



DATA AVAILABILITY  
AND QUALITY REPORT

**PASIG**

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DEVELOPMENT DATA LAB



Local governments are at the forefront of redefining public service delivery, but people should be at the core of every innovation. Over the years, it has become widely accepted that local government units (LGUs) should not only strive to improve the type and quality of government services but also transform the culture of government to make it more inclusive, transparent, and accountable. Generally, there are two ways by which LGUs can satisfy this objective:

***(1) having a deep understanding of the needs of the citizens and stakeholders as direct beneficiaries of public sector policies and services and***

***(2) cultivating an active public participation in designing, delivering, and monitoring policies and services that affect their lives.***

Central to the approach is the intensive and extensive use of data along with the adoption of appropriate technological tools. On the one hand, LGUs should be able to effectively leverage data to inform strategies in providing services that are attuned to people's needs and well-being. On the other hand, people should be aware of the availability of data and are able to actually use data to influence how they should be governed and yield benefits to their communities. In other words, effective local governance is one that employs a data-informed participatory decision-making process. This

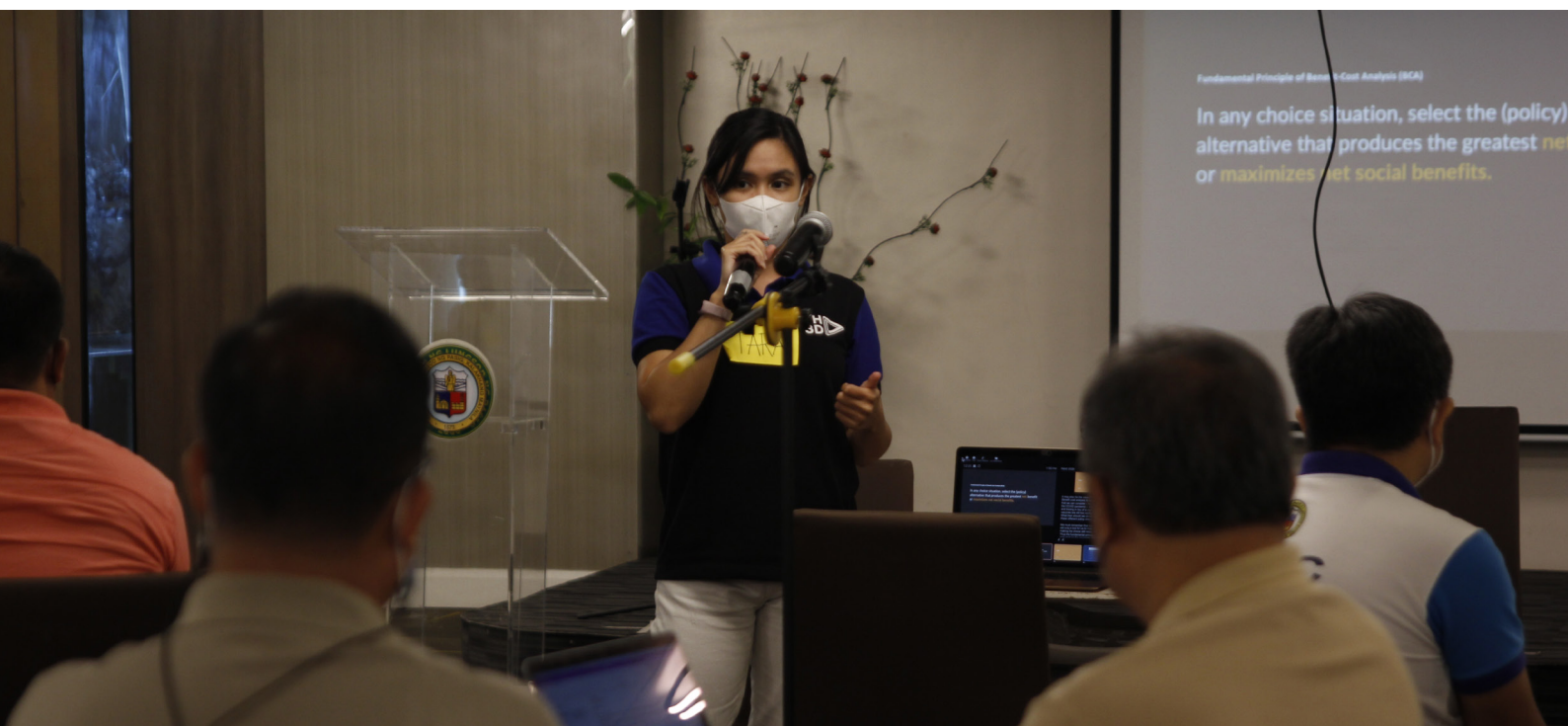
type of governance is more likely beneficial to human development.

It is through the appropriate use of data that duty-bearers can fully grasp the realities on the ground, strategically respond to public concerns, and allocate resources efficiently and effectively. Unfortunately, establishing a culture that values data-driven decision-making and a good uptake of open data by citizens remain elusive, in many local governments in the country. The Data-Driven Development in the Philippines (PH3D) Project helps all its project sites strengthen the culture of data in the local community and embrace innovations towards a people-centered local governance. The City of Pasig is one of them. A preliminary step in this intervention is to make sure the data are available and of good quality. This report provides an assessment of data collected and held by the local government of Pasig, in terms of availability and quality, to effectively ensure that the LGU can make competent decisions for the people and draw policy lessons for good governance. Towards the end of this report some recommendations and solutions are suggested.

# DATA AVAILABILITY (MANDATED VS. HELD) & QUALITY ASSESSMENT

National legislations on the collection of local data have increased notably in recent periods (see Appendix 1). In particular, various laws mandate the collection of local data in the following sectors: Disaster Risk Reduction and Management (DRRM), Health, Environment, Labor, Agriculture, Social Services, Business, Education, Human Rights, Gender, Urban Development, and others. Although not exhaustive, Table 1 provides the important sets of data required for collection in the LGU that are deemed sufficient to aid in crafting policies to promote local development. The data are clustered into five sets: Community-Based Monitoring System (CBMS), Health, Business, Geospatial including Risk Management, and Human Rights Violations Case Monitor. At present, what the city government of Pasig mainly holds and stores digitally are planning and budget data particularly the Annual Investment Plan (AIP) from CY 2019 until 2022 and the triennial Local Investment Plan for Health (LIPH) for CY 2017-2019 and 2020-2022, as shown in Table 1. The data includes projected expenditures and

financing options on the sectors of economic services, education and manpower development, health, nutrition and population control, labor and employment, housing and community development, social services and welfare, general public services and other public services. The AIP and LIPH provide the policy priorities of an LGU to support national and local development goals and objectives. Thus, the planning process should involve careful analyses of the important aspects like sectoral dynamics and revenue patterns in order to formulate effective fiscal policies and strategies. However, Table 1 shows a noticeable weakness in the LGU's data assets. Individual, household and barangay level data that can potentially cover the mentioned sectors are very scarce. Also, no data on monitoring human rights violation cases is available, yet. Collecting and making the following mandated data available in machine-readable form are essential for the following reasons and/or purposes:



**TABLE**  
**1**

# AVAILABILITY OF LOCAL DATA IN PASIG

MANDATED DATA	PURPOSE	LGU COLLECTED DATA	YEAR
<b>CBMS HOUSEHOLD SURVEY DATA</b>	Derive the multidimensional poverty index and indicators on: <ul style="list-style-type: none"> <li>• <i>Health, Nutrition, Housing, Water and sanitation, Education, Income and Employment</i></li> </ul>	For implementation	Not applicable
<b>HEALTH DATA</b>	Gather relevant data on: <ul style="list-style-type: none"> <li>• <i>PWDs</i></li> <li>• <i>Responsible reproductive health and parenthood</i></li> <li>• <i>Health facilities and skilled health professionals</i></li> <li>• <i>Mental health</i></li> <li>• <i>Universal Health Care</i></li> <li>• <i>Cancer Cases</i></li> <li>• <i>Notifiable diseases</i></li> <li>• <i>Health events of public concern</i></li> </ul>	COVID-19 Active Cases COVID-19 Close Contact COVID-19 Vaccination Status	2019, 2020, 2021, 2022 (partial)
		Local Investment Plan for Health (LIPH)	2017-2019 2020-2022
		Annual Investment Plan (AIP) <ul style="list-style-type: none"> <li>• <i>includes programs/projects/ activities on health and corresponding budget allocation</i></li> </ul>	2019, 2020, 2021, 2022
<b>BUSINESS DATA</b>	Identify businesses operating in the locality and status of their compliance to environmental monitoring and compliance	Not shared	Not applicable
<b>GEOSPATIAL AND RISK MANAGEMENT DATA</b>	Get information on climate change and disaster risk management, vulnerability of the agriculture and fishery sector, vulnerability of flooding, drought and other calamities, and hunger, and the extent of disaster preparedness	Annual Investment Plan (AIP) <ul style="list-style-type: none"> <li>• <i>includes programs/projects/ activities on DRRM and related services and corresponding budget allocation</i></li> </ul>	2019, 2020, 2021, 2022
<b>CASE MONITOR DATA</b>	Monitor human-rights cases: <ul style="list-style-type: none"> <li>• <i>Extralegal killings</i></li> <li>• <i>Enforced disappearances</i></li> <li>• <i>Torture</i></li> <li>• <i>Trafficking</i></li> <li>• <i>Sexual harassment</i></li> <li>• <i>Programs under the Juvenile Justice and Welfare Act</i></li> </ul>	None	Not applicable

MANDATED DATA	FORMAT	DISAGGREGATION	FREQUENCY OF DATA AVAILABILITY
CBMS HOUSEHOLD SURVEY DATA	Not applicable	Not applicable	Not applicable
HEALTH DATA	xls	Location/Barangay Disposition (Home Quarantine, Facility Quarantine, Admitted, etc.) Occupation Age, Sex, etc.	Daily
	xls	Program/Project/Activity Cost per year	Every three (3) years
	xls	Program/Project/Activity Implementing Department Type of Expense	Yearly
BUSINESS DATA	Not applicable	Not applicable	Not applicable
GEOSPATIAL AND RISK MANAGEMENT DATA	xls	Program/Project/Activity Implementing Department Type of Expense	Yearly
CASE MONITOR DATA	Not applicable	Not applicable	Not applicable



## COMMUNITY-BASED MONITORING SYSTEM (CBMS) DATA

The Community-based Monitoring System (CBMS) generates data on population and household size, health and nutrition, housing, water and sanitation, basic education and literacy, income and livelihood, and peace and order of the city. This household-level data can be used by the LGU to conduct a comprehensive poverty analysis to shape policies and interventions targeting the appropriate households. The LGU can also obtain information from the collected CBMS data for disaster risk reduction and management. The CBMS data are to be

collected every three years making it a useful tool for monitoring the impact of future poverty alleviation and development programs. Unlike the traditional paper-based ones, CBMS data collected digitally has many advantages mainly because they have better quality. The data undergo a systematic way of acquiring, processing, and verifying. The protocols for data collection do not change, and the use of ICT tools from collection to validation stage reduces human errors.

## HEALTH DATA

The Field Health Service Information System (FHSIS) data is the designated national health statistics by the Department of Health (DOH). It is the major source of health and health-related data in the LGU. The FHSIS is the main source of indicators for public health monitoring and the measures to track progress in Universal Health Care implementation. The FHSIS data are collected from public primary healthcare facilities and hospitals following the standards set by the DOH, so the granularity of required data is well-defined.

Unfortunately, the City Government of Pasig has limited access to their FHSIS data. The designated LGU office cannot download the data from the system and therefore, unable to use the data for local health investment planning. Aside from lacking FHSIS data, the LGU also does not make available other health and health related data like the registry of persons with disability (PWDs), Senior Citizens, and other vulnerable groups. The data to be collected should not only inform the magnitude and proportion of identified individuals in the city but also should contain data such as but not limited to location, sex, age, educational attainment, marital status, skills, occupation, eligibility to social services, etc. Aggregated data will make data validation impossible and will have limited applicability

and usability. Therefore, the more disaggregated the data and frequently collected as necessary, the better.

