

**TUVALU HIES**  
**PHASE 1 DATA QUALITY ASSESSMENT**  
**24 FEBRUARY 2016**

**1. INTRODUCTION**

This report documents the results of the Tuvalu HIES phase one data quality assessment. The results were presented and discussed with Tuvalu Central Statistics Division staff, the Vaitupu HIES supervisor and the Funafuti HIES supervisors and enumerators from 11 to 18 February 2016. This report is written to document the results of the data review, discussions and action items required.

The report is set out in 4 main sections, including:

1. The introduction, which you are reading now.
2. Summary and recommendations – a summary of key recommendations.
3. Data quality assessment – an analysis of data collected to date, focusing on areas where improvements can be made.
4. Discussions and clarifications – a summary of the main discussions held during the workshop and a summary of the clarifications provided and decisions made.

In addition to the 4 sections described above, the report provides a number of appendices, including:

1. Appendix 1 – a comprehensive list of tasks to be completed by Tuvalu Central Statistics Division and the field work teams. These tasks should be completed as a matter of urgency.
2. Appendix 2 – a list of action items for SPC to complete. Items 1 and 2 will be completed during the next data entry system update and items 3 and 4 were completed by the time of writing.
3. Appendix 3 – a list of linkages in the questionnaire. Field workers should familiarise themselves with the linkages so that they can be identified them in the field to avoid errors and data inconsistencies.
4. Appendix 4 – a currency conversion reference sheet. If field workers are comfortable with the use of this, foreign currencies can be converted into Australian dollars in the field so as to avoid the potential incorrect values.

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## **2. SUMMARY AND RECOMMENDATIONS**

### **2.1. Project management**

Tuvalu HIES is running according to schedule – the sampling strategy, methods, collections and data management practices are all being implemented according to schedule. It is recommended that:

- i. The enumerator and supervisor agendas be adopted and implemented such that field operations can be monitored and to provide an indication as to why, for example, there is a trend of underreporting in the diary.
- ii. The household listing and replacement form be adopted and collected by Tuvalu Central Statistics Division in order to monitor replacements.
- iii. Reduce the number of replacements (where possible) to avoid missing certain demographics in HIES.
- iv. Make preparation for Nanumea recruitment, household listing and enumerator training in order to ensure that HIES implementation remains on schedule.
- v. Complete the remaining household listings (Nanumea, Nunitao and Nanumaga) comprehensively and aim to avoid listing vacant households so as to reduce the number of replacement households.

### **2.2. Data entry**

Data entry timeliness is improving over time. Funafuti team 2 has an exceptional record of data entry timeliness. Vaitupu and Funafuti team 1 have encountered technical and team related difficulties, which delayed data entry timeliness, but it appears that these difficulties have been rectified. Another issue with respect to data entry is the use of different laptops in different enumeration domains. There is a need to have one laptop per team (or one Funafuti laptop and one outer island laptop) in order to ensure that changes are made to one data set only. In regards to data entry, it is recommended that:

- vi. A new data entry operator is recruited for Funafuti team 2 (replace the person who recently resigned) in order to relieve the work load of the current data entry operator (potential for error when rushed) and to eliminate risk that the one remaining operator may, for some reason, no longer be available to continue working under the HIES project.
- vii. Transfer all Vaitupu data files to 1 computer and continue using this computer for Vaitupu and outer islands. Transfer all Funafuti data files to 1 computer (or one per team) and continue using this computer for the remainder of Funafuti field operations. Refer Appendix 1(J) for instructions on how to do this and section 4.6 discussion on this.
- viii. Encourage enumerators to increase the amount of detail collected in the item description in the diary.
- ix. Complete action items A to H in Appendix 1 and item J (as per above).

### **2.3. Household diary**

The household diary is the most important source of data in HIES. There is a notable reduction in the number and value of items reported in the diary over the 14 day diary period, especially in Vaitupu. This needs to be rectified and it is therefore recommended that:

- x. Supervisors accompany enumerators on an increased number of visits to ensure quality control and that the diary is comprehensively checked. This practice is supported by use of the supervisor and enumerator agenda (recommendation i. above).
- xi. Households are provided with an incentive (e.g., prize) to complete the diary accurately and comprehensively.
- xii. Enumerators continue to visit households at least every other day and, ideally, more frequently.
- xiii. Households are encouraged to provide more detail in the item description section of the diary.

## 2.4. Completion of modules

There is only one instant where a module is partially complete and no occurrences where a module is incomplete. This is an excellent achievement. There are however, a number of inconsistencies in the diary and the linkages (refer Appendix 3) need to be identified and followed more closely. There is the potential that the Vaitupu team and Funafuti team 2 are underreporting in the modules. There seems to be a reduction in the number of expenditure items reported in Modules 2 and 3 from Vaitupu round 1 and 2. Funafuti team 2 consistently reports lower expenditure items and values than Funafuti team 1. There are 4 households who reported no income in Module 4, which is a high number and is improbable. It is recommended that:

- xiv. Ensure that Module 4 is completed comprehensively to capture all cash income.
- xv. Supervisors accompany enumerators on an increased number of visits to ensure quality control. Enumerators are to be encouraged to take their time to comprehensively go through each Module so that no items are missed and so the respondent doesn't feel pressure to rush their response.
- xvi. The discussion and clarifications section of this report is reviewed and understood by all field staff.
- xvii. The comments made in the data quality assessment section of this report are reviewed and understood by all field staff.

