Data Management and Sharing Plan Development Tips

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Subject: NIH Data Mandate/DMP

On January 25, 2023, the National Institutes of Health (NIH) implemented a new Data Management and Sharing (DMS) Policy. Costs associated with data management and sharing should be included in grant budgets and explained in the justification section of the application.

Here are some tips for creating an effective plan:

Get Organized	• Identify an appropriate template to use. Since the new policy was implemented, plans that use an established template have been more successful.
	  • NIH template
	  • Federal Demonstration Partnership (FDP)/NIH pilot templates
	• Familiarize yourself with definitions in the DMS Policy so you can refer to them throughout the plan (e.g. data sharing, scientific data, controlled access, etc.)
	• List the costs that will be incurred to comply with the policy. These may include:
	  • Curation
	  • Developing supporting documentation
	  • Local data management activities
	  • Repository fees
	  • Personnel for preparing submissions
	  …and any other relevant cost categories

Be Specific and Clear	• Identify likely repositories that are a good fit, being sure to include which data goes where. Processed data and imaging data should be submitted to an appropriate, established repository, whether generalist or institutional. See this guide for selecting the appropriate repository to share the processed and imaging data. • Indicate where metadata will be submitted and captured for the data proposed to be generated. Description(s) as to whether these accompanying data and supplementary materials will be uploaded to the laboratory website, identified or referenced in publications, and/or accompany the data submitted to the chosen repository should be included. • Distinguish between data will be generated vs. shared. • Provide detailed descriptions of which data will be shared and why certain data may not be shared. • Distinguish between data underlying publications and data that will likely not be published. • Include important details, e.g. species/source, formats shared, amount, metadata…
Make it Comprehensive	• Be sure to include data management **AND** sharing in your plans. Applications commonly cover data management specifics while overlooking sharing details. Plans must address both. • Include mention of persistent identifiers/DOI. • Identify duration using repository retention timelines. • Include all DMS-related costs that you listed when getting organized in the budget and justification sections.

	• Generally, costs are not expected to be $0 even if the repository used is free, as there are always expenses associated with data management, preservation, and storage. If noted as $0, this will need to be justified.
	• Include details that indicate that the quality of the data will be assessed and how often the data-sharing activities outlined in the broader plan will be monitored for compliance. Example language:
	  • *Progress of data management and sharing will be reported annually in RPPRs.*
	  • *The study PI will be overseeing the execution of the DMSP and will assess quality metrics to determine when data are of sufficient quality to be shared broadly.*

Keep Consistent	• Be consistent with GDS Policy timelines for human genomic data. • Justify any deviations from the Policy by articulating why it's not possible or reasonable. • Review your plan to ensure that there is no conflicting information and that an element in one section is not contradicted in another.