***The COVID-19-related data collected by the LGU from 2020 until present is an example of good quality, disaggregated and frequently collected data.***

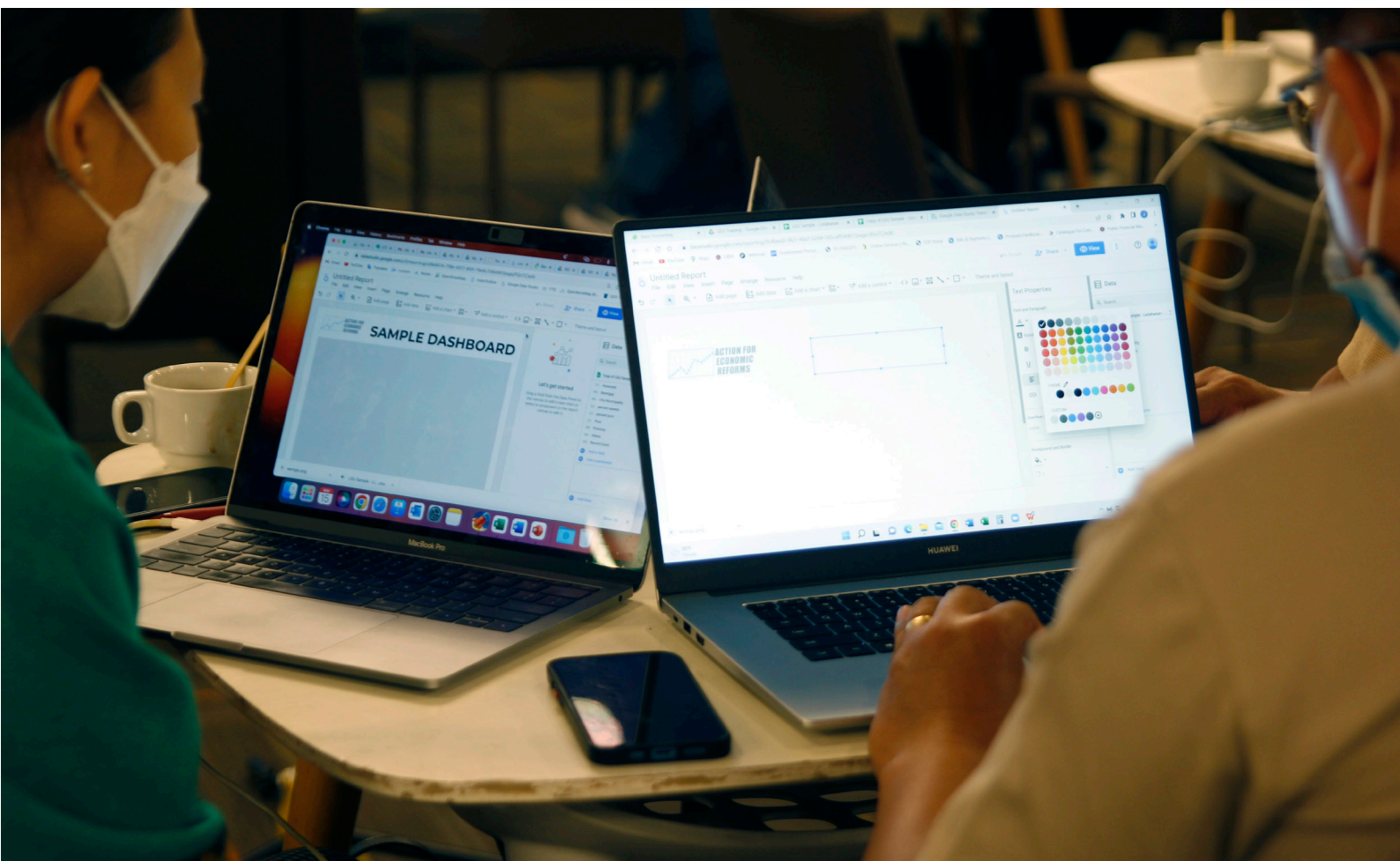
COVID-19 data are necessary to be collected daily to monitor the severity of the outbreak in the city and help inform and shape timely policies in response to it. For the purpose of discussion, the data are assessed in terms of the five dimensions of data quality – precision, accuracy, reliability, timeliness, and integrity. The detailed assessment of the quality of local data is displayed in the Data Processing template (Appendix 2). A summary of the result is shown in Table 2. The COVID-19 data collected by Pasig LGU includes individual data on COVID-19 infected individuals, close contact, probable cases, etc. All significant variables are collected to serve its purpose – monitoring the extent of disease outbreak, designing of appropriate COVID-19 responses and determining eligible beneficiaries to applicable cash and in-kind assistance programs. Some of the important data collected are date of onset of illness,

date reported, date (the person is) seen-admitted, type of COVID-19 test done, date the specimen are collected, travel history, exposure history, comorbidity, vaccination status, type of vaccine administered, and number of vaccine shots availed. Although many data are missing at the earlier stage of data collection particularly on the 1st semester of CY: 2020. For example, not more than 50% of the data on date of end of quarantine, age, date of onset of illness, travel history, exposure history, occupation, etc. are filled. Eventually, there have been minimal missing entries. The COVID-19 data collected daily are from different channels – paper forms and online tools (messenger, viber, etc.) and sources – all hospitals (public and private) and laboratories in Pasig City, the Department of Health's Epidemiology Bureau (DOH-EB), and the COVID-19 Surveillance and Quick Action Unit (CSQUA). Data from multiple excel sheets are consolidated everyday and centrally stored in the COVID-19 Documents Repository System set up by the LGU. Data collected using paper forms and subsequently encoded in

excel. But the consolidation process can be very tedious and prone to errors.

***The good alternative to making data collection efficient is using digital data collection tools (like KoBo toolbox) which automatically stores updated data. The use of digital collection tools increases the integrity of the data holdings of the LGU.***

This is manifested in the quality of data generated by the PasigPass which is the QR-code based contact tracking or tracing system of Pasig City. The records deposited in the CDRS are verified or matched against the data collected through the PasigPass. The PasigPass data are very helpful in conducting faster and accurate contact tracing activities and determining probable COVID-19 cases.



## BUSINESS DATA

Maintaining a list of business establishments operating in the city can help identify the nature of businesses (food production and retail sale (like restaurants, bakeries, sari-sari stores, etc.) and the size of businesses (micro, small, medium and large) that are thriving in the area. A good business dataset is to include the number of employees for each establishment which can serve as an indirect measure of employment. The number of employees can be further disaggregated by sex. The

important reminder is that the dataset should be able to include informal businesses which make up a significant portion of active businesses in most localities. Also, the data should be useful for tracking compliance of the establishments on application and renewal of licences and environmental compliance and clearances as required by law to be monitored by the LGU. Data can be collected electronically to reduce encoding errors.



## GEOSPATIAL AND RISK MANAGEMENT DATA

Geospatial data are helpful sources of information on disaster risk management, determining the sectoral vulnerability, vulnerability of the populace to flooding, drought and other calamities, and hunger, and the extent of disaster preparedness of the LGU. Data on families and individuals affected during calamities, the casualties, damaged houses, evacuees and designated evacuation centers for every barangay will facilitate faster disaster response operations to areas where help is most needed. Geospatial data that provide accurate information where its land and water areas are, as well as administrative boundaries, roads, residential and building areas, health facilities, high density areas, remote areas from all its barangays will definitely contribute to efficient disaster risk reduction and management.

