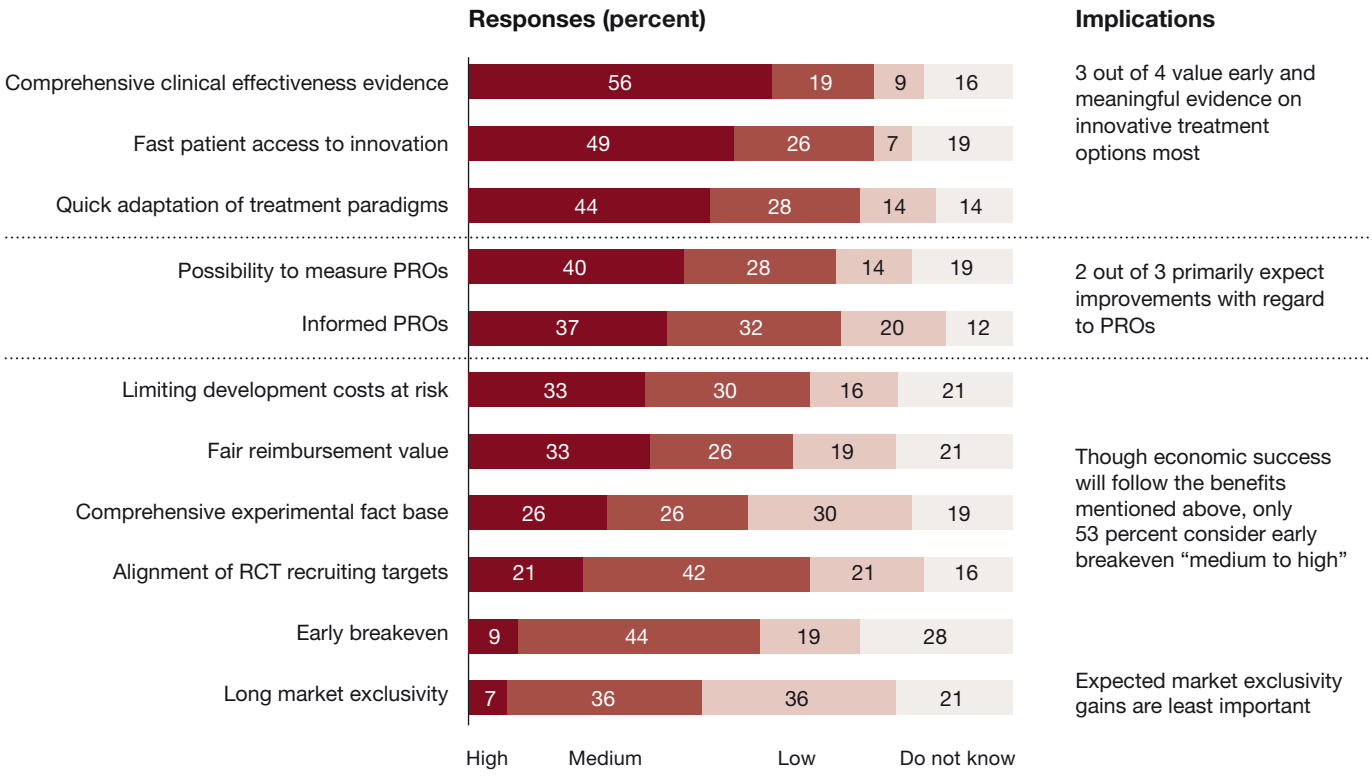
The top score for patient advocacy groups is in line with the general point of view in this field: Medical benefits for patients represent a more persuasive argument than economic benefits for pharmaceutical companies. We believe that the influence of patient advocacy groups will grow in line with the current trends of patients with more medical awareness and more interest in knowing about their care, and stronger customer-centricity in healthcare. Most patient advocacy groups would support earlier access of patients to better treatment options, particularly if they were convinced that the RCT/RWE approach is less risky than the alternative.

Academic health economists would support the shift to the RCT/RWE model because many of them hope to increase the momentum in technical solution definition (making better analyses of ambiguous data). For their part, payors would be interested in more cost-effective care and would value early evidence about the incremental cost-effectiveness improvements of newly launched therapeutic options.

