

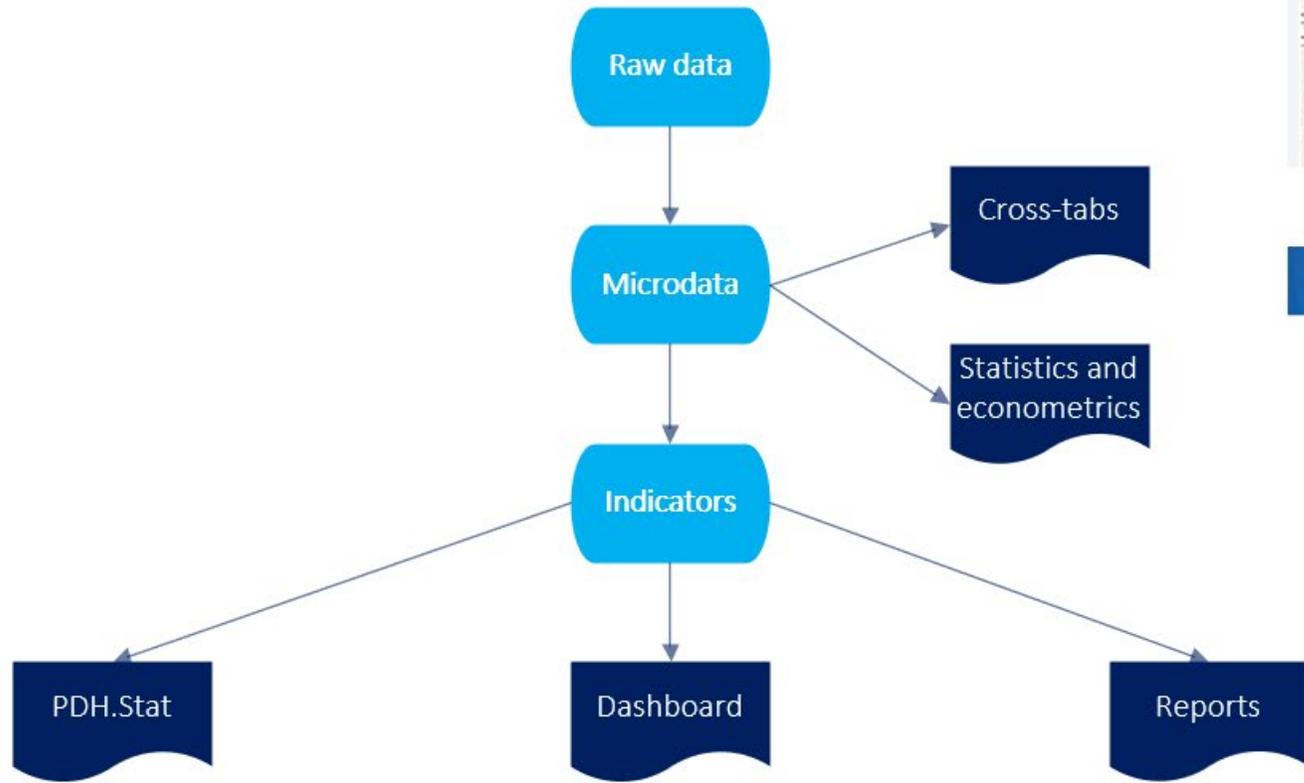
# Supporting Pacific statistics integration, innovation and dissemination

Peter Ellis, Director Statistics for Development

## Who is Statistics for Development Division – roles and teams

- Four regional roles
- Three technical teams:
  - Leadership, Governance and Use
  - Collections
  - Infrastructure and Dissemination
- c. 40 staff and long term consultants
- About half of aid for stats in the Pacific, and 20% of all stats resources





Variable	Value	Unit	Category
Age	15	Years	Demographics
Age	16	Years	Demographics
Age	17	Years	Demographics
Age	18	Years	Demographics
Age	19	Years	Demographics
Age	20	Years	Demographics
Age	21	Years	Demographics
Age	22	Years	Demographics
Age	23	Years	Demographics
Age	24	Years	Demographics
Age	25	Years	Demographics

**Coral surveys increase understanding of fisher patterns across three atolls in Kiribati**

*Journal of Environmental Management*, 2017, 180, 103-110

**Abstract**

Understanding the relationship between coral reef health and fisher behavior is essential for developing effective management strategies. This study conducted coral surveys on three atolls in Kiribati to assess the impact of fisher activities on coral reef health. The results show that fisher activities, such as trawling and the use of explosives, have a significant negative impact on coral reef health. The study also found that fisher behavior varies across atolls, with some atolls showing higher levels of coral reef degradation than others. The findings of this study have important implications for the management of coral reefs in Kiribati and other small island developing states.