While LGU data are still lacking, there is one good practice that can help enhance the availability of its local data. It is the collection of requests from its constituents in relation to

its Freedom of Information (FOI) policy. The volume of FOI requests reveal that there is an increasing demand for access to data collected and held by the LGU. Thus, compelling the LGU to make data available digitally or accessible online to facilitate faster response to the requests or perhaps, start collecting data that are not available but commonly requested.

***The better practice to efficiently respond to FOI requests is to make as much data available and open to the public. In doing so, it can increase citizen participation and promote the widespread use of data in crafting local policies.***

A possible unintended consequence of the intensive and extensive use of data in the locality is holding a broader database and better quality data through time.



TABLE  
2

## QUALITY OF LOCAL DATA IN PASIG

DATASET	PRECISION	ACCURACY	RELIABILITY	TIMELINESS	INTEGRITY
<b>HEALTH DATA (COVID-19 DATA)</b>	Contains individual data on COVID-19 infected individuals, close contact, probable cases, etc. Includes important individual data useful for decision or policy making like onset of illness, date reported, date seen-admitted, type of COVID test done, data specimen collected, travel history, exposure history, comorbidity, vaccination status, type of vaccine, number of vaccine shots availed, start/end of quarantine, location/ barangay, age, occupation, etc.	All significant variables are collected to serve its purpose – monitoring the extent of disease outbreak, designing of appropriate COVID responses and determining eligible beneficiaries to applicable cash and in-kind assistance programs. Some data are missing at the earlier stage of data collection (1st semester of CY: 2020). For example, more than 50% of the data on the following are not available: <ul style="list-style-type: none"> <li>· <i>End of quarantine</i></li> <li>· <i>Age</i></li> <li>· <i>Onset of illness</i></li> <li>· <i>Travel history</i></li> <li>· <i>Exposure history</i></li> <li>· <i>Occupation, etc.</i></li> </ul> Eventually, there have been minimal missing entries.	The data are centrally stored in COVID Documents Repository System and validated against different sources like the PasigPass (QR-code based contact tracking/tracing system) database which makes determination of close contact and probable cases reliable.	Data are collected daily and subsequently encoded and consolidated within the day	Data collected using paper forms and encoded in multiple excel sheets can make consolidation very tedious and prone to errors. Using digital data collection tools (like KoBo toolbox) that automatically stores updated data will increase the integrity of collected data. Data generated from the PasigPass database are less prone to errors. Using the data makes data verification and contact tracing results trustworthy.



Data-Driven Development  
in the Philippines

# GENERAL RECOMMENDATIONS

*The availability, conditions, and characteristics of local data are critical to draw valuable insights. High quality data translates into better opportunities to transform the lives of the people. However, based on the previous discussions, the city's data assets are still lacking important elements to further progress on data driven development. To ensure better data availability and quality of local data, the following are suggested:*

## 1

### STRENGTHEN DIGITAL DATA COLLECTION

Digitizing data or collecting data digitally is vital to ensure data accessibility and quality. Basically, it increases data availability that allows for readily performing computations and data analysis and enhances data quality so that derived insights are reliable and effective. Digital data collection tools facilitate faster and more reliable data collection. There are free or open-source tools that are secured like KoBo Toolbox which the LGU can use. Data are collected real-time and made available in machine readable format. It also readily provides basic analysis. Hence, shifting from paper-based to digital collection reduces costs and increases efficiency in governance. Digital data collection methods and therefore storage, also make possible the integration of local data across departments and offices in the local government.

Digital methods can best be explored to expand local data in the hope of collecting more comprehensive, accurate and timely data necessary to make richer analysis and derive more valuable insights. In terms of health, the LGU can start digitizing FHSIS data for faster and more reliable consolidation of health and health-related data.

Electronic Medical Records (EMRs) are also not available in the LGU. Acquiring an EMR system is a good example of health care innovation that enhances data quality because unlike the traditional paper-based ones, using the digitally collected and stored patient data like the EMR tend to be more precise, accurate, reliable, timely and less prone to human errors.

The CBMS should be implemented soon and data should be made available immediately. An important reminder in acquiring and storing survey data like the CBMS is to have proper documentation of the entire process from survey conceptualization to implementation. Some important elements of the documentation should include guides for data users to track details and understand how and what data were collected like the metadata, codebook or coding information, questionnaires, and so on. These documents can make it easier to retrieve datasets and facilitate accurate use and reuse of collected data. It is a standard discipline in data management which the city can adopt to ensure the integrity of local data.



## 2

## DETERMINE AND COLLECT ALL RELEVANT VARIABLES

There are missing or uncollected variables useful to influence decisions and policies. Consider geospatial data, for example. An accurate, complete and up-to-date geospatial data are needed to make timely decisions and appropriate actions, in any disaster situation. It can inform the overall extent of damages caused by the calamity and the affected communities and individuals thereby, helps in assessing the individual needs and determining the type and scale of assistance to be provided. For this reason, it is essential for the LGU to collect geospatial data that will guide decisions for disaster prevention (like topographical maps, communities and settlements, etc.), preparedness (location of facilities, evacuation centers, relocation sites, etc.), mitigation (land use, zoning, etc.), and response (accessible roads, feasible transport routes, etc.) initiatives. Geospatial data also provide critical information for recovery or post-disaster rehabilitation, reconstruction and government administration for sustainable community planning.

In the area of health, the LGU should have access to data collected from all of its public health facilities and start collecting data on private facilities as well to benefit the overall health system operations. Disaggregated data on individuals and households are critically important in coming up with effective health programs, strengthening the existing health programs, and determining health appropriations and expenditures so, these should also be made available. Other important health related data includes data on vulnerable groups, health care products and facilities utilization, and human resources for health and their corresponding competencies. Data to measure health care worker knowledge like the skilled health workers' continuing professional development will help ensure that the health workers' knowledge and skills stay relevant, and their capacities keep pace with current health standards.



### 3 AVOID REDUNDANCIES AND KEEP HISTORICAL DATA

The implementation of the CBMS, presents an opportunity for the LGU to synchronize data collection efforts to minimize the costs and maximize the benefits of data collection. Historical data should also be maintained because it can provide critical information with high value to society. For example, the analysis of health data from previous years can provide insights about disease trends and risk factors, patterns of care, health care use and its

costs, and the outcomes of public health interventions in the city. Similarly, an updated list of vulnerable individuals will facilitate faster, more reliable and transparent distribution of cash and in-kind assistance to eligible beneficiaries.

