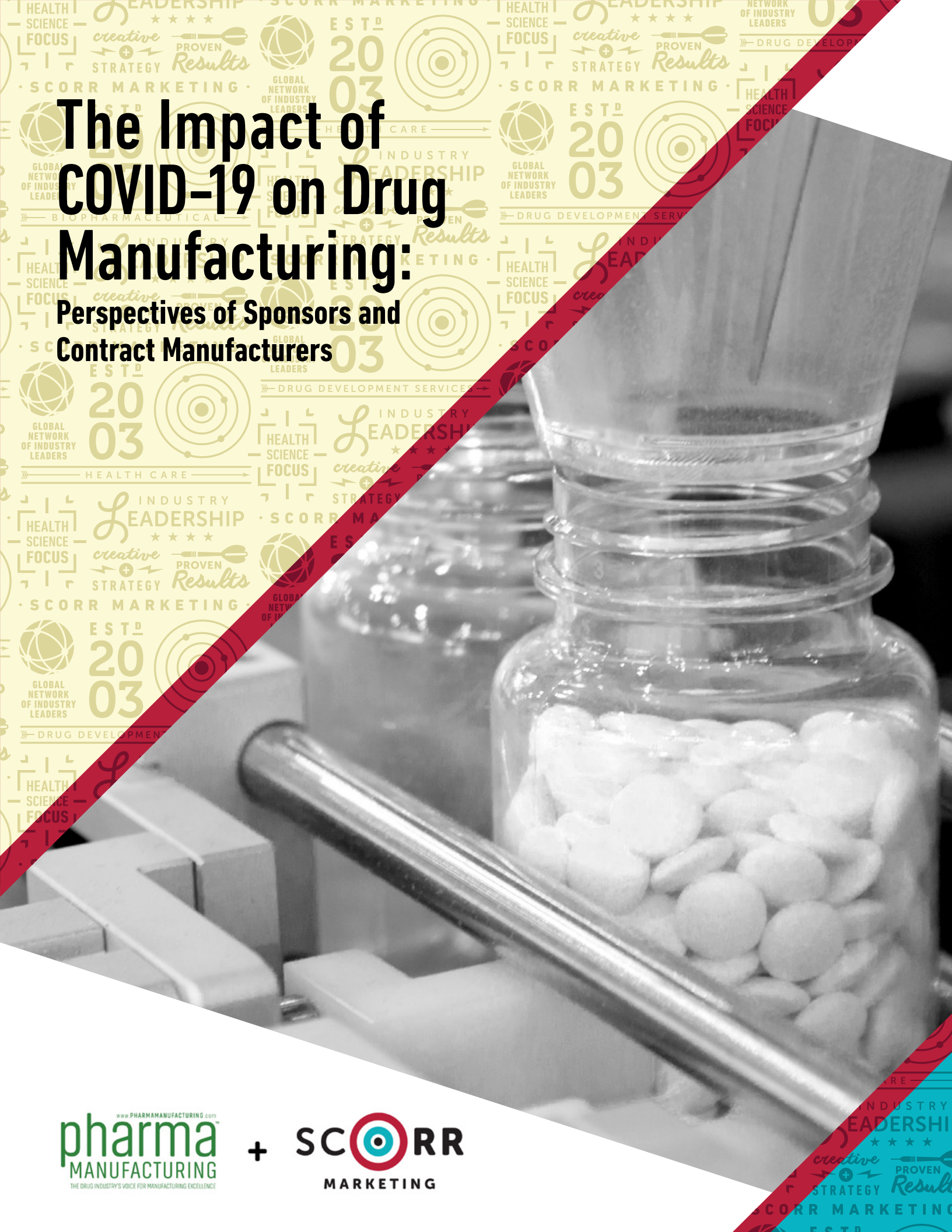


# The Impact of COVID-19 on Drug Manufacturing:

## Perspectives of Sponsors and Contract Manufacturers



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# OBJECTIVE

**SCORR Marketing**, in conjunction with **Pharma Manufacturing**, conducted a survey of life science professionals involved in the outsourcing of or manufacturing of drugs to see how COVID-19 may have affected:

- Levels of industry collaboration
- Processes and service offerings
- Production factors
- Outsourcing tendencies

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# METHODOLOGY

SCORR Marketing developed questions and used a web-based tool to administer the survey. Participants were recruited by email using Pharma Manufacturing's database, SCORR's database, and the PBOA newsletter. Sixty-four responses were collected from March 7, 2021, through April 5, 2021.

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# PRESENTATION OF DATA

Survey results are presented to allow readers to compare the perspectives of either:

- Small-midsize sponsors that outsource manufacturing, large sponsors that manufacture their own drugs, and CMOs/CDMOs
- North American respondents or respondents from outside of North America



# KEY FINDINGS

## Increased Collaboration

- **The Questions:** **Industry collaboration** has increased to support the development and production of COVID-19 vaccines. Has this collaboration spread to non-COVID endeavors?<sup>1</sup> If so, what has been the nature of this collaboration, and will these types of collaboration continue once the pandemic ends?
- **The Answers** — About one-half of the respondents said that their companies have increased collaboration due to COVID-19.
  - Collaboration for CMOs/CDMOs > Large sponsors > Small-midsize sponsors.
  - CMOs/CDMOs primarily increased collaboration with companies that outsource drug manufacturing.
  - Small-midsize sponsors primarily increased collaboration with CMOs/CDMOs.
  - Large sponsors primarily increased collaboration with other industry organizations.
  - For the most part, CMOs/CDMOs and small-midsize sponsors expect that these collaborations will continue post-pandemic.
  - Collaboration is more widespread among North American companies than companies outside of North America.

## Work/Process Changes

- **The Questions:** COVID-19 forced **pharmaceutical operations** to change in terms of risk management, agility, workforce management, and supply chains.<sup>2</sup> Exactly which processes have changed, and will these changes continue once the pandemic is over?
- **The Answers** — More than one-half of respondents said their companies increased utilization of virtual visits or audits and working remotely. Less than one-half of respondents said their companies implemented shorter or more flexible timelines or streamlined processes.
  - Small-midsize sponsors and CMOs/CDMOs were more apt to have increased working remotely.
  - North American companies were more likely to engage in work/process changes than were companies in the rest of the world.
  - Each company type is inclined to believe that, post-pandemic, the greater utilization of virtual visits and audits will continue.
  - Small-midsize sponsors are the most bullish on the continued emphasis of remote work.

## Required and Impacted CMO/CDMO Services

- **The Questions:** What services do sponsors look for from CMOs/CDMOs (and what services do CMOs/CDMOs offer)? Were these service offerings impacted due to COVID-19? And to the extent that they were, will they continue to be impacted post-COVID-19?
- **The Answers** — Small-midsize sponsors that outsource manufacturing require much more in services from their CMOs/CDMOs than do large sponsors that primarily manufacture their own drugs.
  - The services that CMOs/CDMOs believe sponsors want offered more closely mirrors what small-midsize sponsors want than what large sponsors want.
  - Most CMOs/CDMOs do not believe any of their service offerings were significantly impacted due to COVID-19.



# KEY FINDINGS

## Supply Chain and Lack of Capacity

- **The Questions:** Supply chain issues and lack of capacity were issues exacerbated by COVID-19.<sup>3</sup> Which production factors were impacted the most by COVID-19, which ones are most important to address, and what is the likelihood of addressing each post-pandemic?
- **The Answers** — Both North American and non-North American respondents prioritize addressing the issue of low inventory or availability of raw materials.
  - Small-midsize sponsors are primarily concerned with onshoring of raw materials sourcing (i.e., raw materials available in country of drug manufacture).
  - Large sponsors care most about diversification of raw materials sourcing (i.e., raw materials from different countries).
  - CMOs/CDMOs view a lack of capacity as the most urgent issue to be addressed.
  - Respondents in North America are more optimistic about addressing each production factor than are those outside of North America.

## Marketing Activities

Both large and small-midsize sponsors made greater use of webinars/podcasts and social media as a result of COVID-19, with large sponsors especially increasing their marketing activity with these tactics.

## Outsourcing Partnerships

- **The Questions:** Will outsourcing to CMOs/CDMOs increase? And will the number of CMOs/CDMOs that outsourcers use increase?
- **The Answers** — Small-midsize sponsors, large sponsors, and CMOs/CDMOs each anticipate there will be more outsourcing to CMOs/CDMOs three years from now, with CMOs/CDMOs being the most optimistic.
  - Small-midsize sponsors report working with more CMOs/CDMOs than do large sponsors.
  - North American companies work with more contract manufacturers than do companies outside of North America.
  - CMOs/CDMOs view a lack of capacity as the most urgent issue to be addressed.
  - Small-midsize sponsors anticipate the number of contract manufacturers they will work with will increase over the next three years.

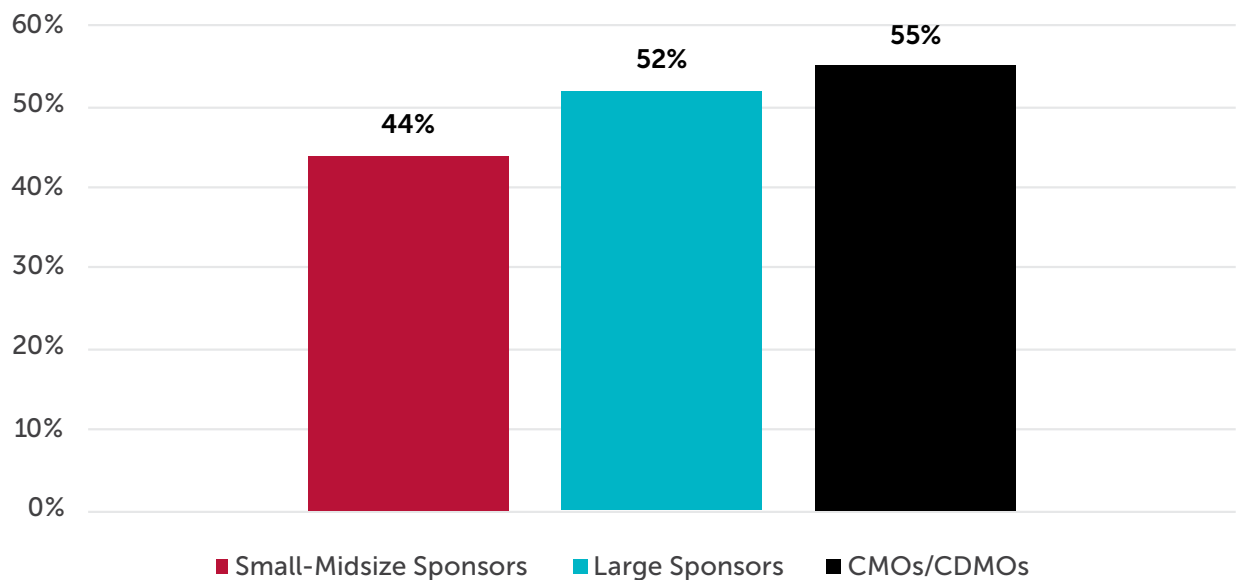


# INCREASED COLLABORATION



“Has your organization increased collaboration with other types of companies because of COVID-19?”