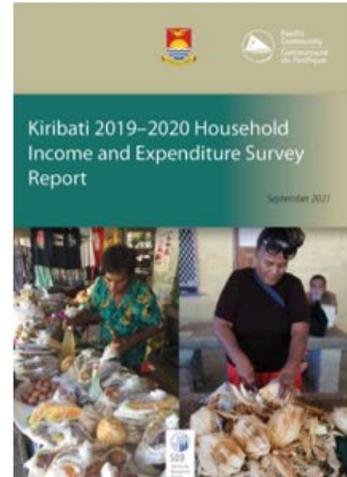
**Study Protocol: Interactive Dynamics of Coral Reef Fishes and the Nutrition Transition in Kiribati**

*BMJ Open*, 2017, 11(12), e012000

**Abstract**

The Kiribati population is undergoing a rapid nutrition transition, with a shift from traditional diets to more processed and high-calorie foods. This transition is associated with an increase in non-communicable diseases (NCDs), such as obesity and diabetes. The Kiribati government has implemented various interventions to address the nutrition transition, including the promotion of traditional diets and the regulation of food products. This study protocol aims to investigate the interactive dynamics between coral reef fishes and the nutrition transition in Kiribati. The study will use a mixed-methods approach, including surveys, interviews, and focus groups, to explore the relationship between coral reef health and nutrition. The findings of this study will inform the development of effective interventions to address the nutrition transition in Kiribati.

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Age	15	Years	Demographics
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Age	22	Years	Demographics
Age	23	Years	Demographics
Age	24	Years	Demographics
Age	25	Years	Demographics



# Three critical states of data

GSBPM process:

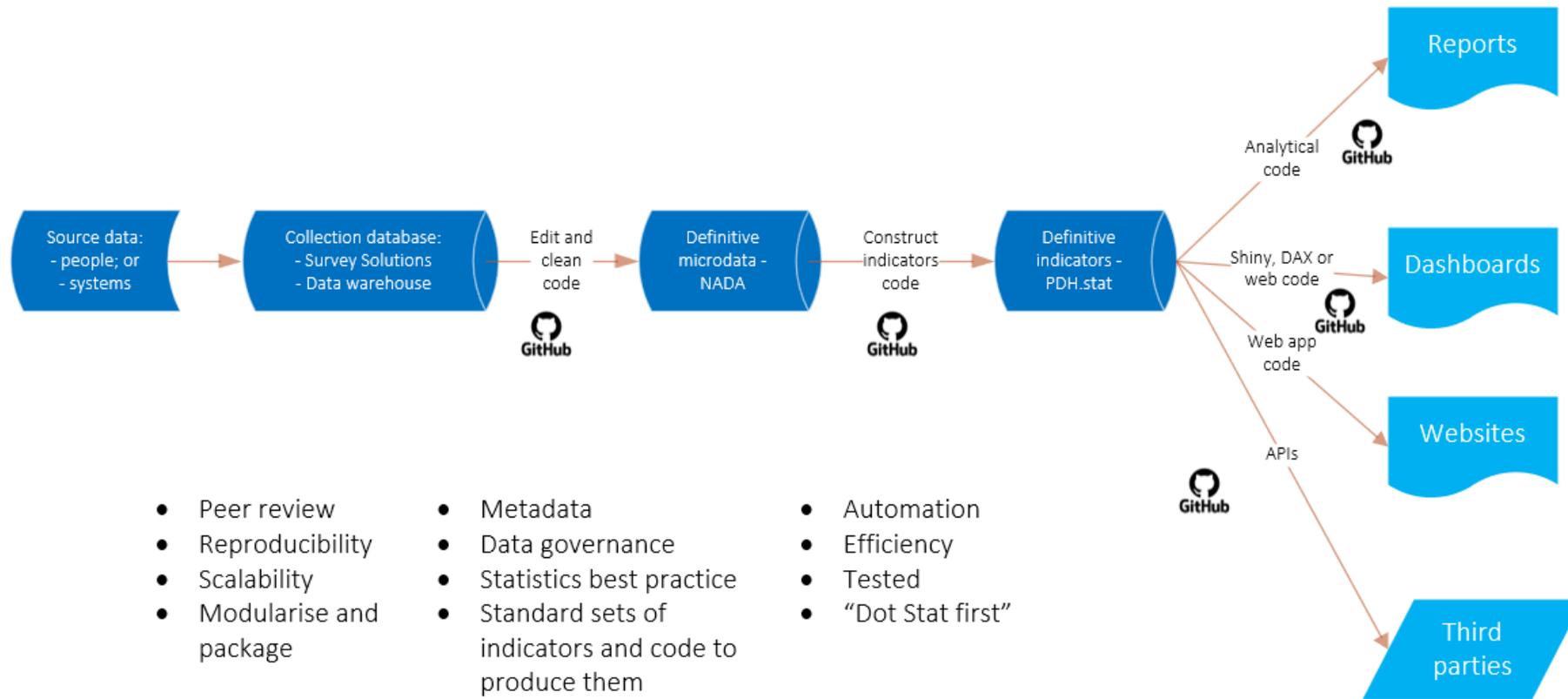
Collection

Processing

Analysis

Dissemination

Implementation system:



Implementation principles:

- |   |   |  |
|---|---|--|
| <ul style="list-style-type: none"> <li>• Peer review</li> <li>• Reproducibility</li> <li>• Scalability</li> <li>• Modularise and package</li> </ul> | <ul style="list-style-type: none"> <li>• Metadata</li> <li>• Data governance</li> <li>• Statistics best practice</li> <li>• Standard sets of indicators and code to produce them</li> </ul> | <ul style="list-style-type: none"> <li>• Automation</li> <li>• Efficiency</li> <li>• Tested</li> <li>• "Dot Stat first"</li> </ul> |
|---|---|--|

# Implementation within SPC

- Establish fundamentals of data dissemination infrastructure (2019)
- Dissemination dashboards linked to updating databases (2020+)
- Code-based data imports and processing (2020+)
- Establish analytics community (2022+)
- Introduce code version control (2023+)
- Systematic, mandatory peer review (2024+)
- Replace remaining Excel steps with code
- Indicators database embedded in the flow
- Code improvements (modular, packages, testing, integration, etc)

*In parallel to this – many projects that seek to turn specific data challenges into opportunities*

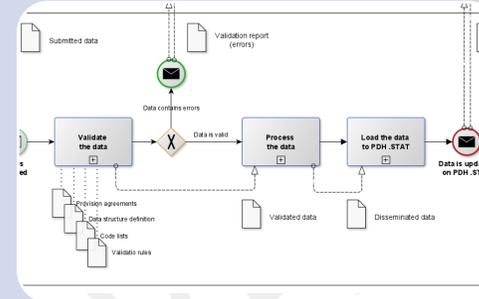
# Four live (or hopeful) projects...



Pacific Food and Beverage Trade

code	description	unit	quantity	value
1	Food description in the PHS	quantity in gram as purchased per household per day	71.422858	0.10755157
2	Cucumber, common, unpelleted, raw	kg	35.714285	0.21510313
3	Chick, fresh or frozen, raw	kg	30.357143	0.48020627
4	Fish, canned, composite, drained	kg	32.857143	0.3083450
5	Oil, composite	kg	14.422858	0.35850525
6	Peanut, raw	kg	135.714284	0.49020627
7	Cream, coconut, composite	kg	30.357143	0.2505356
8	Energy drinks, caffeine added, e.g. red bull, V	kg	321.422858	0.78071348
9	Cassava, raw	kg	107.142282	0.35850525
10	Highurt, composite	kg	26.789713	0.68033005
11	Fish, composite, raw	kg	142.93123	1.49403105
12	Prepared foods unspecified	kg	15.917365	0.15917365
13	Bread, loaf, from white flour	kg	150.000000	1.0249534
14	Lemonade, soft drink, regular	kg	107.142282	0.35850525
15	Onion, mature, peeled, raw	kg	71.422858	0.21510313
16	Butter, plain, salted	kg	31.857143	0.30216408
17	Egg, chicken, fresh, whole, raw	kg	37.714283	0.35694492
18	Chocolate, composite	kg	11.903058	0.50190728
19	Sweets, jelly fillies	kg	15.678971	0.34165003
20	Ris, black, long, unpelleted	kg	2.857143	0.17647505
21	Capsicum, composite, raw	kg	50.000000	0.88626208
22	Bread, loaf, from white flour	kg	250.000000	1.80666641

Harmonised food consumption data



PacCommTrade



National Data Portals in Fiji and Samoa

# Reflections and lessons

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- Databases take a **long time**
- There are many ways to mess up the **sustainability**
- **Project governance** and **management disciplines** are essential
- **Specialist IT support** is essential
- But so is **skilling up the statisticians** in the technology
- A **holistic approach** is essential
  - A nice dashboard needs an *indicator database*
  - Which needs a sustainable approach to *data updates and quality*
  - Which needs good *management of upstream data*
  - Which needs *data engineering* skills, tools and processes
  - And we also want *reproducible, good practice statistical processing and analysing*
  - Which needs *statistical coding* skills and tools and processes to support it
- There are potentially huge pay-offs in this approach for your next integration, innovation or dissemination
- But the actual technical build is not the part that consumes time, it is **specification, design, permissions, stakeholder engagement**