## 2.5. SPC's technical support

To date, SPC has supported implementation of Tuvalu's HIES by providing assistance in developing the sampling plan and associated budget, supporting questionnaire development, delivery of Funafuti training and training materials, development of the data entry system and conducting interim project reviews. It is recommended that SPC:

- xviii. Provides a more comprehensive training that includes field work trials and review prior to field operations.
- xix. Reviewing certain areas of the questionnaire, including business income (refer section 4.1 of this report), cash contribution to special occasions (refer section 4.2), how expenses and income of household members working overseas are collected (refer section 4.3), the structure of the property and transfer income section (refer section 4.8) and wording of diary section 5.3 (to include government/donor gifts).
- xx. Pacific COICOP is continually updated.
- xxi. The data entry system, including error checks, continues to be refined.
- xxii. Continues to provide periodic interim data reviews, either in-country or via email.
- xxiii. Action items in Appendix 2 are completed.

## 2.6. Overall review

Tuvalu HIES is being implemented according to plan and the data quality generally appears to be consistent and sound. There is an urgent need for improved monitoring and support of households in completing the diary, especially in Vaitupu and Funafuti team 1 – this is the most urgent of the required adjustments. In addition to this, the issue of mixed data sets being on multiple laptops needs to be rectified as a matter of urgency and before the action items listed in Appendix 2 are implemented.

Funafuti team 2 (and perhaps Vaitupu) need to ensure that the modules are completed comprehensively. There appears to be diary drop-off and also module drop off in terms of number of income/expenditure items and value reported. This needs to be rectified so module underreporting does not occur.

For continued timeliness of the project, preparation needs to be made for field staff recruitment, household listing and training in Nanumea.

It is recommended that another review is conducted after Nanumea round 1.

### 3. DATA QUALITY ASSESSMENT

#### 3.1. Project management

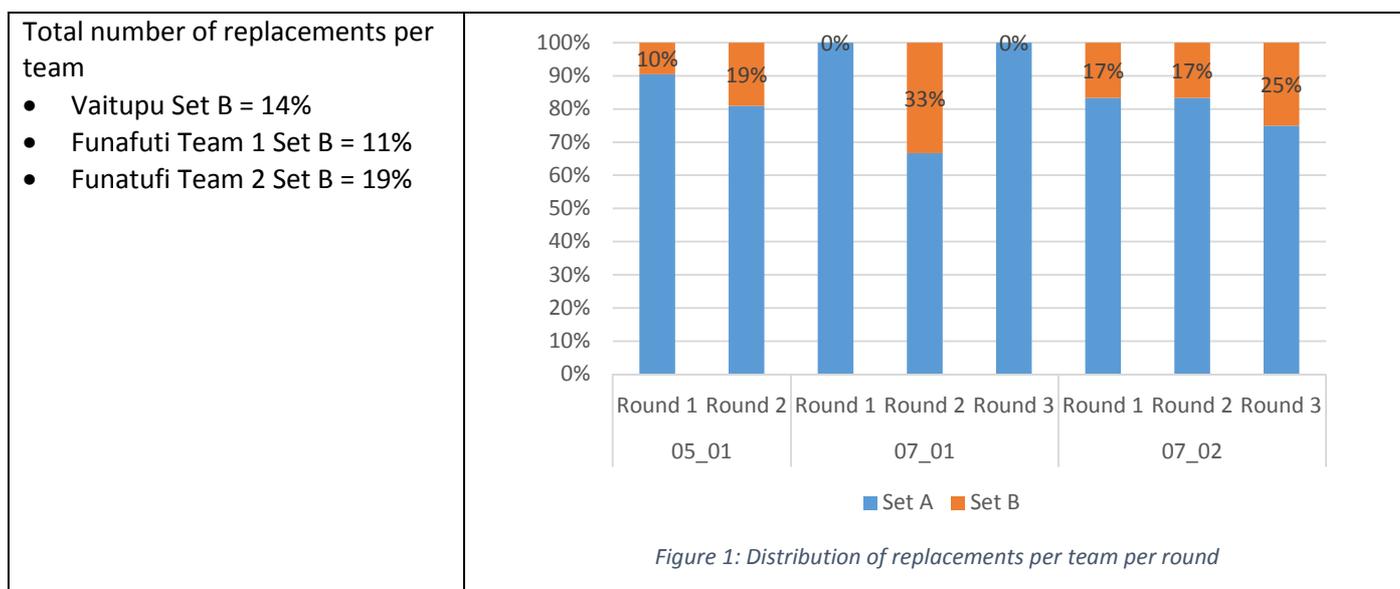
- As at 3 February 2016, the following has been achieved:
  - Funafuti rounds 1 to 3 (of 16) completed and all data entered and backed up.
  - Vaitupu rounds 1 and 2 (of 6) completed and all data entered.
  - Total households surveyed = 114 (16% of total).
    - Funafuti = 72 households (19%).
    - Vaitupu = 42 (33%).
  - Tuvalu HIES is on-track with respect to the enumeration plan.