- CMOs/CDMOs (55%) were more likely than sponsors to have increased their collaboration with other companies because of COVID-19.
- Large sponsors (52%) were slightly more likely than small-midsize sponsors (44%) to have increased such collaboration.

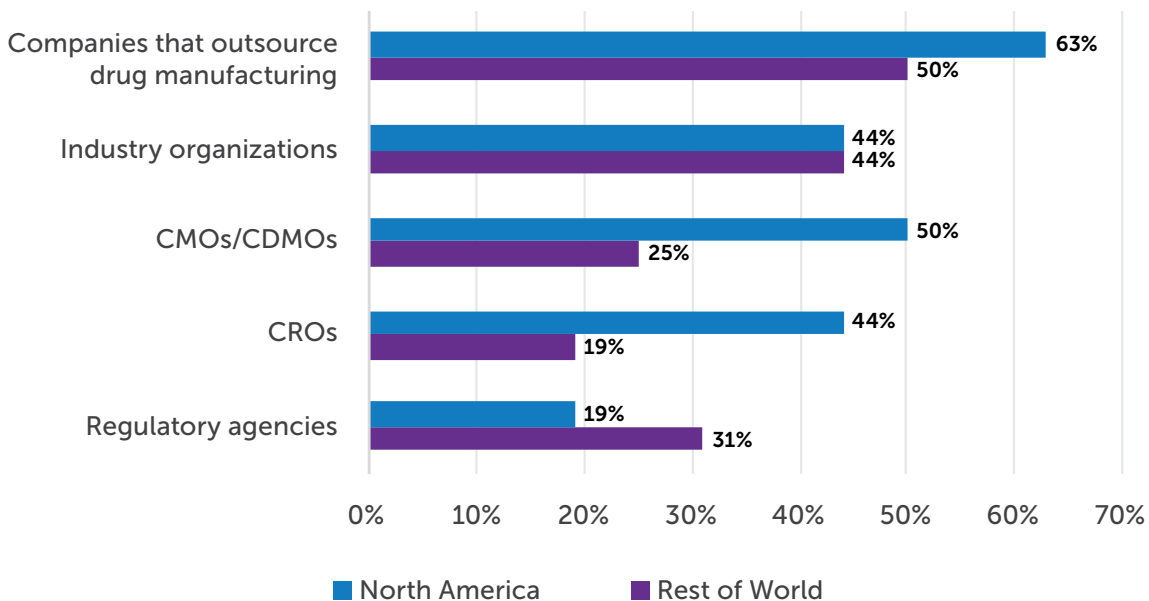
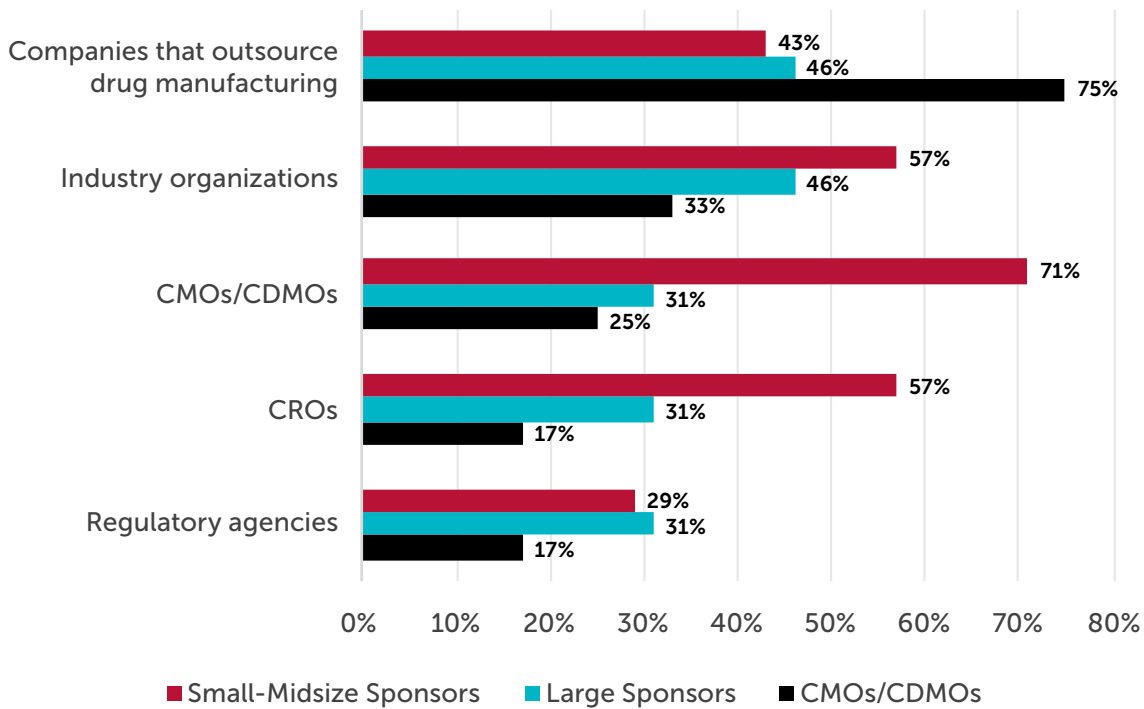


# INCREASED COLLABORATION



“Which types of companies did your organization increase collaboration with?”

- Small-midsize sponsors increased their collaboration primarily with CMOs/CDMOs (71%).
- CMOs/CDMOs increased their collaboration with companies that outsource (75%).
- For three of the five types of group collaborations, companies based in North America increased their level of collaboration more than companies based outside of North America.

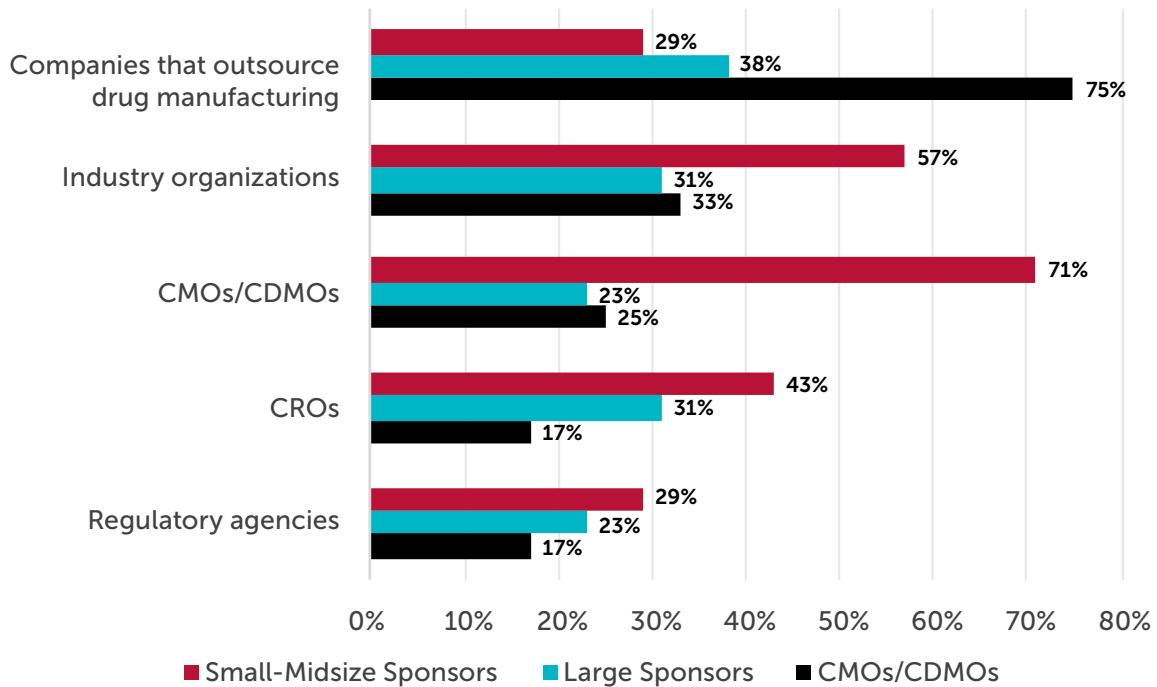


# INCREASED COLLABORATION



“Post-pandemic, with which types of companies will increased collaboration continue?”

- Post-pandemic collaboration for small-midsize sponsors is higher than for large sponsors in four of the five company types of group collaboration. This is especially true when considering collaborations with CMOs/CDMOs (71% for small-midsize sponsors, 23% for large sponsors).
- Large sponsors (38%) are more inclined than are small-midsize sponsors (29%) to collaborate with other companies that outsource drug manufacturing.