The survey also asked about the best sources for real world data (see Exhibit 6, next page). As expected, payor and provider databases were rated most important. Only a very few respondents attached any importance to social media. Interestingly, pragmatic trials emerged as a third source, albeit with a need to improve data quality.

***Exhibit 3** Main benefits of the new RCT/RWE model (survey results)*

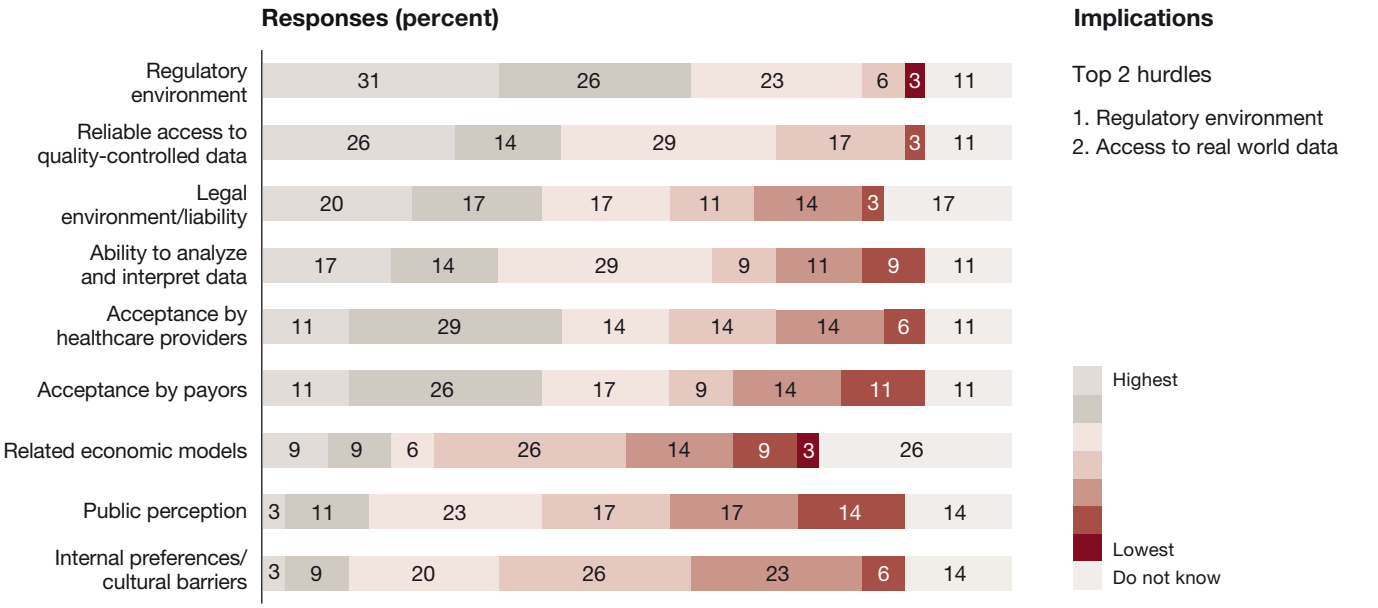
Question: Compared with the traditional RCT model, which would be the main benefits of this model?



Note: Sums may not total 100 due to rounding.
Source: Strategy& survey: R&D Productivity/Real World Evidence, 2014

Exhibit 4 Hurdles to RCT/RWE model adoption (survey results)