##### 3.1.1. Survey materials (questionnaire, agenda, household listing form)

- In terms of survey materials, it is noted that all completed questionnaires are being held in Funafuti by the Central Statistics Division. The Vaitupu questionnaires are periodically shipped to Funafuti when the opportunity presents itself.
- In terms of enumerator and supervisor agendas, it is noted that Central Statistics Division did not adopt the recommended form and instead chose to use a 'control form'. The control form allows for Central Statistics Division to monitor what's been completed, however it is insufficiently detailed to determine how frequently the enumerators visit households to conduct interviews and to check the diary. Given that there appears to be some respondent fatigue in completion of the diary, it is recommended that the enumerator agenda be adopted.
- The household listing and selection form appears to be used by the teams, however it is not being returned to Central Statistics Division. This form is important to understand why, in the case of replacement, a household from Set A is replaced. The sample is randomly selected and to provide support for the random nature of household selection, it is important to document why primarily selected households (Set A) were replaced (Set B). It is recommended that the household listing and selection form be adopted. Appendix 1(I) requests information on the households that were replaced to date in order to maintain a record of reasons why replacements occurred.

##### 3.1.2. Replacements

- The following replacements have occurred:



- The number of replacements are quite high. It is noted that a large number of Chinese households were replaced due to language barriers, which should be avoided. This is understandable, but at the same time it is problematic as the survey will miss economic data from this demographic. All attempts should be made to minimise the number of replacement households in the survey. It is also noted that a large number of replacements, especially in Vaitupu, are the result of the household being vacant. It is recommended that

the household listing for the remaining outer islands (Nanumea, Nanumaga, Niutao) is completed accurately to avoid a high number of replacements due to households being vacant.

- There is 1 questionnaire that is ‘partially completed’ and none that are ‘incomplete’. This is an excellent result and the enumeration teams should do their best to continue this trend.

### 3.2. Data entry

- It is noted that the Vaitupu team had some technical difficulties in entering data during round 2 and that Funafuti team 1 lost their data entry operator (resigned). As such, the results below are inclusive of these problems.
- Figure 2 shows that Funafuti Team 2 performed exceptionally in terms of data entry timeliness, with all modules entered, on average, one or two days after module interviews. Funafuti team 1 had significant delays in Round 1 and 2, however it is noted that this is improving. Funafuti team 1 should be encouraged to complete data entry in a timelier manner such that in-round error checks and amendments can be made. Aside from the technical difficulty that the Vaitupu team had in Round 2, the Vaitupu team is performing well with respect to data entry timeliness and this should continue.