“It is encouraging to see an interest in post-pandemic collaboration. What the pharma industry has achieved during the pandemic is truly remarkable and the backbone of these accomplishments has been collaboration. We saw a deluge of high-profile vaccine-related partnerships between pharma companies, CDMOs, and the government – continuing this will be an important part of future pandemic preparedness.” – Karen Langhauser, Pharma Manufacturing



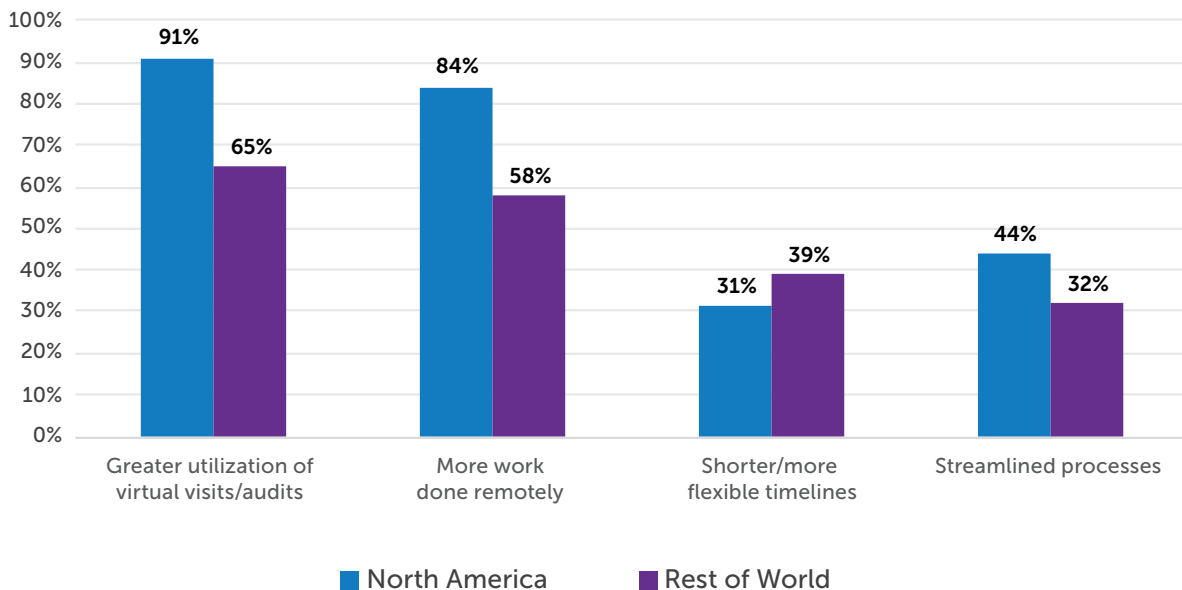
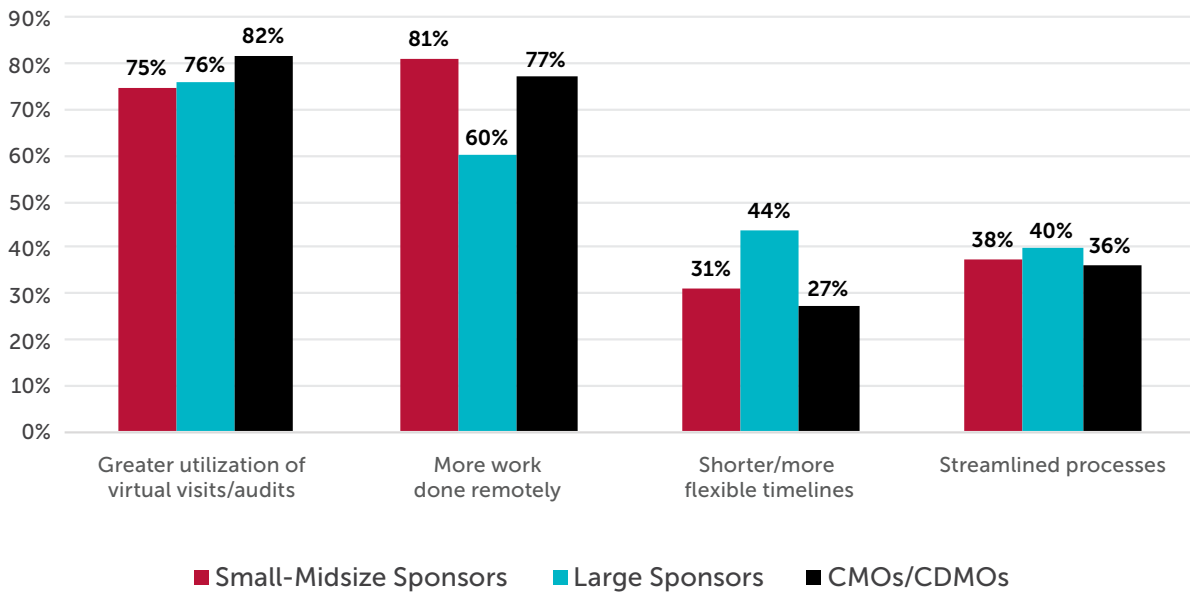


# WORK/PROCESS CHANGES



"Which of the following work/process changes occurred at your company because of COVID-19?"

- Small-midsize sponsors (81%) are more likely than large sponsors (60%) to have increased remote working and are less likely to have incorporated shorter/more flexible timelines.
- Ninety-one percent of North American organizations increased utilization of virtual visits and audits while just 65% of their non-North American counterparts did.

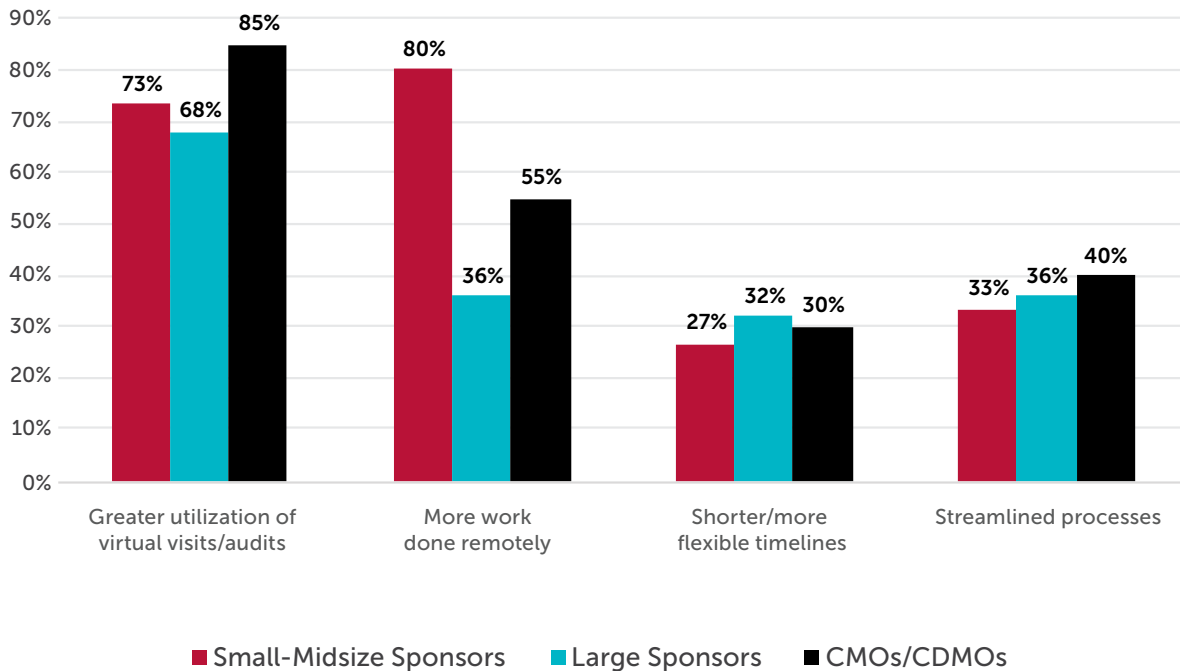


# WORK/PROCESS CHANGES



“Post-pandemic, which of the following changes will continue at your company?”

- There is belief across groups that increased utilization of virtual visits/audits and remote work is more likely to continue than shorter timelines or streamlined processes.
- Small-midsize sponsors (80%) are more than twice as likely as large sponsors (36%) to believe that, post-pandemic, their increased utilization of remote work will continue.



“Across the spectrum, our CMO/CDMO members believe that virtual technology for visits and audits is here to stay. Now that the advantages of virtual technologies and document sharing have been made clear, we think that customers will adopt a hybrid approach, post-pandemic.”  
— Gil Roth, [Pharma & Biopharma Outsourcing Association](#)