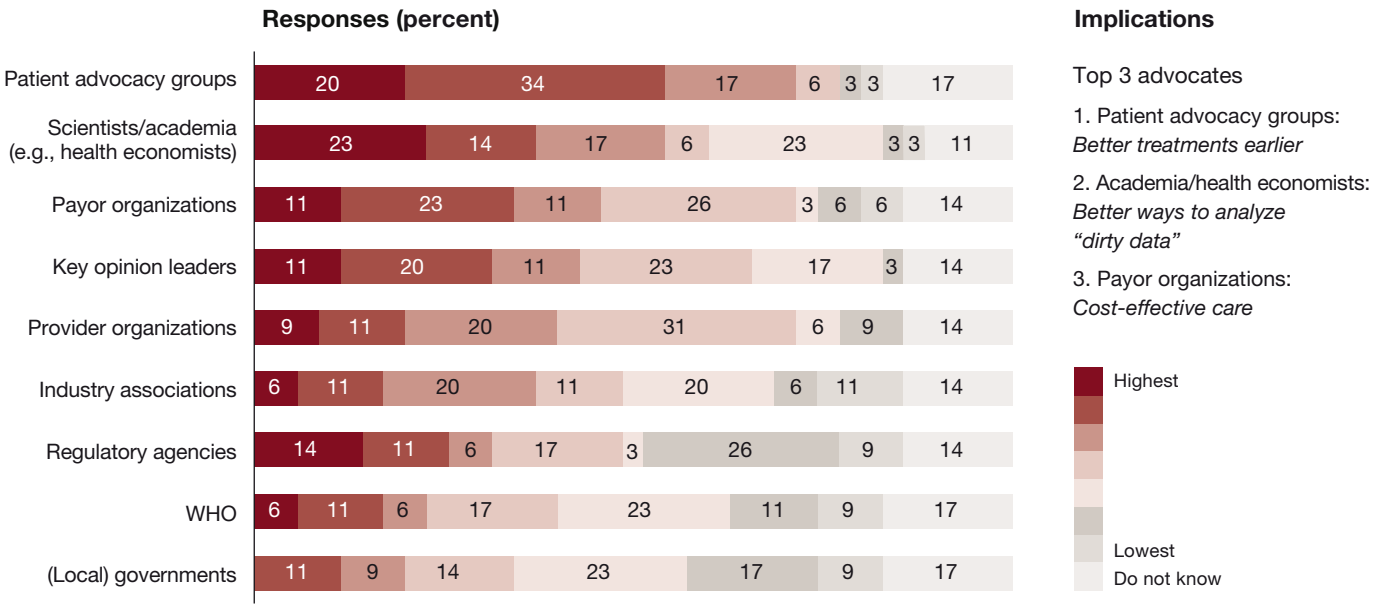
Question: What are the most challenging hurdles in the transition to this model in the U.S. or E.U.?



Note: Sums may not total 100 due to rounding.
Source: Strategy& survey: R&D Productivity/Real World Evidence, 2014

Exhibit 5 Potential advocates for the RCT/RWE model (survey results)

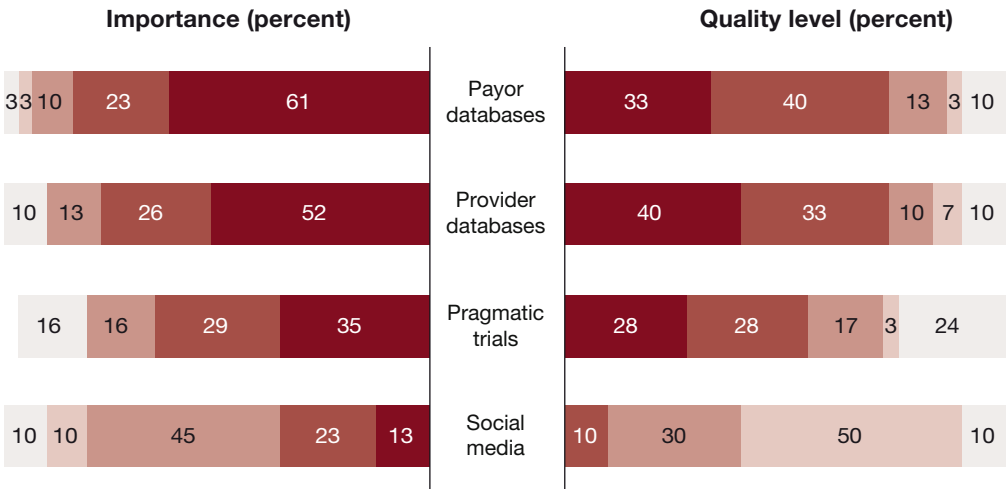
Question: Who would you consider as potential advocates during the transition to this model?



Note: Sums may not total 100 due to rounding.
Source: Strategy& survey: R&D Productivity/Real World Evidence, 2014

Exhibit 6 *Relative importance of data sources (survey results)*

Question: How would you rate the importance of real world data sources and the associated quality levels?