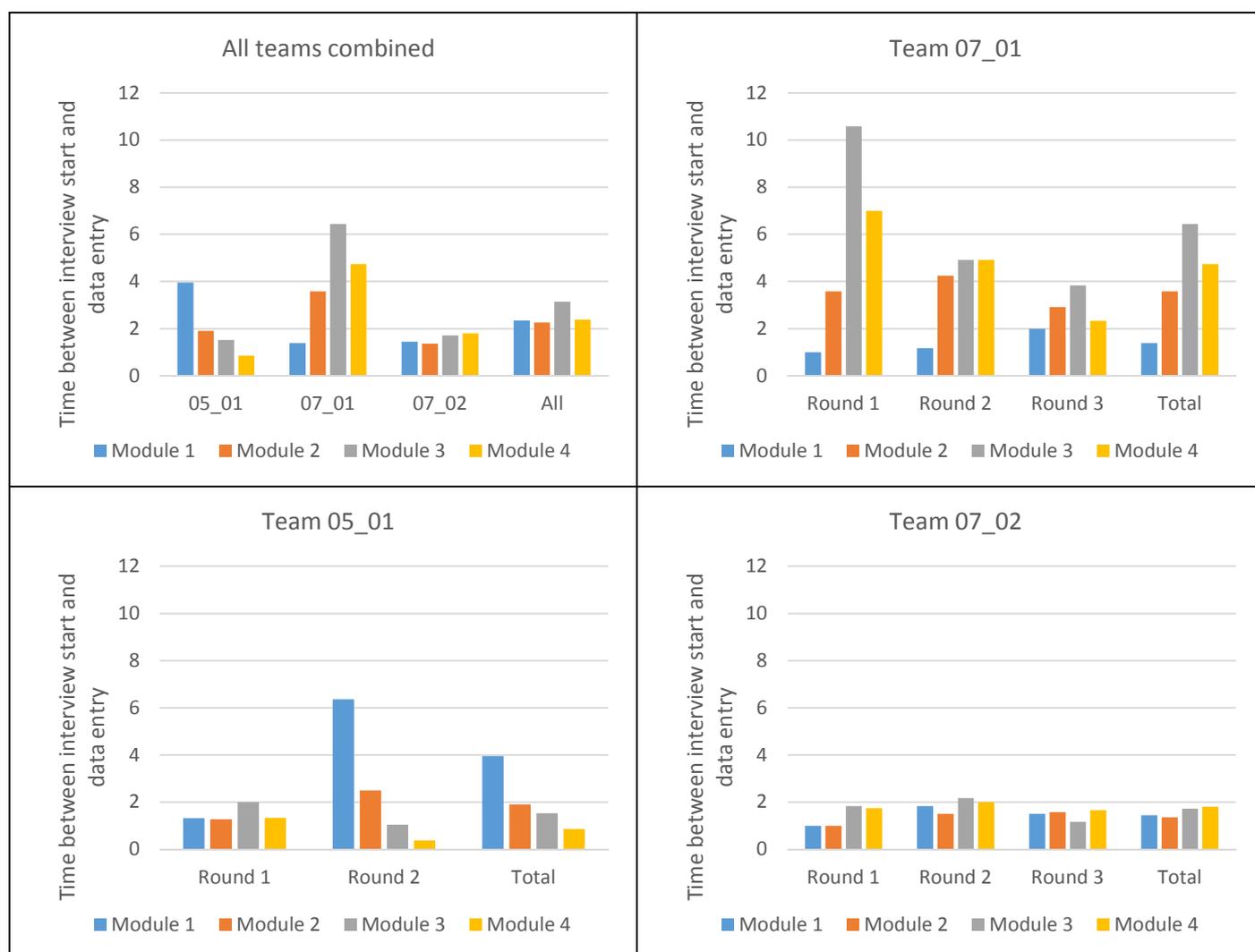


Figure 2: Number of days between module interviews and data entry by team, module and round

- It is important that the descriptions provided in the diary are replicated when entered into the data entry system (noting that they are being translated). The descriptions of products in the data entry system should be as detailed as the enumerator/household provides. For example, if the household states that it purchased reef fish, then ‘reef fish’ should be entered into the system, not just ‘fish’.
- In the diary, there were numerous ‘missing’ COICOP codes. It is noted that this is both an error of SPC and of the data entry operator. SPC will update the COICOP list and the data entry operator is encouraged to

review the discussion section below (section 4.9), which provides some of the codes that were consistently missing.

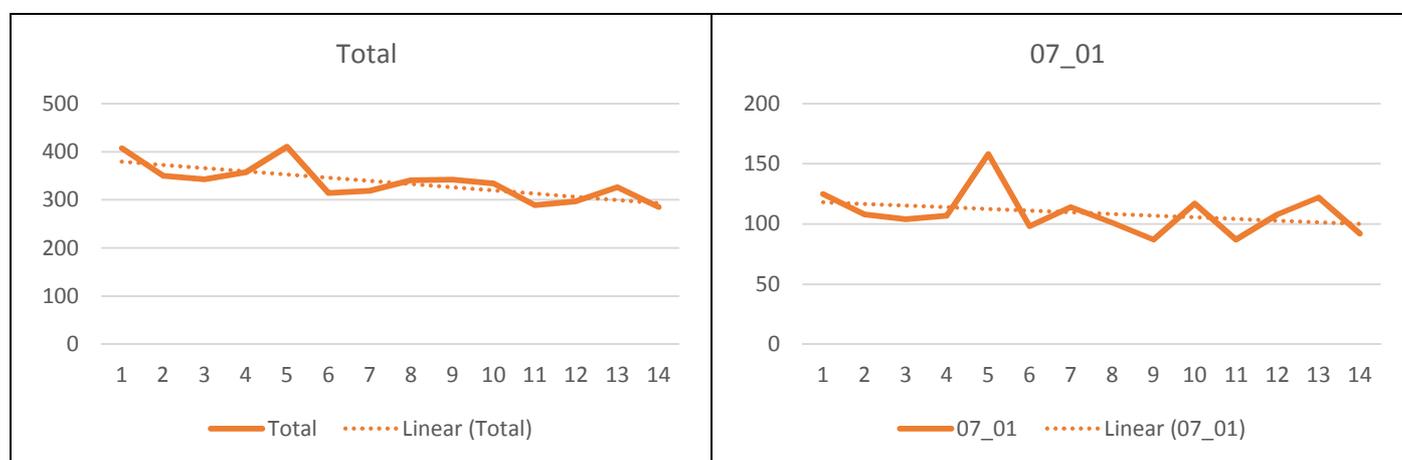
- There were a few occasions where values seemed unusual, so the data entry operator must ensure that values are entered accurately, or that unusual figures are double checked with the enumerator/household.
- There were some occasions where the enumerator didn't follow a skip pattern, so the data entry operator overrode the skip pattern in the system and entered data where it is not necessary. This is an unnecessary practice and all skips should be followed, even if the enumerator accidentally fails to follow the skip patterns correctly.

### 3.3. Diary supervision

- Every household interviewed reported in the diary – a good result.
- Households should be encouraged to provide more detail in their description of items. For example, 't-shirt' is insufficiently detailed as it should be 'men's t-shirt'. 'Milk', for example, is also insufficiently detailed and should be 'milk-carton', or 'milk-powder'. It is often useful to include the brand. This is to allow the selection of a relevant basket of good in formulating and monitoring CPI.
- It is important to check that the quantities and amount paid (or value) of items make sense when checking the diary. There was one case where a \$34.50 carton of chicken was priced at \$3,405, which significantly skews the results.