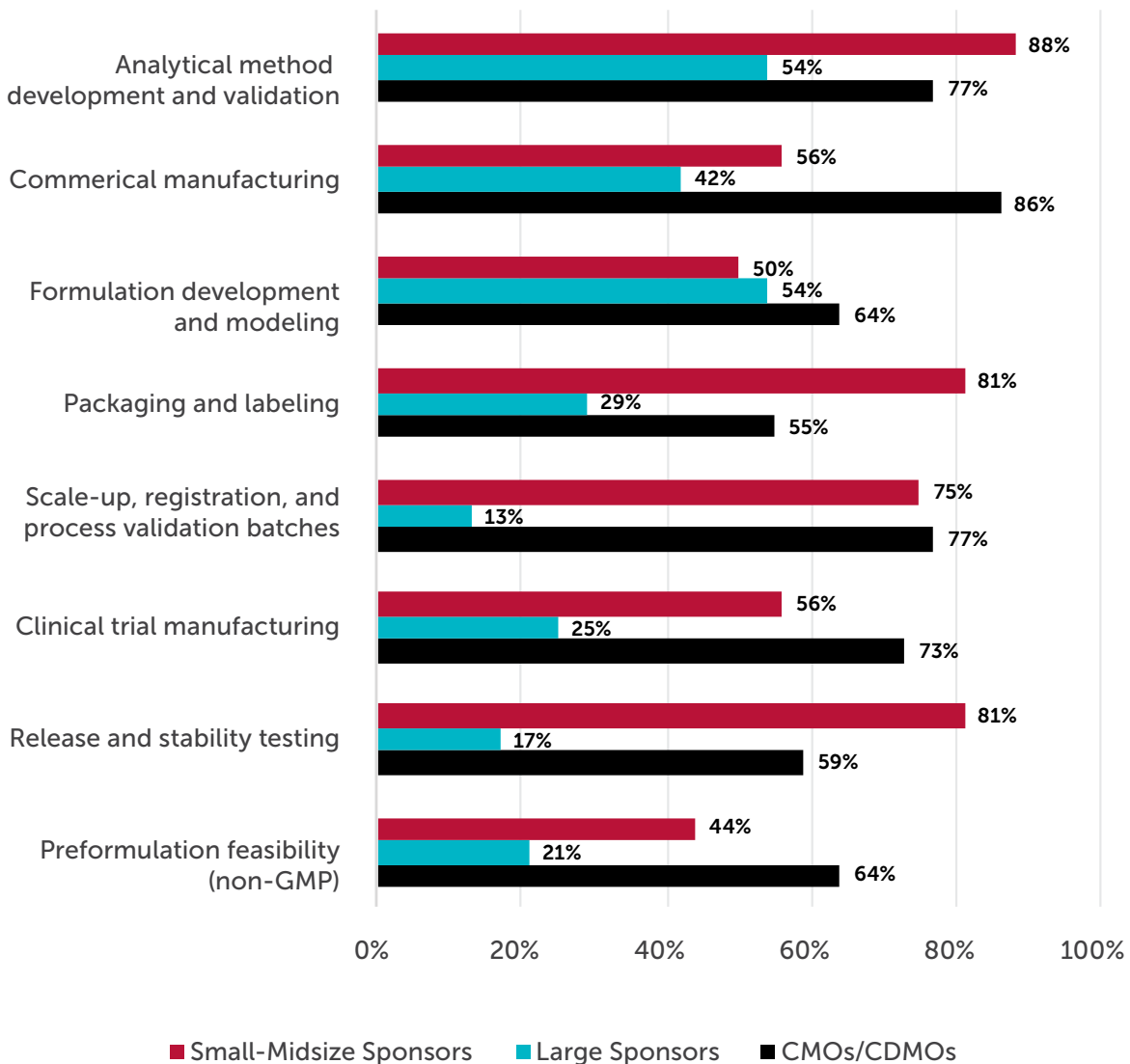


# REQUIRED AND IMPACTED CMO/CDMO SERVICES



“Which of the following services do you require from a CMO/CDMO (or do you offer as a CMO/CDMO)?”

- Small-midsize sponsors require much more in services from their CMOs/CDMOs than do large sponsors.
- Small-midsize sponsors (88%) are especially inclined to require analytical method development/validation services.
- CMOs/CDMOs (86%) are most likely to believe that outsourcers need commercial manufacturing services.



“It is not surprising that the vast majority of small-midsize sponsors indicate the ongoing need for analytical method development/validation services as the lack of these types of services from CDMOs has historically been a challenge for drug sponsors.”

— Karen Langhauser, [Pharma Manufacturing](#)

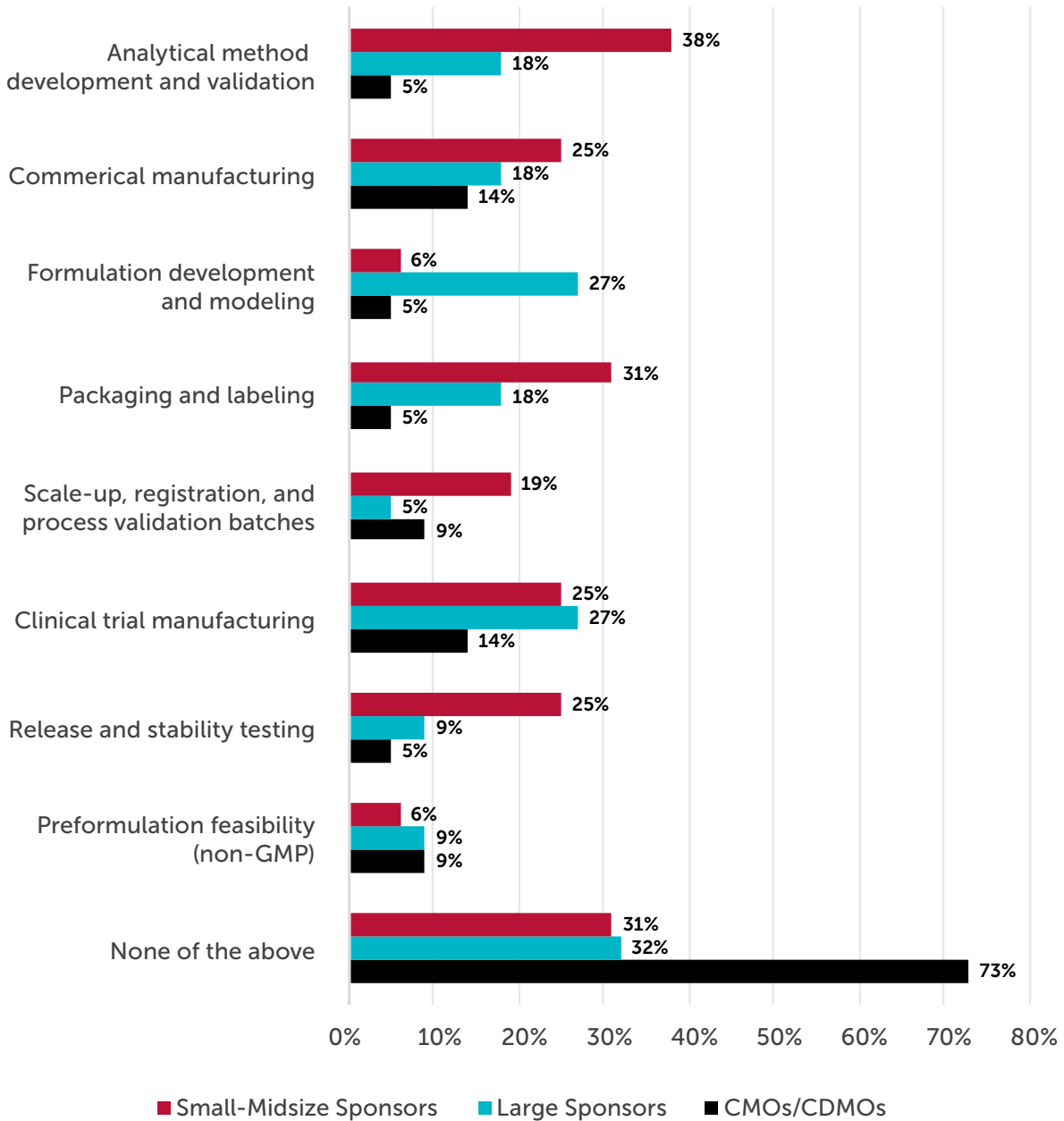


# REQUIRED AND IMPACTED CMO/CDMO SERVICES



“Which CMO/CDMO services were significantly impacted because of COVID-19?”

- For small-midsize sponsors, analytical method development and validation (38%) is the service impacted the most due to COVID-19.
- About three-fourths of CMOs/CDMOs (73%) chose “none of the above.”

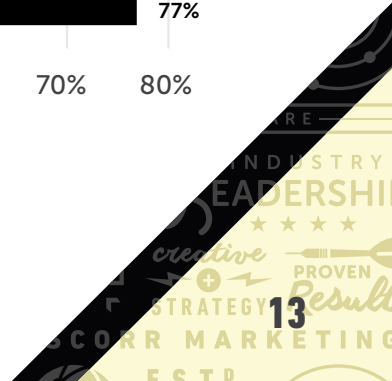
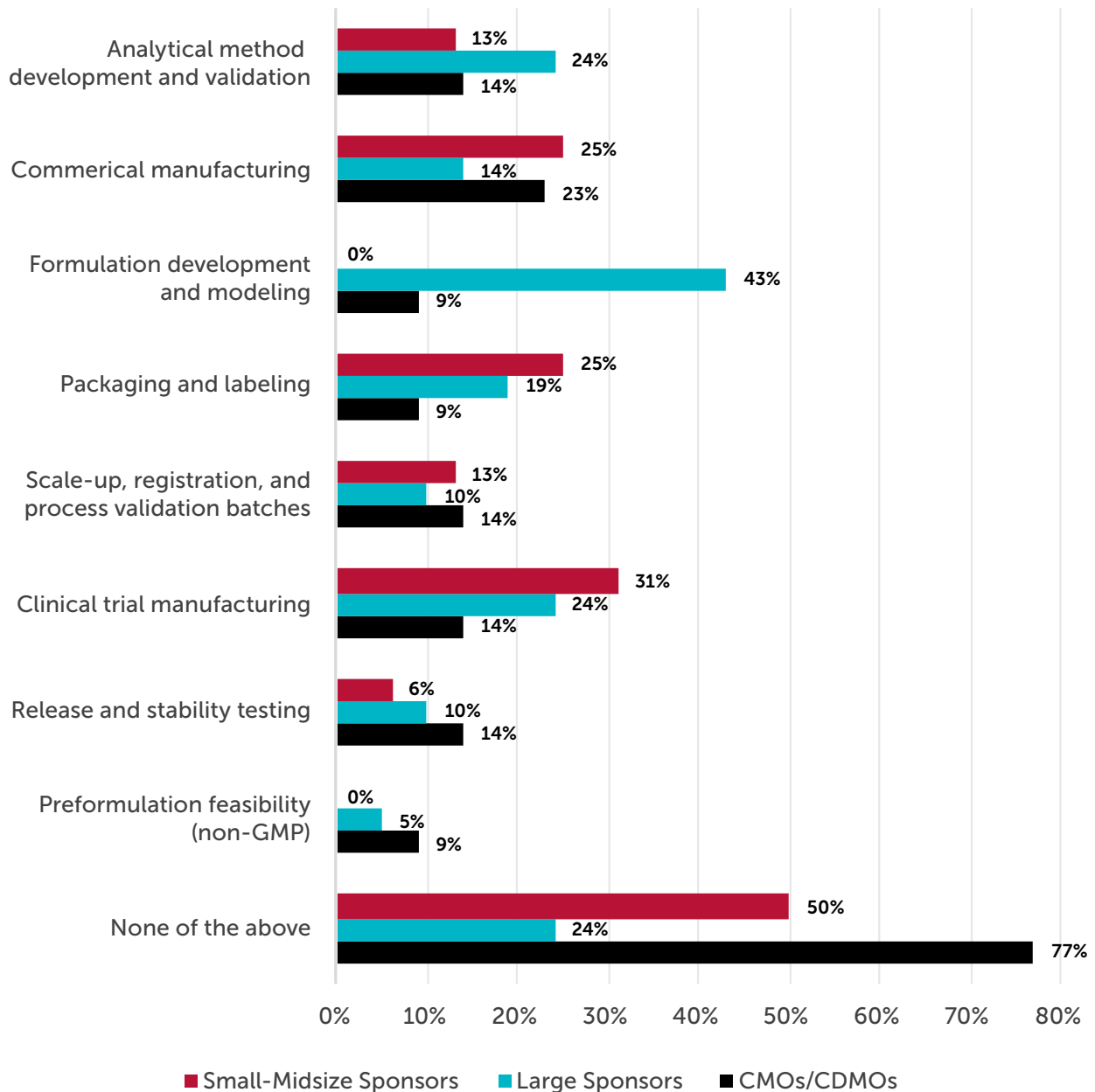