Implications

- Payor and provider databases are the main sources of reliable RWE
- Some also see value in pragmatic trials
- Only very few participants would count on social media as RWE source

Note: Sums may not total 100 due to rounding.
Source: Strategy& survey: R&D Productivity/Real World Evidence, 2014

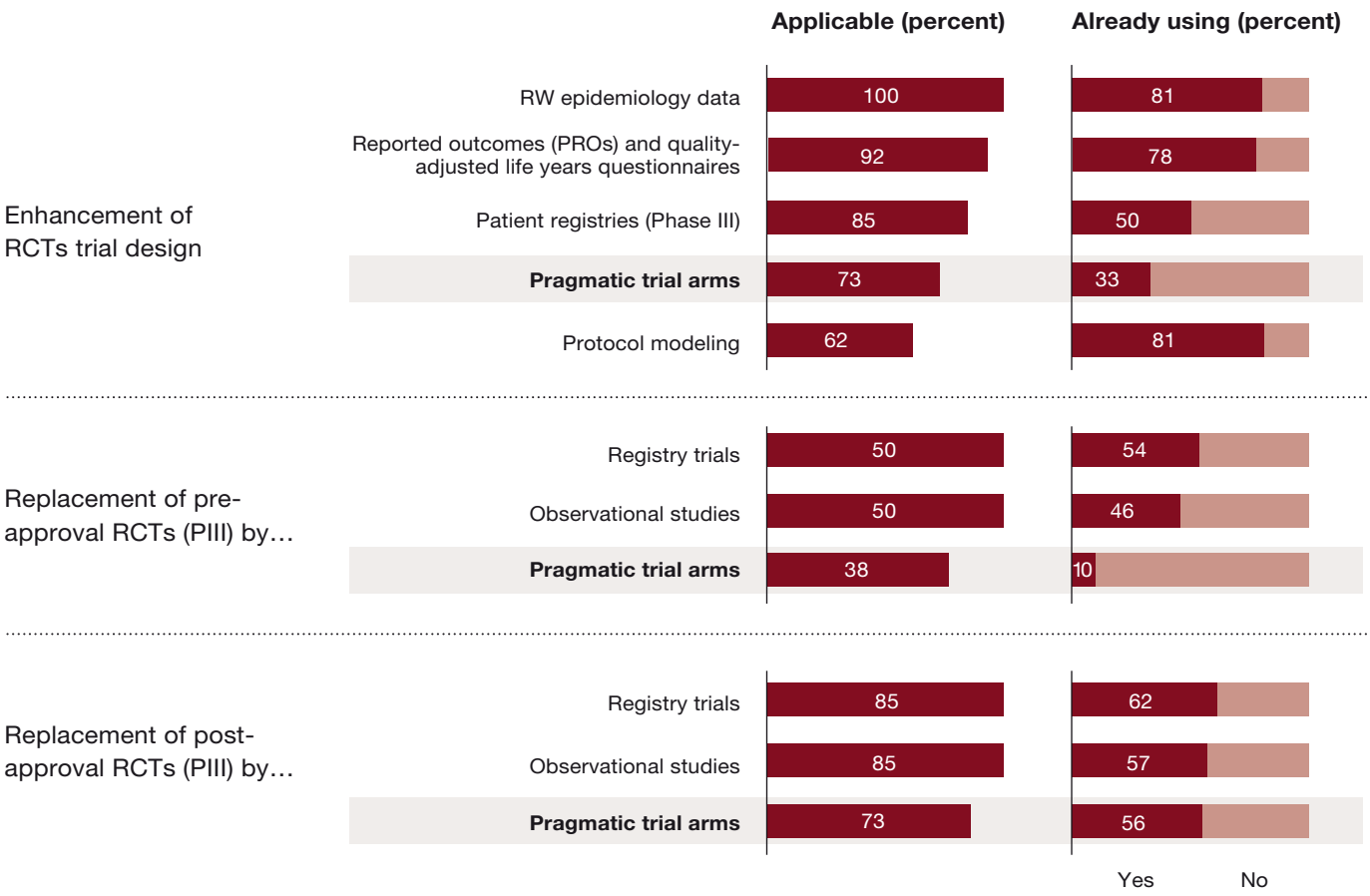
Furthering the adoption of RCT/RWE

The concept of pragmatic trials was introduced 48 years ago, in 1967. But the adoption of these trials has been very limited so far. Leaving the boundaries of well-defined inclusion and exclusion criteria, blinding, and a controlled environment requires analytical capabilities to deal with an uncontrolled environment.