#### 3.2.1. Respondent fatigue

- Across all teams, it is apparent that there is a significant reduction in the number and value of items reported in the diary. That is, there are more items reported earlier in the diary than there are later in the diary, resulting in an overall declining trend in the number and value of household goods and services purchased and home-produced per day.
- It is estimated that the 'drop off' amounts to a value of \$70 per household over the 2-week diary period. This amounts to \$1,820 per household per year. As we are targeting 720 households (about 50% of all households in Tuvalu), if the current diary 'drop-off' trend continues it will result in a \$2.62 million in under reporting of total household expenditure (about 8% of total household expenditure in the 2010 HIES).
- The diary drop off is significant, especially in Vaitupu, and it needs to be rectified by increased visits to households to check the diary – at least one visit every other day for the entire diary period – and by offering incentives to households to enthusiastically participate.
- Every purchase and home-produced good needs to be reported for every household member, even if it is small. To put it into context, if every household that is interviewed underreports by \$1 per day, this results in underestimation of total annual household expenditure in Tuvalu by \$525,000.
- To ensure the accuracy of household consumption expenditure estimates, it is extremely important that the current trend of diary 'drop-off' is rectified through improved field management and increased visits to households.



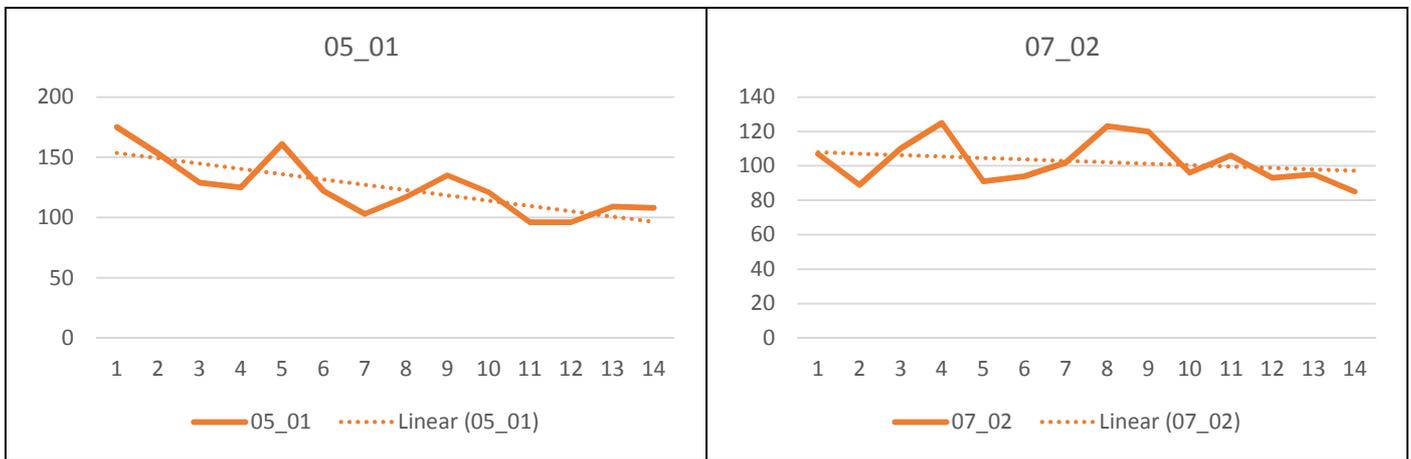


Figure 3: Number of items reported per diary day per team

- Figure 3 presents the total number of items reported per dairy day for all teams (top left), Vaitupu (bottom left), Funafuti team 1 and 2 (top and bottom right respectively).
- Overall, there is a reduction in the number of items reported per diary day, which indicates respondent fatigue and lack of enumerator follow up with the households. Across all rounds to-date, there is a reduction from around 380 items reported on Day 1 to around 290 days reported on day 14. A significant drop-off.
- The Vaitupu team has the most significant drop-off. On day 1, Vaitupu reported around 150 items on day 1, while on day 14 it was less than 100. This is one-third reduction and it needs to be better managed.
- The Funafuti teams had a lower drop-off, yet still significant. Team one fell from 120 to 100 items per day over the 14-day period, while team 2 fell from 110 to less than 100 items per day over the 14-day period. The Funafuti teams are performing quite well, but there is still room for improvement and it is important that improved household monitoring is achieved.