# REQUIRED AND IMPACTED CMO/CDMO SERVICES



**“Post-pandemic, which CMO/CDMO services do you think will permanently change due to COVID-19?”**

- Large sponsors identified formulation development and modeling (43%) as the service whose changes are most likely to be permanent.
- One-half of small-midsize sponsors (50%) do not believe that changes in any of the stated services will continue post-pandemic.
- About three-fourths of CMOs/CDMOs (77%) do not believe that changes in any of the stated services will continue post-pandemic.

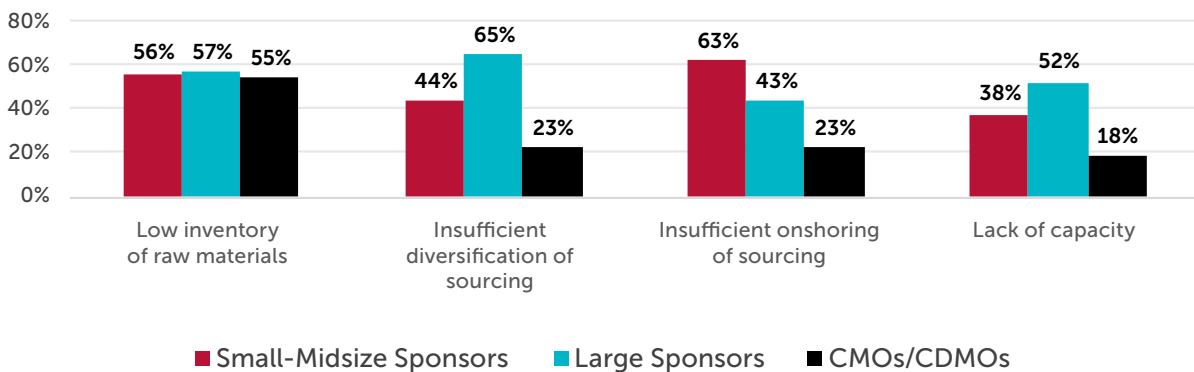


# SUPPLY CHAIN ISSUES AND LACK OF CAPACITY

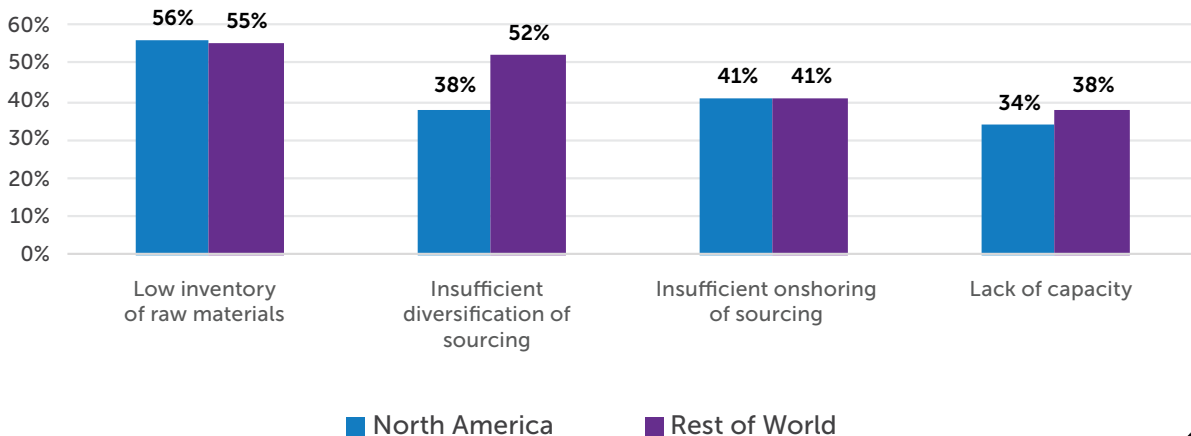


“Which of the following do you believe impacted your CMO or CDMO (or your company)?”

- Small-midsize sponsors are most apt to identify insufficient onshoring of sourcing (63%) as the production factor most impacted by COVID-19.
- Large sponsors are most likely to say insufficient diversification of sourcing (65%) is the production factor especially affected by COVID-19.
- Both North American (56%) and non-North American (55%) respondents consider low inventory or availability of raw materials to be the most impacted production factor.



“The unprecedented increase in demand for certain raw materials and key supplies, coupled with short-term disruptions from certain regions due to COVID outbreaks, export bans, and government intervention into supply chains, may create challenges for some products. It will certainly depend on the type of product, as sterile injectable capacity, for example, is dominated by the need to add billions of doses to global supply. To date our members haven’t reported production shortfalls related to the pandemic.”  
 — Gil Roth, [Pharma & Biopharma Outsourcing Association](#)

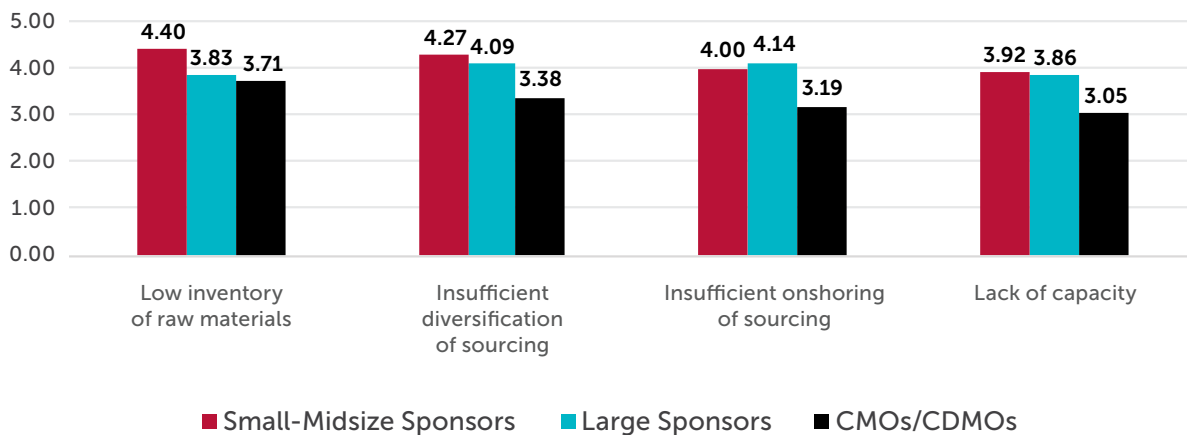


# SUPPLY CHAIN ISSUES AND LACK OF CAPACITY

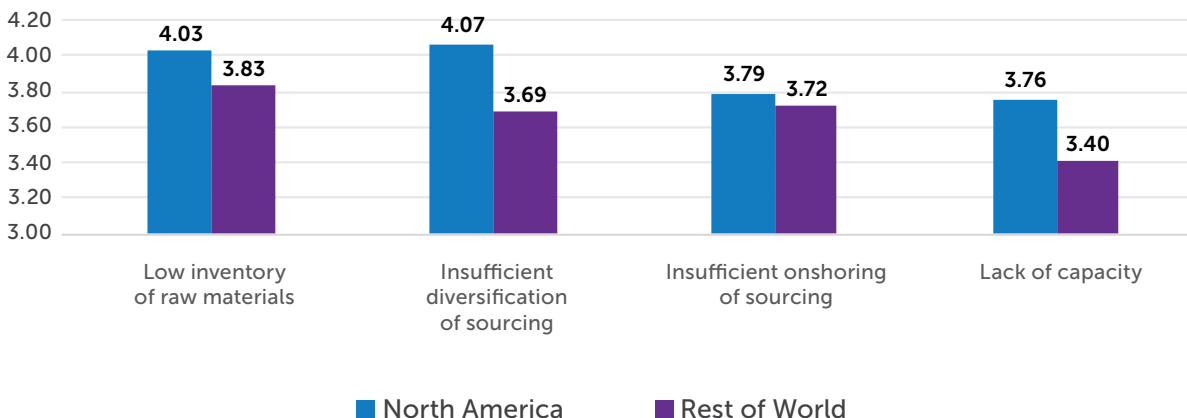


“On a scale of 1-5 with 5 being most important, how important is it for your CMO or CDMO (or your company) to address each of the following?”

- Small-midsize sponsors elevate the importance of addressing low inventory or availability of raw materials (4.40 out of 5.00) above other factors.
- Large sponsors prioritize the importance of addressing insufficient onshoring of sourcing of raw materials (4.14) above other factors.
- North American respondents place a higher importance than do non-North American respondents in addressing each of the four factors.