### 4 ENRICH LOCAL DATA THROUGH PARTNERSHIPS WITH DIFFERENT SECTORS

As mentioned earlier, peoples' participation is the sufficient condition for reforms in governance. Starting from data publication, the LGU can advance work to data dissemination through intentional coalition building. Data should be made easily accessible to spark innovation. People should know data are available and use it to yield

benefits to the community. Eliminating the horizontal (between LGU and the public) and vertical (between LGU and national government offices and agencies) barriers to data access is the first big step towards free flow of data that will potentially broaden the database in the locality.





## APPENDIX

## 1

# NATIONALLY MANDATED DATASETS FOR LOCAL GOVERNMENT

SECTOR	DATASET	DESCRIPTION	LEGISLATION/ AGENCY DIRECTIVE	
MULTIPLE	Community-based Monitoring System	Generates updated and disaggregated data necessary in targeting beneficiaries, conducting more comprehensive poverty analysis and needs prioritization, designing appropriate policies and interventions, and monitoring impact over time.	Community-Based Monitoring System Act (RA 11315)	
	Climate Disaster Risk Assessment (CDRA)	Considers the "risks and vulnerabilities of exposed elements, namely the people, urban area, agriculture, forestry and fishery production areas, critical points facilities, and lifeline infrastructure associated with natural hazards and climate change."	HLURB Board of Commissioners Resolution No. 915 (2014), "Approving the Supplemental Guidelines for Mainstreaming Climate Change Adaptation and Disaster Risk Reduction in the Comprehensive Land Use Plan"	
	Local Disaster Risk Reduction and Management Fund (LDRRMF) Utilization	Contains the specific projects an LGU undertakes relative to DRRM, and how the funding for such projects have been utilized.	Philippine Disaster Risk Reduction and Management Act of 2010 (RA 10121)	
DISASTER RISK REDUCTION & MANAGEMENT (DRRM)	Disaster Management Services	Includes up-to-date information about the LGU in times of disasters (contact information of the LGU and agencies required to respond to emergency situations, evacuation areas, relief sites, and pick-up points, etc.)	The Free Mobile Disaster Alerts (RA 10639)	
	Persons with Disabilities (PWDs)	Contains a list of PWDs in the LGU, and the relevant data including specific disabilities of the PWDs	Rep. Act No. 10070, amending Rep. Act No. 7277, otherwise known as The Magna Carta for Disabled Person	
	Responsible Parenthood and Reproductive Health	Data on women's health and safe motherhood and health services in the LGU (list of deceased mothers due to maternal deaths, deceased infants, hospital and health centers in the LGU, assets relevant to dealing with maternity issues)	The Responsible Parenthood and Reproductive Health Act of 2012 (RA 10354)	
	Excise Tax Allocation and Utilization	Contains a list of programs for tobacco farmers and workers and funding support to health facilities	Implementing Rules and Regulations of RA 10351, DOF-BIR-DOH-DBM-DA Joint Circular No. 01-14	
	Mental Health Registry	A registry of people who have been attended to and/or served, the respective kinds of mental illness or disability, duration and result of the treatment, and patients/service profile.	Mental Health Act (RA 11036)	
	Universal Health Care programs	Contains policies and programs undertaken to strengthen and broaden existing health policies to support universal health care implementation	Universal Health Care Act (RA 11223)	
	Disease Surveillance	Report on cases of infection or exposure to outbreak/pandemic/epidemic or any health event of public concern.	IRR of the Mandatory Reporting of Notifiable Diseases and Health Events of Public Health Concern Act (RA 11332)  2020 Revised IRR of RA 11332	
	HEALTH			

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## 1

# NATIONALLY MANDATED DATASETS FOR LOCAL GOVERNMENT

SECTOR	DATASET	DESCRIPTION	LEGISLATION/ AGENCY DIRECTIVE
BUSINESS	Business Establishments	A list of business establishments issued a business licence, clearance, permit, certification, or authorization including information of applicant or requesting party by various local government departments, such as local taxes and clearances, building clearance, sanitary permit, zoning clearance, and other specific LGU requirements, including the fire clearance.	Promoting Ease of Doing Business and Efficient Delivery of Government Services, Amending for the Purpose R.A. No. 9485 (RA 11032)
	Fisheries Information	A database of who the fisherfolk are in the LGU, their equipment such as boats, nets, etc., where they conduct fishing, where they sell their catch, etc.	Adopting a National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported, and Unregulated Fishing, and for Other Purposes, Executive Order No. 154
ENVIRONMENT	Mining Industry	A database of local ordinances and contracts related to mining for review of the Mining Industry Coordinating Council	Institutionalising and Implementing Reforms in the Philippine Mining Sector, Executive Order No. 79
	Retiring Government Employees	A database of government officials and employees who shall compulsorily retire in the next succeeding fiscal year	RA 10154 & Implementing Rules and Regulations of Republic Act No. 10154 (An Act Requiring All Concerned Government Agencies to Ensure the Early Release of the Retirement Pay, Pensions, Gratuities and Other Benefits of Retiring Government Employees)
LABOR	JobStart Program Registry	A database of all registrants under the Jobstart Philippines Act, and employers who are willing to facilitate qualified registrants for the program	JobStart Philippines Act (RA No. 10869)
	Healthcare Workers	A database of healthcare workers in the LGU to identify those eligible for life insurance, accommodation, transportation, and meals.	Implementing Guidelines on the Provision of Life Insurance, Accommodation, Transportation, and Meals to Public and Private Health Workers under RA 11494, DOH Administrative Order No. 0054-20
AGRICULTURE	Labor Market Information	A registry of establishments operating in the locality, present number and nature of jobs, projection of jobs that the establishment will offer in the next five (5) years	PESO Act (RA 8759), as amended by Rep. Act No. 10691
	Local Producers	A masterlist of farmers, farmworkers, and rice cooperative and associations who are eligible beneficiaries of agriculture programs	Liberalizing the Importation, Exportation and Trading of Rice, Lifting for the Purpose the Quantitative Import Restriction on Rice (RA 11203)
	Coconut Farmers	A registry of coconut farmers and their organization	Coconut Farmers and Industry Trust Fund Act (RA 11524)
	Corn Production	A database of corn farms and corn production in the LGU	General Guidelines on the Implementation of the Fall Armyworm (FAW) Management Project under the Bayanihan to Recover as One Act (RA 11494), DA Memorandum Order No. 26-21