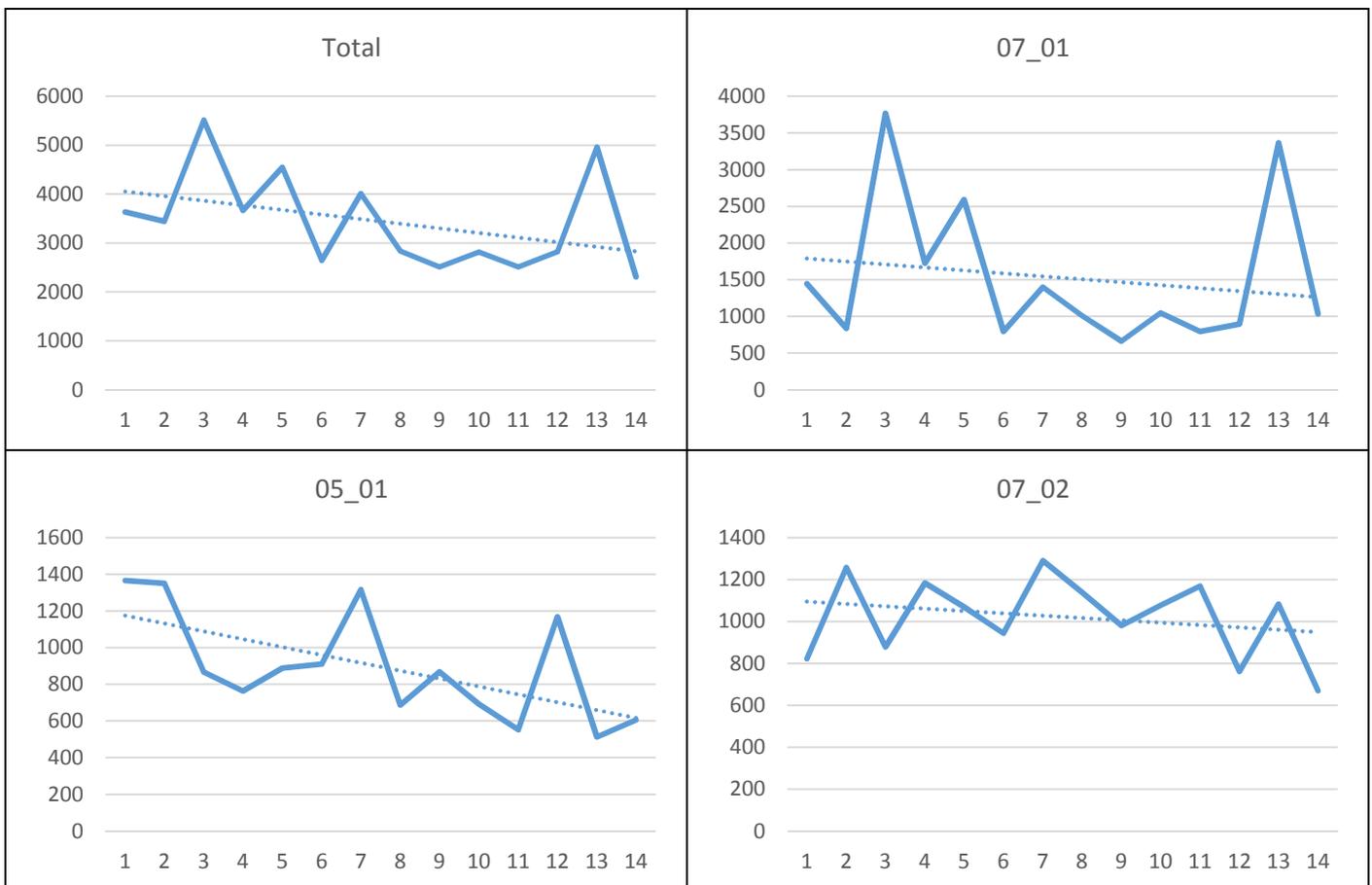


Figure 4: Total reported value of purchases and home produced goods per diary day per team

- Figure 4 presents the total value of items reported per dairy day for all teams (top left), Vaitupu (bottom left), Funafuti team 1 and 2 (top and bottom right respectively).
- Overall, there is a reduction in the value of items reported per diary day, which indicates respondent fatigue and lack of enumerator follow up with the households. Across all rounds to-date, there is a reduction from around \$4,000 in purchases/production reported on Day 1 to around \$2,800 reported on day 14. A significant drop-off.
- The Vaitupu team has the most significant drop-off. On day 1, Vaitupu reported around \$1,200 in purchases/production on day 1, while on day 14 it was around \$600. This is a 50% reduction and it needs to be better managed.
- The Funafuti teams had a lower drop-off, however it is still significant. Team one fell from \$1,800 to \$1,300 value per day over the 14-day period, while team 2 fell from \$1,100 to less than \$1,000 per day over the 14-day period. The Funafuti teams are performing quite well, but there is still room for improvement and it is important that improved household monitoring is achieved.