These results illustrate the growing and often conflicting challenges being faced by CDMOs as they push to expand capacity in post-COVID world. “Diversification of sourcing” and “insufficient onshoring of sources” are two goals that in many scenarios conflict with each other. Additionally, addressing raw materials supply issues is made more challenging if sourcing is to be completely onshored.”  
 — Karen Langhauser, [Pharma Manufacturing](#)

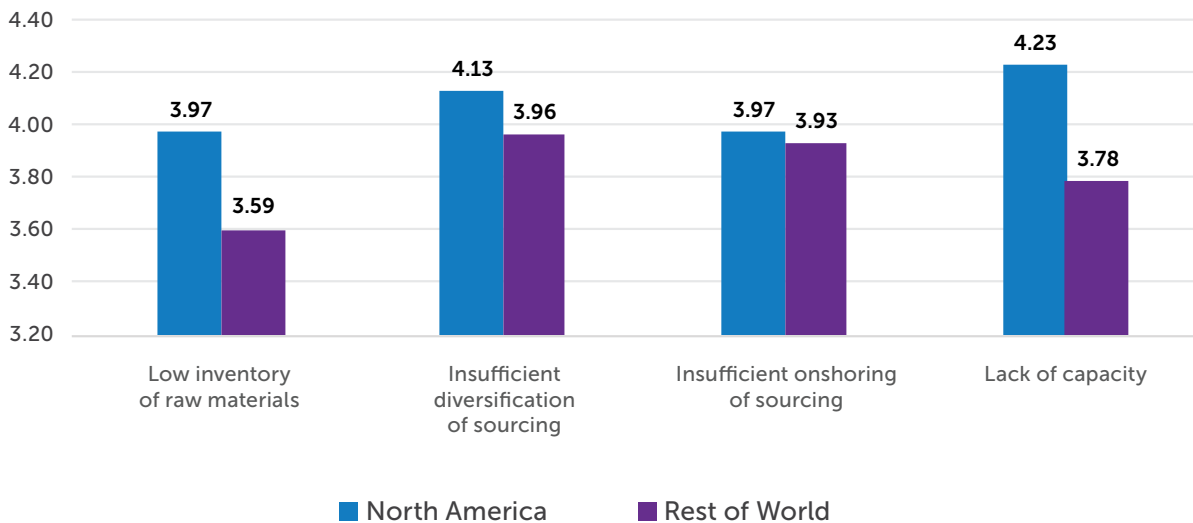
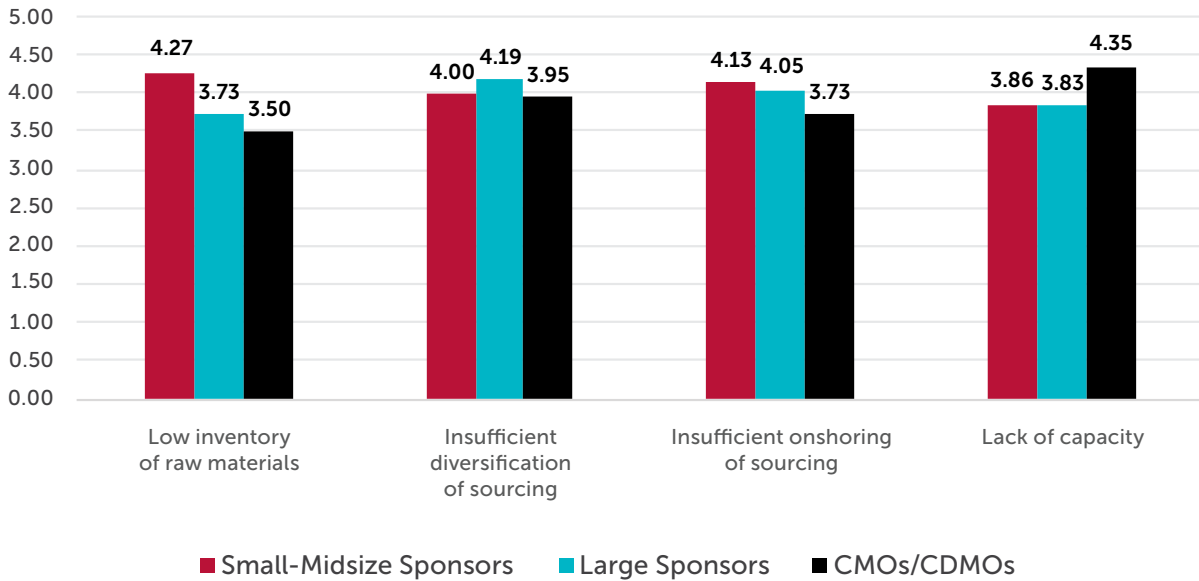


# SUPPLY CHAIN ISSUES AND LACK OF CAPACITY



“Post-pandemic, on a scale of 1-5 with 5 being the most likely, how likely will the CMO/CDMO industry do each of the following?”

- CMOs/CDMOs believe that lack of capacity (4.35 out of 5.00) will be the factor most likely addressed post-pandemic.
- North American respondents (4.23) also see lack of capacity as the factor most likely to be addressed post-pandemic.



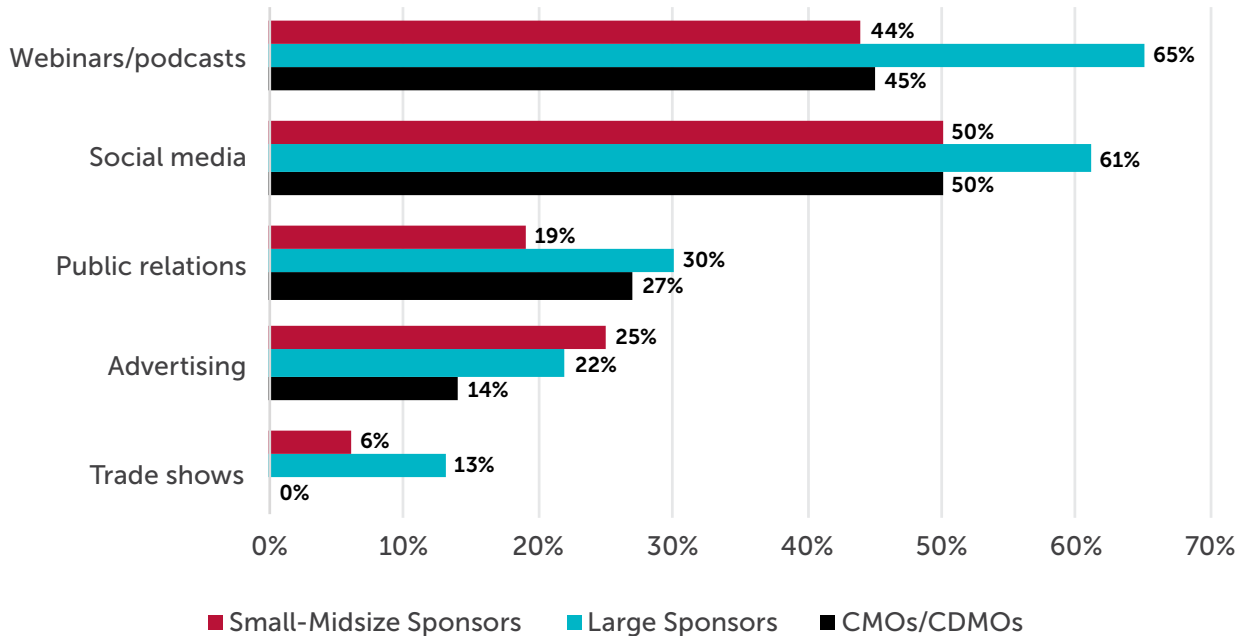


# MARKETING ACTIVITIES

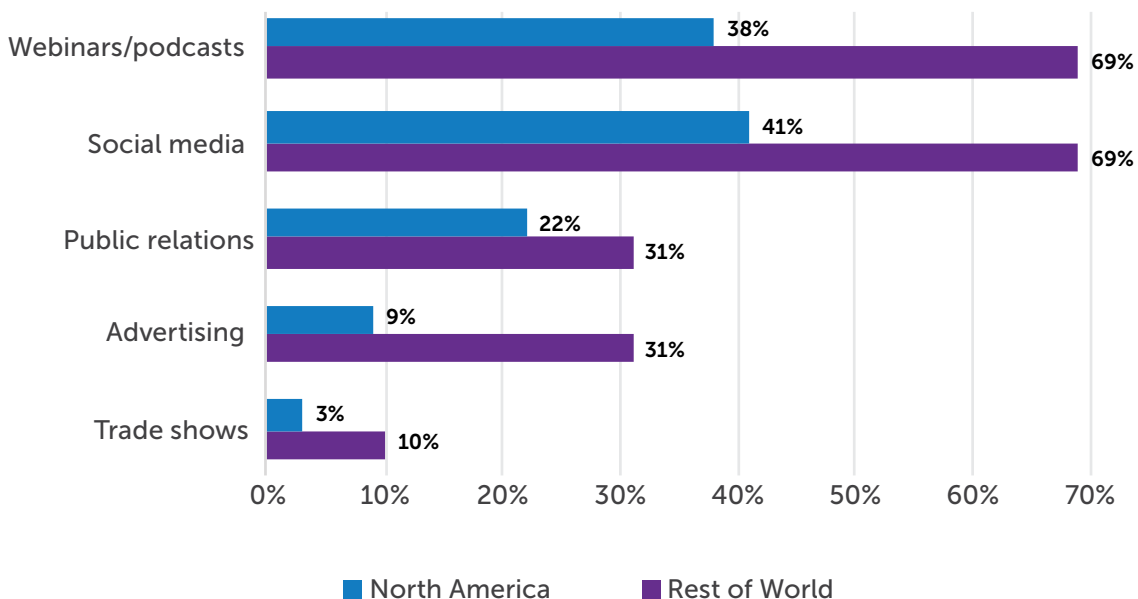


“How did COVID-19 impact each of the following marketing activities for your company?”