SECTOR	DATASET	DESCRIPTION	LEGISLATION/ AGENCY DIRECTIVE
SOCIAL SERVICES	Pantawid Pasada Program	A database of all tricycle drivers within the LGU eligible for Public Transport Assistance Program	Instituting the Public Transport Assistance Program — Pantawid Pasada, Executive Order No. 32
	Enhanced Comprehensive Local Integration Program	A database of former rebels/extremists in their locality or spotted in the locality.	This is the Revised IRR of AO No.10, s. 2018 entitled: Centralizing All Government Efforts for the Reintegration of Former Rebels and Creating for the Purpose an Inter-Agency Task Force aimed at empowering individual former rebels, former violent extremists, their families and communities.
	Emergency Subsidies Beneficiaries	A list of citizens in the locality who have received emergency subsidies under the Bayanihan to Recover as One Act.	Special Guidelines on the Implementation of the Provisions of Republic Act No. 11494 or the "Bayanihan to Recover as One Act" Concerning DSWD, DSWD Memorandum Circular No. 030-20
PUBLIC UTILITIES ENERGY	Energy Consumption	Includes the amount of energy consumption by the LGU	DOE DEPARTMENT CIRCULAR NO. DC2019-11-0014, Implementing Rules and Regulations of Republic Act No. 11285 (Energy Efficiency and Conservation Act)
	MULTIPLE	Human Rights Violations	A database of extra-legal killings, enforced disappearances, torture, and other grave violations of the right to life, liberty, and security of persons that might have occurred in that locality as wells as cases of trafficking in persons.
Traffic Violations		A database of traffic violation receipts issued by the LGU.	IRR of RA 10930, An Act Rationalizing and Strengthening the Policy Regarding Driver's License amending Section 23 of the Land and Transportation and Traffic Code (RA 4136)
Urban Development		A database of areas that were subject to housing and urban development, and further, what the nature of the development was.	IRR of Department of Human Settlements and Urban Development Act (RA 11201)
Gender		A database of sexual harassment in streets and public spaces.	Safe Spaces Act (RA 11313)
Fire Prevention and Safety		Database of establishments and homes, within which those who comply or not comply with fire safety measures are marked accordingly.	Revised IRR of the The Fire Code of the Philippines Of 2008 (RA 9514)
Alternative Learning System (ALS)		Database of ALS learners (out-of-school children in special cases and adults), both prospective and current.	Alternative Learning System Act (RA 11510)

## APPENDIX 2

# DATA PROCESSING TEMPLATE

(FULL VERSION AVAILABLE UPON REQUEST)

DATASET NAME	YEAR	FILE NAME	FILE TYPE	SHEET NAME	COLUMN NAME	COLUMN DATA TYPE	ENUM VALUES	VALID RANGE	NO. OF RECORDS	NO. OF NULL VALUES
CLOSE CONTACT CASES MAR. 3, 2022	2022	CLOSE CONTACT CASES MAR. 3, 2022	XLSX	SHEET1	NO.	INT	N/A	GREATER THAN 0	53314	0
CLOSE CONTACT CASES MAR. 3, 2022	2022	CLOSE CONTACT CASES MAR. 3, 2022	XLSX	SHEET1	DATE REPORTED	DATE	N/A	N/A	53314	827
CLOSE CONTACT CASES MAR. 3, 2022	2022	CLOSE CONTACT CASES MAR. 3, 2022	XLSX	SHEET1	START OF QUARANTINE	DATE	N/A	N/A	53314	1006
CLOSE CONTACT CASES MAR. 3, 2022	2022	CLOSE CONTACT CASES MAR. 3, 2022	XLSX	SHEET1	END OF QUARANTINE	DATE	N/A	N/A	53314	3567
CLOSE CONTACT CASES MAR. 3, 2022	2022	CLOSE CONTACT CASES MAR. 3, 2022	XLSX	SHEET1	SURNAME	STRING	N/A	N/A	53314	13
CLOSE CONTACT CASES MAR. 3, 2022	2022	CLOSE CONTACT CASES MAR. 3, 2022	XLSX	SHEET1	FIRSTNAME	STRING	N/A	N/A	53314	8
CLOSE CONTACT CASES MAR. 3, 2022	2022	CLOSE CONTACT CASES MAR. 3, 2022	XLSX	SHEET1	MIDDLE NAME	STRING	N/A	N/A	53314	3693
CLOSE CONTACT CASES MAR. 3, 2022	2022	CLOSE CONTACT CASES MAR. 3, 2022	XLSX	SHEET1	NATIONALITY	STRING	N/A	N/A	53314	85
CLOSE CONTACT CASES MAR. 3, 2022	2022	CLOSE CONTACT CASES MAR. 3, 2022	XLSX	SHEET1	AGE	INT	N/A	GREATER THAN 0	53314	394
CLOSE CONTACT CASES MAR. 3, 2022	2022	CLOSE CONTACT CASES MAR. 3, 2022	XLSX	SHEET1	SEX	STRING	F, M, FEMALE, MALE	N/A	53314	338
CLOSE CONTACT CASES MAR. 3, 2022	2022	CLOSE CONTACT CASES MAR. 3, 2022	XLSX	SHEET1	BIRTHDATE	DATE	N/A	N/A	53314	2159
CLOSE CONTACT CASES MAR. 3, 2022	2022	CLOSE CONTACT CASES MAR. 3, 2022	XLSX	SHEET1	COMPLETE ADDRESS	STRING	N/A	N/A	53314	265
CLOSE CONTACT CASES MAR. 3, 2022	2022	CLOSE CONTACT CASES MAR. 3, 2022	XLSX	SHEET1	BARANGAY	STRING	N/A	N/A	53314	0
CLOSE CONTACT CASES MAR. 3, 2022	2022	CLOSE CONTACT CASES MAR. 3, 2022	XLSX	SHEET1	TRAVEL HISTORY	DATE	N/A	N/A	53314	5064
CLOSE CONTACT CASES MAR. 3, 2022	2022	CLOSE CONTACT CASES MAR. 3, 2022	XLSX	SHEET1	EXPOSURE HX	STRING	N/A	N/A	53314	2563
CLOSE CONTACT CASES MAR. 3, 2022	2022	CLOSE CONTACT CASES MAR. 3, 2022	XLSX	SHEET1	DRU	STRING	N/A	N/A	53314	1789