It is no wonder that respondents to our survey identified this opportunity as one of underutilized potential. Our analysis of pragmatic trials registered at the ClinicalTrials.gov website is in line with that perception. In July 2014, we found more than 100 active pragmatic trials on the site's homepage, of which only very few had a pharmaceutical company as sponsor. These trials were mainly focused on neurodegenerative diseases with the challenge to leverage patient- reported outcomes.

Exhibit 7 *Applied uses of RWE (survey results)*

Question: Which specific RWE uses do you find applicable in your organization, and which are you already using?



Source: Strategy& survey: R&D Productivity/Real World Evidence, 2014

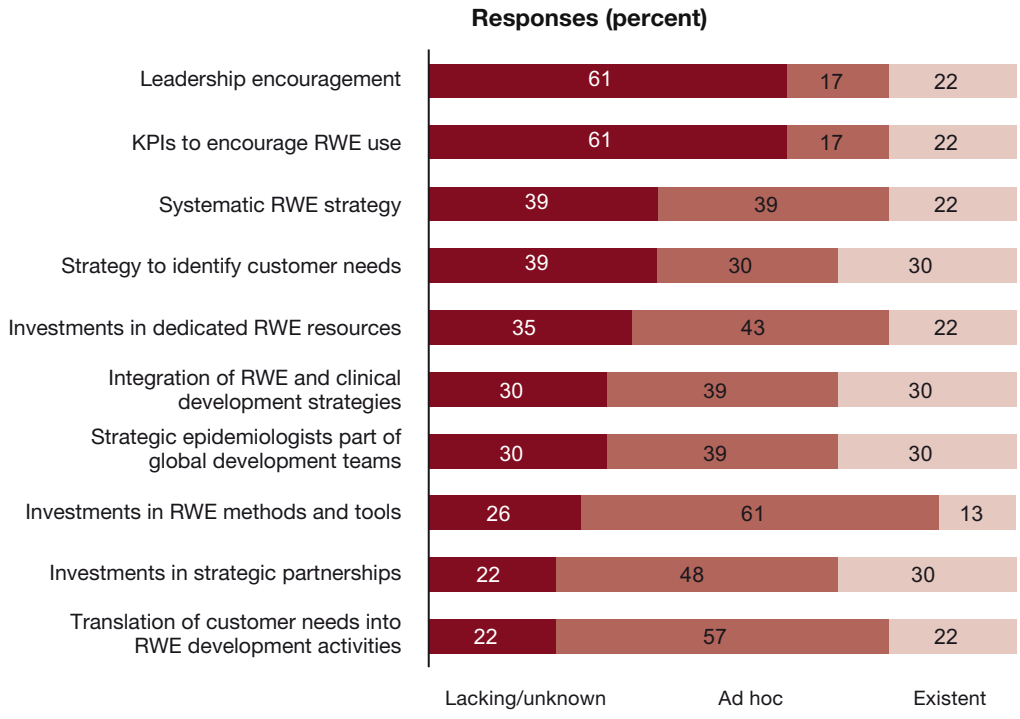
To explore this potential further, our survey asked about emerging use patterns for real world evidence analysis. More specifically, it asked which RWE uses are applicable and/or current practices – during trial design and through the approval process (see Exhibit 7, previous page). The full potential of pragmatic trials is not yet realized, but first approaches with pragmatic trial arms are under way.

With the exceptions of protocol modeling during trial design and pre- approval registry trials, RWE is largely underutilized during clinical evidence generation. In particular, the potential of pragmatic trials is perceived to be far above the actual use patterns. Though three out of four respondents consider pragmatic trial arms relevant for post-approval evidence generation, only a third consider them relevant for pre-approval evidence generation. The use of pragmatic trial arms currently falls short of its potential in all three segments.

We asked about the underlying root cause for this limited adoption of real world evidence despite clearly perceived benefits and manageable hurdles (see Exhibit 8). Sixty percent of the survey respondents said they experience lack of direction from senior management and absence of meaningful metrics to guide required behavioral change.

***Exhibit 8** Current managerial and organizational support (survey results)*

Question: How are you currently organizing to advance the use of RWE in drug development?