- While increased utilization of webinars/podcasts and social media was universal, this was especially true of large sponsors: 65% of them increased webinars/podcasts and 61% increased social media activity.
- Increases in webinars/podcasts and social media, while high in North America, were even higher outside of North America.



These findings are consistent with what was reported in [SCORR's 2020 Marketing Trends in Health Sciences Services Companies](#) survey report where COVID-19 resulted in the acceleration of digital marketing tactics such as webinars, podcasts, and social media.<sup>5</sup> — Roger Boutin, [SCORR Marketing](#)

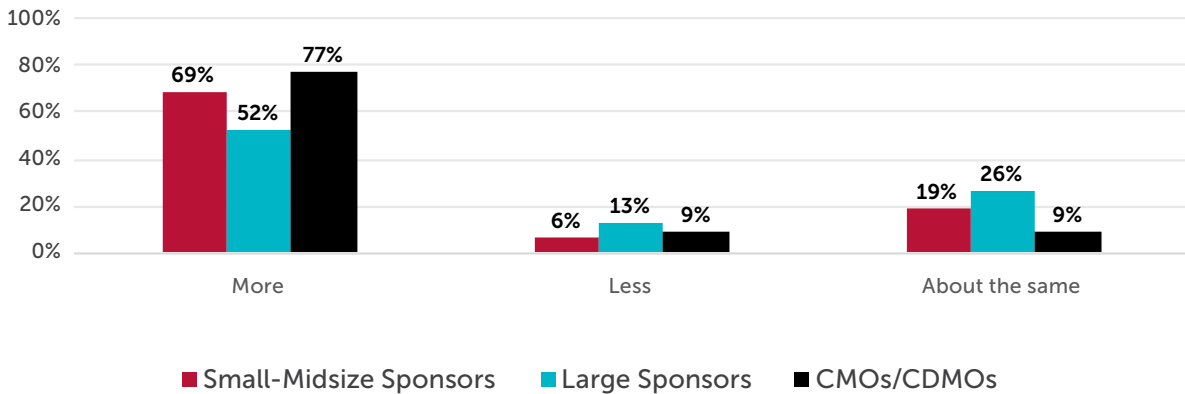


# OUTSOURCING PARTNERSHIPS



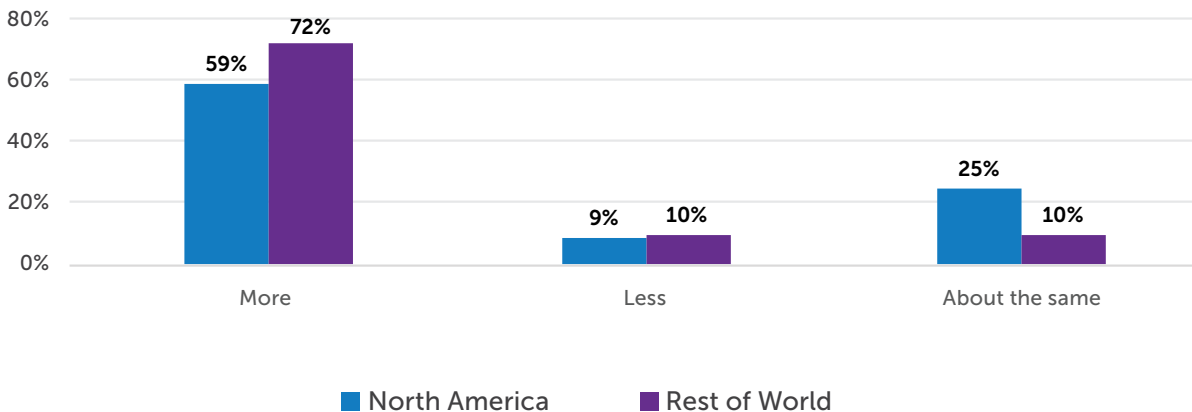
“Three years from now, do you anticipate outsourcing to CMOs/CDMOs will be more, less, or about the same?”

- CMOs/CDMOs are the most optimistic regarding future outsourcing; 77% believe outsourcing to them will increase three years from now.
- The rest of the world (72%) is more likely than North America (59%) to anticipate more outsourcing to contract manufacturers.



“The coordinated response between drug companies and CMO/CDMOs during the pandemic shows that the outsourcing model is key to flexibly expanding capacity and maintaining robust supply chains. Further, as more new modalities of drugs are developed, CMO/CDMOs will be key to enabling startup companies to advance their candidates without burning capital on facilities.”

— Gil Roth, Pharma & [Biopharma Outsourcing Association](#)

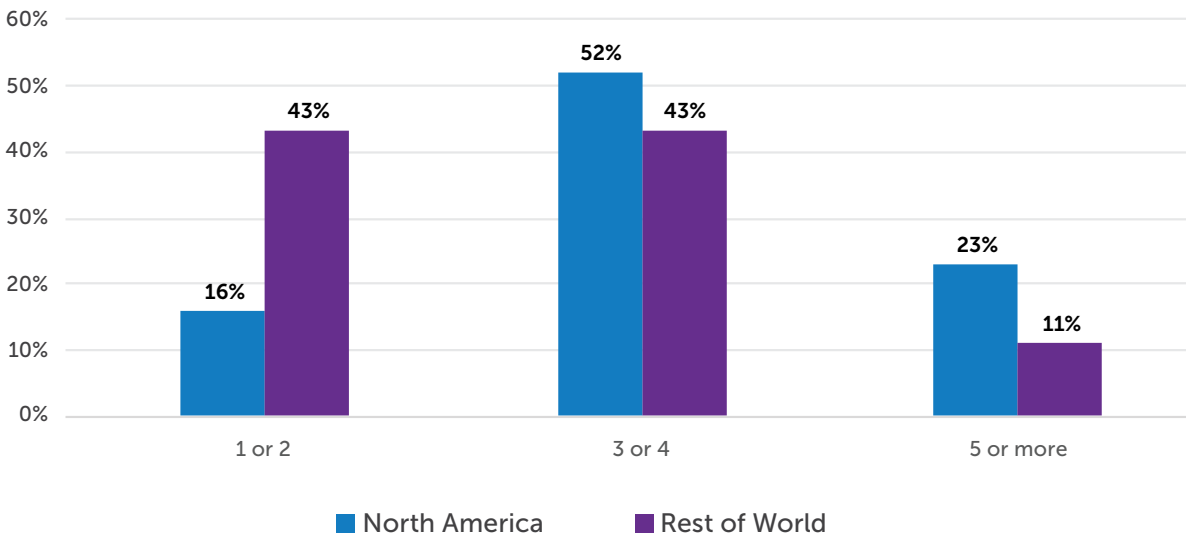
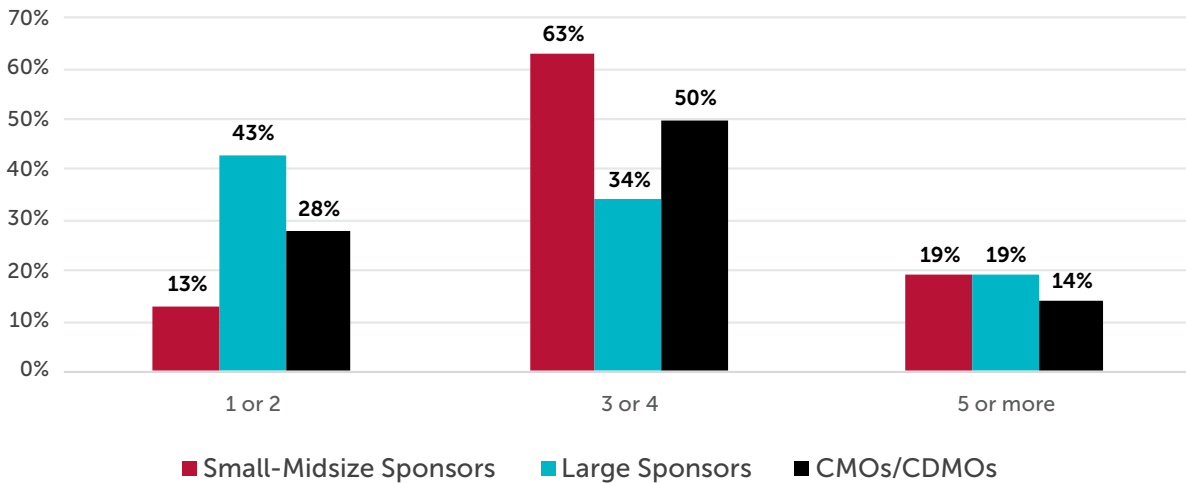


# OUTSOURCING PARTNERSHIPS



**"How many CMOs/CDMOs do you currently work with/do you believe sponsors typically work with?"**

- Small-midsize sponsors work with more CMOs/CDMOs than do large sponsors. Sixty-three percent of them work with 3-4 CMOs/CDMOs, while 43% of large sponsors work with 1-2 CMOs/CDMOs.
- CMO/CDMO's estimates on how many of them sponsors work with are in between what small-midsize and large sponsors report.
- North American companies work with more contract manufacturers than do non-North American companies.