DATASET NAME	% NULL VALUES	NO. OF INVALID VALUES	% INVALID VALUES	% TOTAL INVALID+ NULL	COMMENTS	DO THE VALUES NEED TO BE PROCESSED OR CLEANED?	IF YES, DESCRIBE NATURE OF PROCESSING OR CLEANING DONE.	IS IT A PII COLUMN? DOES IT (POTENTIALLY) NEED TO BE MASKED?	FINAL VARIABLE NAME	FINAL VARIABLE TYPE
CLOSE CONTACT CASES MAR. 3, 2022	0%	0	0%	0	0%	0%	N/A	NO	N/A	NO
CLOSE CONTACT CASES MAR. 3, 2022	2%	67	0%	0	0%	2%	N/A	NO	N/A	NO
CLOSE CONTACT CASES MAR. 3, 2022	2%	72	0%	0	0%	2%	N/A	NO	N/A	NO
CLOSE CONTACT CASES MAR. 3, 2022	7%	78	0%	0	0%	7%	N/A	NO	N/A	NO
CLOSE CONTACT CASES MAR. 3, 2022	0%	13	0%	0	0%	0%	N/A	NO	N/A	NO
CLOSE CONTACT CASES MAR. 3, 2022	0%	14	0%	0	0%	0%	N/A	NO	N/A	NO
CLOSE CONTACT CASES MAR. 3, 2022	7%	657	1%	0	0%	7%	N/A	NO	N/A	YES
CLOSE CONTACT CASES MAR. 3, 2022	0%	5	0%	0	0%	0%	N/A	NO	N/A	NO
CLOSE CONTACT CASES MAR. 3, 2022	1%	830	2%	0	0%	1%	N/A	NO	N/A	NO
CLOSE CONTACT CASES MAR. 3, 2022	1%	714	1%	0	0%	1%	N/A	NO	N/A	NO
CLOSE CONTACT CASES MAR. 3, 2022	4%	962	2%	0	0%	4%	N/A	NO	N/A	NO
CLOSE CONTACT CASES MAR. 3, 2022	0%	371	1%	0	0%	0%	N/A	NO	N/A	NO
CLOSE CONTACT CASES MAR. 3, 2022	0%	0	0%	0	0%	0%	N/A	NO	N/A	NO
CLOSE CONTACT CASES MAR. 3, 2022	9%	34135	64%	0	0%	9%	N/A	NO	N/A	NO
CLOSE CONTACT CASES MAR. 3, 2022	5%	1116	2%	0	0%	5%	N/A	NO	N/A	NO
CLOSE CONTACT CASES MAR. 3, 2022	3%	1628	3%	0	0%	3%	N/A	NO	N/A	NO

## APPENDIX 2

# DATA PROCESSING TEMPLATE

(FULL VERSION AVAILABLE UPON REQUEST)

DATASET NAME	YEAR	FILE NAME	FILE TYPE	SHEET NAME	COLUMN NAME	COLUMN DATA TYPE	ENUM VALUES	VALID RANGE	NO. OF RECORDS	NO. OF NULL VALUES
COVID FILE MAR. 3, 2022	2022	COVID FILE MAR. 3, 2022	XLSX	PUI & PUM	BARANGAY	STRING	N/A	N/A	32	0
COVID FILE MAR. 3, 2022	2022	COVID FILE MAR. 3, 2022	XLSX	PUI & PUM	PUI, CUMMULATIVE PROBABLE	INT	N/A	GREATER THAN OR EQUAL TO 0	32	0
COVID FILE MAR. 3, 2022	2022	COVID FILE MAR. 3, 2022	XLSX	PUI & PUM	PUI, CUMMULATIVE SUSPECT	INT	N/A	GREATER THAN OR EQUAL TO 0	32	0
COVID FILE MAR. 3, 2022	2022	COVID FILE MAR. 3, 2022	XLSX	PUI & PUM	CLOSE CONTACT, CUMMULATIVE CLOSE CONTACT	INT	N/A	GREATER THAN OR EQUAL TO 0	32	0
COVID FILE MAR. 3, 2022	2022	COVID FILE MAR. 3, 2022	XLSX	ACTIVE CASES	DATE	DATE	N/A	N/A	739	0
COVID FILE MAR. 3, 2022	2022	COVID FILE MAR. 3, 2022	XLSX	ACTIVE CASES	FRESH CASES	INT	N/A	GREATER THAN OR EQUAL TO 0	739	483
COVID FILE MAR. 3, 2022	2022	COVID FILE MAR. 3, 2022	XLSX	ACTIVE CASES	NEW CONFIRMED CASES	INT	N/A	GREATER THAN OR EQUAL TO 0	739	28
COVID FILE MAR. 3, 2022	2022	COVID FILE MAR. 3, 2022	XLSX	ACTIVE CASES	DEATHS	INT	N/A	GREATER THAN OR EQUAL TO 0	739	28
COVID FILE MAR. 3, 2022	2022	COVID FILE MAR. 3, 2022	XLSX	ACTIVE CASES	RECOVERED	INT	N/A	GREATER THAN OR EQUAL TO 0	739	28
COVID FILE MAR. 3, 2022	2022	COVID FILE MAR. 3, 2022	XLSX	ACTIVE CASES	ACTIVE CASE	INT	N/A	GREATER THAN OR EQUAL TO 0	739	0
COVID FILE MAR. 3, 2022	2022	COVID FILE MAR. 3, 2022	XLSX	PREVALENCE PER BARANGAY BY 100,000	BARANGAY	STRING	N/A	N/A	31	0
COVID FILE MAR. 3, 2022	2022	COVID FILE MAR. 3, 2022	XLSX	PREVALENCE PER BARANGAY BY 100,000	CONFIRMED CASES	INT	N/A	GREATER THAN OR EQUAL TO 0	31	0
COVID FILE MAR. 3, 2022	2022	COVID FILE MAR. 3, 2022	XLSX	PREVALENCE PER BARANGAY BY 100,000	RECOVERED	INT	N/A	GREATER THAN OR EQUAL TO 0	31	0
COVID FILE MAR. 3, 2022	2022	COVID FILE MAR. 3, 2022	XLSX	PREVALENCE PER BARANGAY BY 100,000	EXPIRED	INT	N/A	GREATER THAN OR EQUAL TO 0	31	0
COVID FILE MAR. 3, 2022	2022	COVID FILE MAR. 3, 2022	XLSX	PREVALENCE PER BARANGAY BY 100,000	ACTIVE CASE	INT	N/A	GREATER THAN OR EQUAL TO 0	31	0
COVID FILE MAR. 3, 2022	2022	COVID FILE MAR. 3, 2022	XLSX	PREVALENCE PER BARANGAY BY 100,000	POPULATION PER BARANGAY	INT	N/A	GREATER THAN OR EQUAL TO 0	31	0
COVID FILE MAR. 3, 2022	2022	COVID FILE MAR. 3, 2022	XLSX	PREVALENCE PER BARANGAY BY 100,000	PREVALENCE BY 100,000	FLOAT	N/A	GREATER THAN OR EQUAL TO 0	31	0
COVID FILE MAR. 3, 2022	2022	COVID FILE MAR. 3, 2022	XLSX	PREVALENCE PER BARANGAY BY 100,000	PREVALENCE OF ACTIVE CASE PER 100,000	FLOAT	N/A	GREATER THAN OR EQUAL TO 0	31	6
COVID FILE MAR. 3, 2022	2022	COVID FILE MAR. 3, 2022	XLSX	RAW	PUI, SUSPECTED	INT	N/A	GREATER THAN OR EQUAL TO 0	1	0