Implications

- Clear direction from senior management required to make it happen
- Buildup of required capabilities and change in behavior need to be tracked by meaningful performance metrics
- First attempts with integration of RWE like pharmacoepidemiological data in clinical development under way

Note: Sums may not total 100 due to rounding.
Source: Strategy& survey: R&D Productivity/Real World Evidence, 2014

Exhibit 9 *Initiatives to increase availability, reliability, and utility of RWE (survey results)*

What are the barriers that have kept you from applying these RWE formats in the past?

- Lack of starting material (much better now) Limited data quality and availability
- Lack of trust (somewhat better now) Limited regulatory acceptance (compared with RCT data) Non-fitting company mind-set
- Lack of capabilities systems (getting better) Lack of internal expertise Lack of resources Lengthy implementation duration

What would be the most important initiatives to increase availability, reliability, and utility of RWE?

- Increased RWE awareness, acceptance, and use patterns in approval and pricing and reimbursement process
- High-profile success stories to show feasibility and acceptance of RWE
- Organizational changes to allocate appropriate number of FTEs to produce high-quality RWE
- Collaborations across stakeholders (e.g., buildup of national registries, joint setting of best practices and standards)
- Standardization of systems, methods, and data (e.g., patient information, lab data, medical history, medication, vital signs)
- Merging various data while effectively protecting IP rights

Source: Strategy& survey: R&D Productivity/Real World Evidence, 2014

In general, respondents identified three top priorities to close the gap between the true potential of RWE and current utilization: (1) clear direction from senior management to leverage the power of RWE; (2) alignment of performance metrics with this direction; and (3) codifying points 1 and 2 in a systematic RWE strategy.

One surprising finding was the low level of RWE capability in pharmaceutical companies. Less than a third of the respondents indicated that their organizations have at least the minimal elements of a real world evidence generation and analysis capability in place. Only 22 percent have a systematic real world evidence strategy, 13 percent invest in required methods and tools, and 30 percent are investing in strategic partnerships to access and analyze real world evidence.

The barriers that hindered leveraging the wealth of real world evidence in the past have mostly been removed. Pharmaceutical companies can benefit at this turning point by generating success stories quickly and communicating them broadly. As shown in Exhibit 9, above, the respondents recognize the possibilities, even when their organizations haven't yet acted to realize them. There is general consensus that the traditional hurdles can be overcome with better data access, a higher level of trust among external and internal stakeholders, and improved capabilities systems, but this is clearly perceived as the beginning of a long journey. Urgently needed now are even higher awareness and acceptance of RWE triggered by some high-profile success stories.

Building an RWE capability

Most of the technological hurdles that keep a more integrated and adaptive evidence development model at bay can be effectively addressed with the RWE strategies and tools available today. The real constraints are governance considerations and the lack of determination by senior leadership to drive the required level of change.

Healthcare reform in the major markets is driving the global industry toward an outcomes-based paradigm. New technological possibilities are democratizing data and putting it into the hands of many new classes of users. This has turned integrated and adaptive evidence development into a make-or-break condition for the pharmaceutical industry. If the industry fails to build the required RWE-based capabilities system, it is at risk of quickly losing control over the value communication around its own drugs – including a potentially significant decline in their use and reimbursement.

How can pharmaceutical companies mitigate this risk and build the required capabilities? We have found two distinct viable approaches. In a top-down approach, senior leadership drives a programmatic capabilities-building and change management effort from the corporate center. This has the advantage of developing proper momentum quickly, but typically comes with a high risk of subsequent failure. There may often be insufficient buy-in at the country level, where the real work of building and delivering the required capabilities needs to occur.

The second approach involves more of a bottom-up perspective. The company chooses a few pilot countries or products to incubate the required capabilities and scales them by creating regional or global centers of excellence to foster them. The bottom-up approach typically starts more slowly, but ensures effective engagement and buy-in from the key people at the country level.

What is the right way for your organization to build the required capabilities? The optimal choice depends on your existing RWE infrastructure and change management routines. The first step is to develop a strategic road map for your transition toward an integrated and adaptive evidence development model – in line with the emerging real world evidence opportunities that exist in the world around you.

Endnotes

1 “Medical Cost Trend: Behind the Numbers 2015,” PwC Health Research Institute, June 2014.

2 “Unleashing Value: The Changing Payment Landscape for the US Pharmaceutical Industry,” PwC Health Research Institute, May 2012.

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