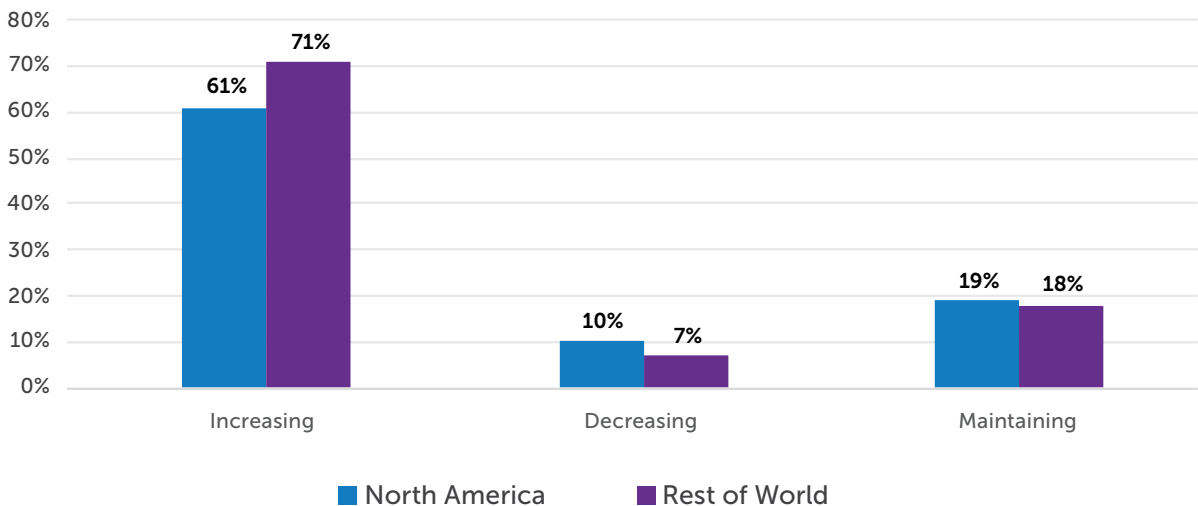
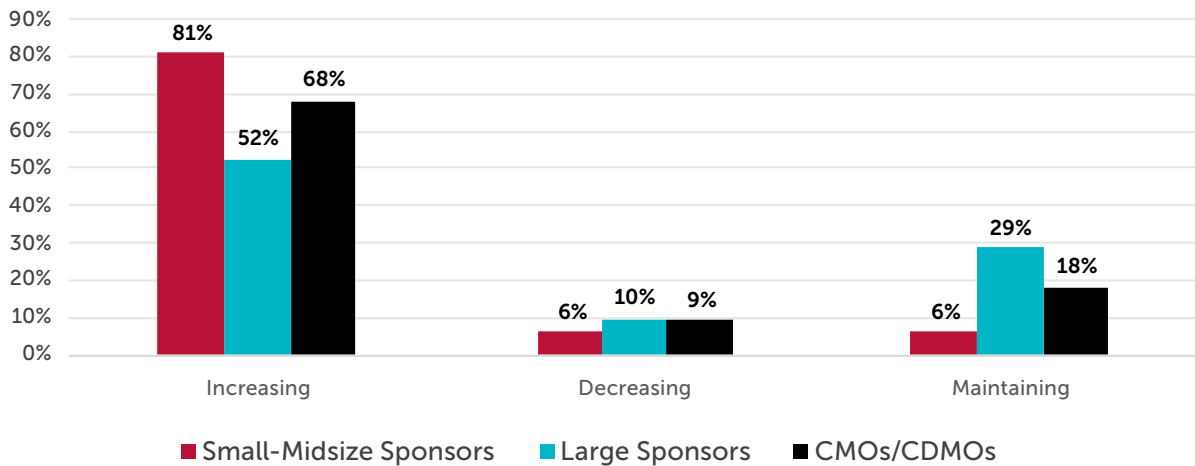


# OUTSOURCING PARTNERSHIPS



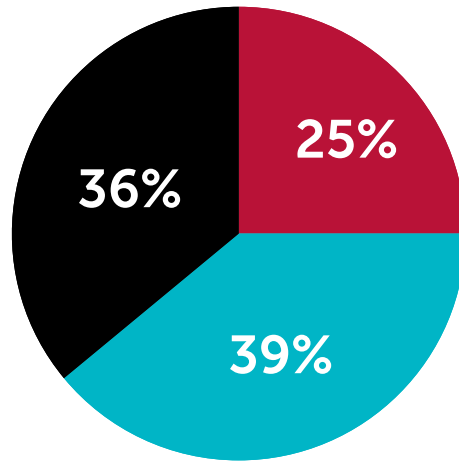
"Three years from now, do you believe the number of outsourcing partners sponsors have will increase/decrease/be maintained?"

- Each group anticipates higher numbers of outsourcing CMO/CDMO partners three years from now. This is especially true for small-midsize sponsors (81%).
- Both non-North American (71%) and North American (61%) respondents anticipate increases in the numbers of outsourcing partners used.



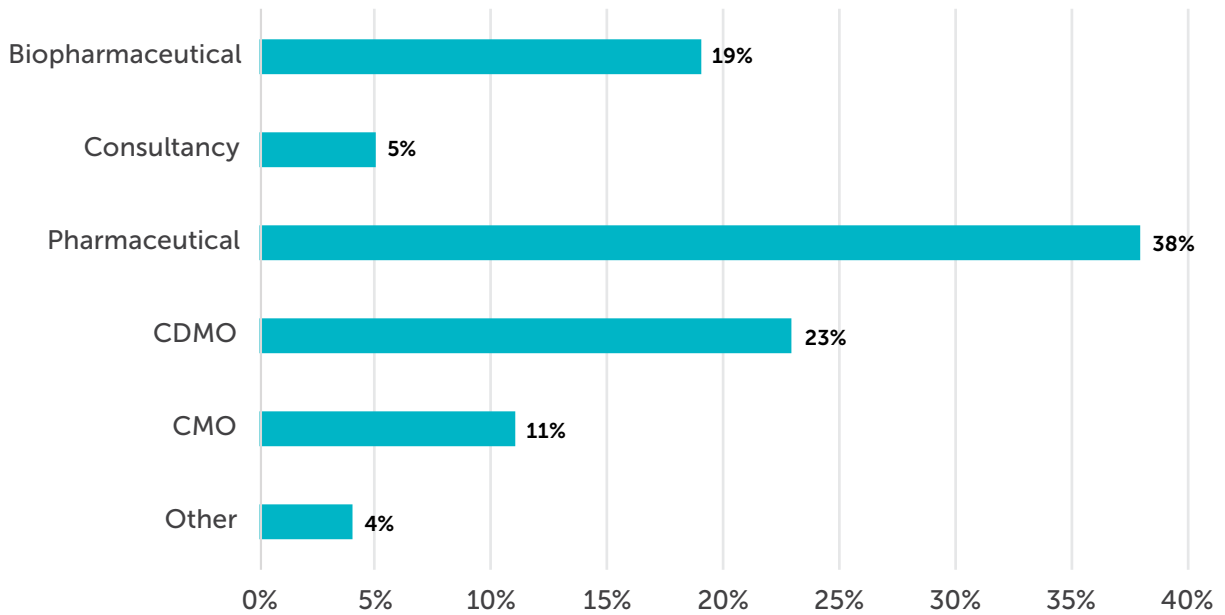
# RESPONDENT DEMOGRAPHICS

## Organization



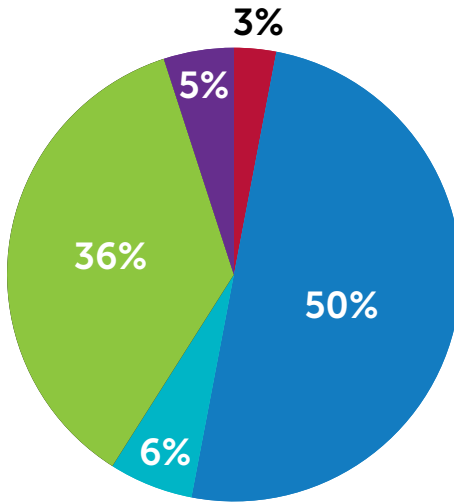
■ Small-Midsize Sponsors ■ Large Sponsors ■ Manufacturers

## Organization Type



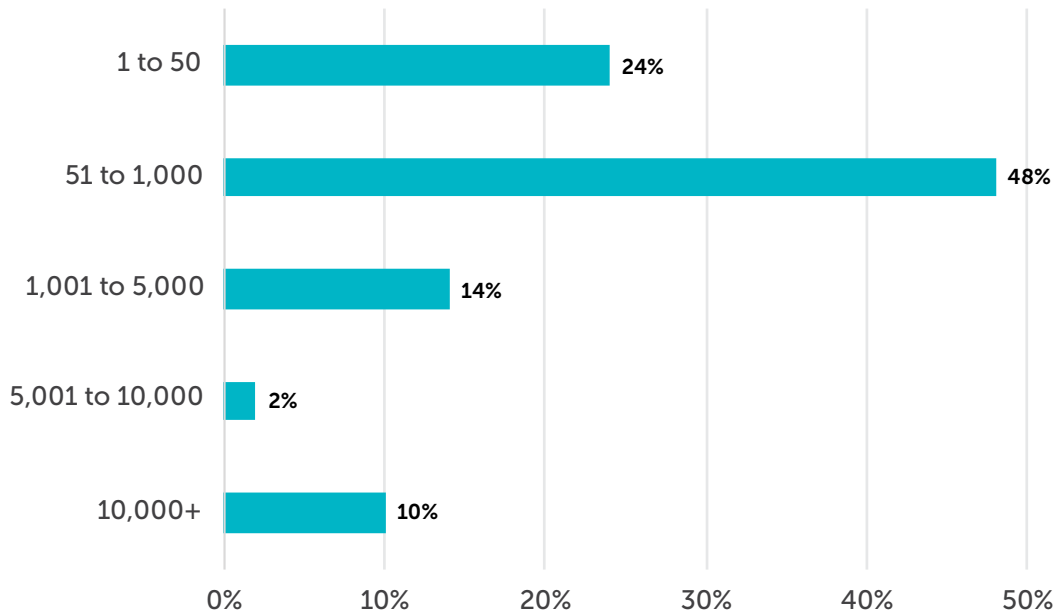
# RESPONDENT DEMOGRAPHICS

## Geography – Company HQs



■ South America ■ North America ■ Europe ■ Asia ■ Africa

## Company Size



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## About SCORR Marketing

SCORR Marketing is the leading full-service marketing and communications firm in the health science industry. We are a global partner for organizations around the world involved in research, development, and commercialization of biopharmaceutical and device products and the delivery of health care products and services. At SCORR, we provide integrated programs that help our clients achieve their goals and improve health and well-being worldwide. For more information, visit [scormarketing.com](https://www.scormarketing.com).

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