DATASET NAME	% NULL VALUES	NO. OF INVALID VALUES	% INVALID VALUES	% TOTAL INVALID+ NULL	COMMENTS	DO THE VALUES NEED TO BE PROCESSED OR CLEANED?	IF YES, DESCRIBE NATURE OF PROCESSING OR CLEANING DONE.	IS IT A PII COLUMN? DOES IT (POTENTIALLY) NEED TO BE MASKED?	FINAL VARIABLE NAME	FINAL VARIABLE TYPE
COVID FILE MAR. 3, 2022	0%	0	0%	0	0%	0%	N/A	NO	N/A	NO
COVID FILE MAR. 3, 2022	0%	0	0%	0	0%	0%	N/A	NO	N/A	NO
COVID FILE MAR. 3, 2022	0%	0	0%	0	0%	0%	N/A	NO	N/A	NO
COVID FILE MAR. 3, 2022	0%	0	0%	0	0%	0%	N/A	NO	N/A	NO
COVID FILE MAR. 3, 2022	0%	0	0%	0	0%	0%	N/A	NO	N/A	NO
COVID FILE MAR. 3, 2022	65%	0	0%	0	0%	65%	N/A	NO	N/A	NO
COVID FILE MAR. 3, 2022	4%	0	0%	0	0%	4%	N/A	NO	N/A	YES
COVID FILE MAR. 3, 2022	4%	0	0%	0	0%	4%	N/A	NO	N/A	NO
COVID FILE MAR. 3, 2022	4%	0	0%	0	0%	4%	N/A	NO	N/A	NO
COVID FILE MAR. 3, 2022	0%	0	0%	0	0%	0%	N/A	NO	N/A	NO
COVID FILE MAR. 3, 2022	0%	0	0%	0	0%	0%	N/A	NO	N/A	NO
COVID FILE MAR. 3, 2022	0%	0	0%	0	0%	0%	N/A	NO	N/A	NO
COVID FILE MAR. 3, 2022	0%	0	0%	0	0%	0%	N/A	NO	N/A	NO
COVID FILE MAR. 3, 2022	0%	0	0%	0	0%	0%	N/A	NO	N/A	NO
COVID FILE MAR. 3, 2022	0%	0	0%	0	0%	0%	N/A	NO	N/A	NO
COVID FILE MAR. 3, 2022	0%	0	0%	0	0%	0%	N/A	NO	N/A	NO
COVID FILE MAR. 3, 2022	0%	0	0%	0	0%	0%	N/A	NO	N/A	NO
COVID FILE MAR. 3, 2022	0%	0	0%	0	0%	0%	N/A	NO	N/A	NO
COVID FILE MAR. 3, 2022	19%	0	0%	0	0%	19%	N/A	NO	N/A	NO
COVID FILE MAR. 3, 2022	0%	0	0%	0	0%	0%	N/A	NO	N/A	NO

APPENDIX  
2

# DATA PROCESSING TEMPLATE

(FULL VERSION AVAILABLE UPON REQUEST)

DATASET NAME	YEAR	FILE NAME	FILE TYPE	SHEET NAME	COLUMN NAME	COLUMN DATA TYPE	ENUM VALUES	VALID RANGE	NO. OF RECORDS	NO. OF NULL VALUES
COVID-19 OFFICIAL REPORT	2022	COVID-19 OFFICIAL REPORT	XLSB	SHEET1	NO.	INT	N/A	GREATER THAN OR EQUAL TO 0	80532	0
COVID-19 OFFICIAL REPORT	2022	COVID-19 OFFICIAL REPORT	XLSB	SHEET1	CASE NO.	STRING	N/A	N/A	80532	63895
COVID-19 OFFICIAL REPORT	2022	COVID-19 OFFICIAL REPORT	XLSB	SHEET1	ONSET OF ILLNESS	DATE	N/A	N/A	80532	656
COVID-19 OFFICIAL REPORT	2022	COVID-19 OFFICIAL REPORT	XLSB	SHEET1	DATE SEEN- ADMITTED	DATE	N/A	N/A	80532	5655
COVID-19 OFFICIAL REPORT	2022	COVID-19 OFFICIAL REPORT	XLSB	SHEET1	DATE SPECIMEN COLLECTION	DATE	N/A	N/A	80532	48
COVID-19 OFFICIAL REPORT	2022	COVID-19 OFFICIAL REPORT	XLSB	SHEET1	DATE OF RESULT	DATE	N/A	N/A	80532	47



DATASET NAME	% NULL VALUES	NO. OF INVALID VALUES	% INVALID VALUES	% TOTAL INVALID+ NULL	COMMENTS	DO THE VALUES NEED TO BE PROCESSED OR CLEANED?	IF YES, DESCRIBE NATURE OF PROCESSING OR CLEANING DONE.	IS IT A PII COLUMN? DOES IT (POTENTIALLY) NEED TO BE MASKED?	FINAL VARIABLE NAME	FINAL VARIABLE TYPE
COVID-19 OFFICIAL REPORT	0%	0	0%	0	0%	0%	N/A	NO	N/A	NO
COVID-19 OFFICIAL REPORT	79%	1	0%	0	0%	79%	N/A	NO	N/A	NO
COVID-19 OFFICIAL REPORT	1%	763	1%	0	0%	1%	N/A	NO	N/A	NO
COVID-19 OFFICIAL REPORT	7%	54759	68%	0	0%	7%	N/A	NO	N/A	NO
COVID-19 OFFICIAL REPORT	0%	0	0%	0	0%	0%	N/A	NO	N/A	NO
COVID-19 OFFICIAL REPORT	0%	0	0%	0	0%	0%	N/A	NO	N/A	NO

# PH 3D



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