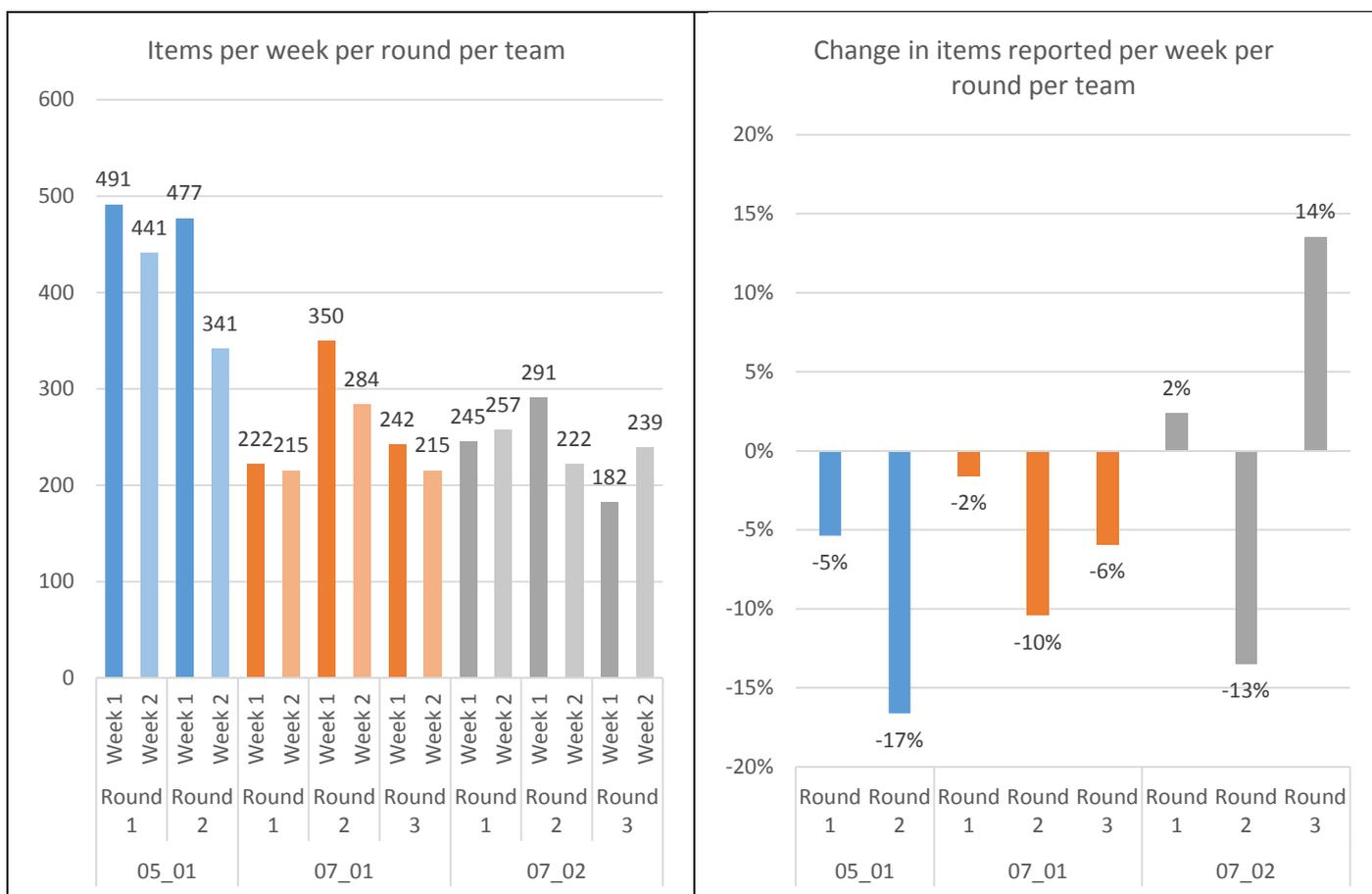


Figure 5: Difference between the number of items reported per week per round per team (# and % change)

- Figure 5 compares the number of items reported per diary week per round per team (left) and the % change between week 1 and 2 for each round and team (right).
- Looking at Vaitupu, it can be seen that there is a 5% reduction from the number of items reported in week 1 compared to week 2 in Round 1. In round 2, it was a larger reduction of 17% between diary week 1 and diary week 2. This is a significant drop-off.
- For Funafuti team 1, there is a drop off in all three rounds when comparing number of items reported in week 1 with week 2. Round 1 had a 2% drop-off and rounds 2 and 3 had a drop-off of 10% and 6% respectively. The overall trend for Team 1 is that week 2 reports less items than week 1.
- Of the 3 teams, Funafuti team 2 seems to be performing best with respect to diary management and household monitoring. It is however emphasised that households should still be closely monitored.

## Module completion

### 3.3.1. Module 1

- There were numerous occasions where activity (occupation) and industry codes were coded as 'missing' in Section 1.2. To assist with improving this, a list of missing codes and suggested searches is provided in Appendix 1(E) and Appendix 1(F).
- The enumeration team should make the corrections detailed in Appendix 1(E) and Appendix 1(F).
- There are some occurrences where the number of hours spent doing the main activity is less than the number of hours spend on the secondary activity. This is OK and it was recommended during the training that any waged paying job should be listed of main, irrespective of hours worked, however enumerators should take note of occasions when hours spent doing secondary activities are greater than hours spent doing the main activity and this should be considered when allocating main and secondary activities. Generally, the main activity (i.e., most hours worked) should be listed first.

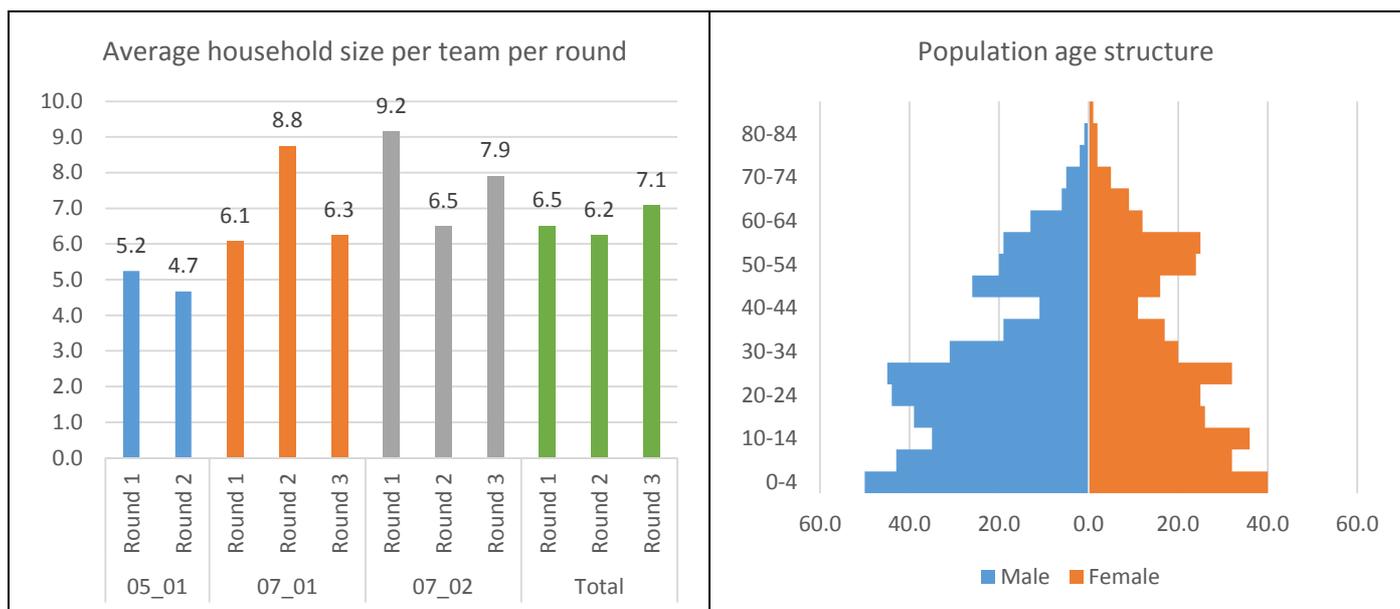


Figure 6: Average household size per team per round (left) and total population age structure (right)

- The 2012 census reported an average household size in Vaitupu, Funafuti and Tuvalu as 7, 7 and 6 respectively. The HIES results somewhat correspond with these figures, which supports the validity of the demographic data collected in HIES to date (Figure 6, left).
- Although the sample is currently too small to give statistically significant comparisons, the sex ratio of the population to date is 1.22. The 2012 census sex ratio was 1.05.
- Again, the sample size is too small to make meaningful analysis, however the population age structure of HIES to-date somewhat resembles that from the 2012 census. This is supported by a dependency ratio from HIES of 65.3 compared with 60.6 from census.

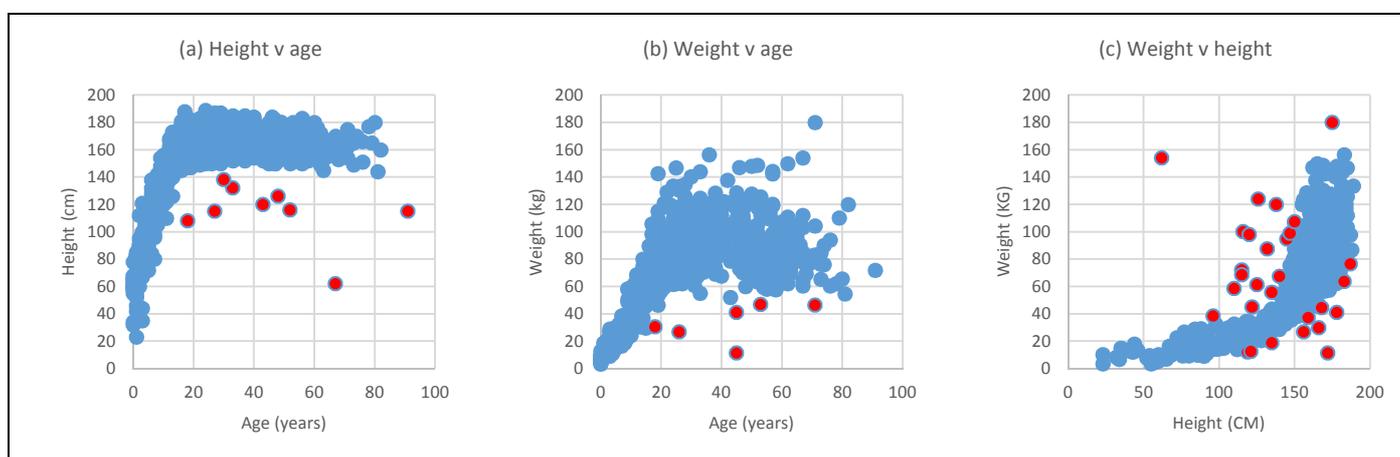


Figure 7: Anthropometric data comparison: (a) height v age; (b); weight v age; (c) weight v height

- The anthropometric data generally followed the expected trend when compared with the age of the respondents. There are, however, a number of presumed outliers (highlighted in red) where the data do not intrinsically make sense.
- It is important the enumerators use the tape measure for height and the scales for weight and that the data are entered in the appropriate units (cm and kg for height and weight respectively).
- Appendix 1 (B) lists some of the persons who are considered outliers and the questionnaire, or household, should be consulted to validate the data on system.

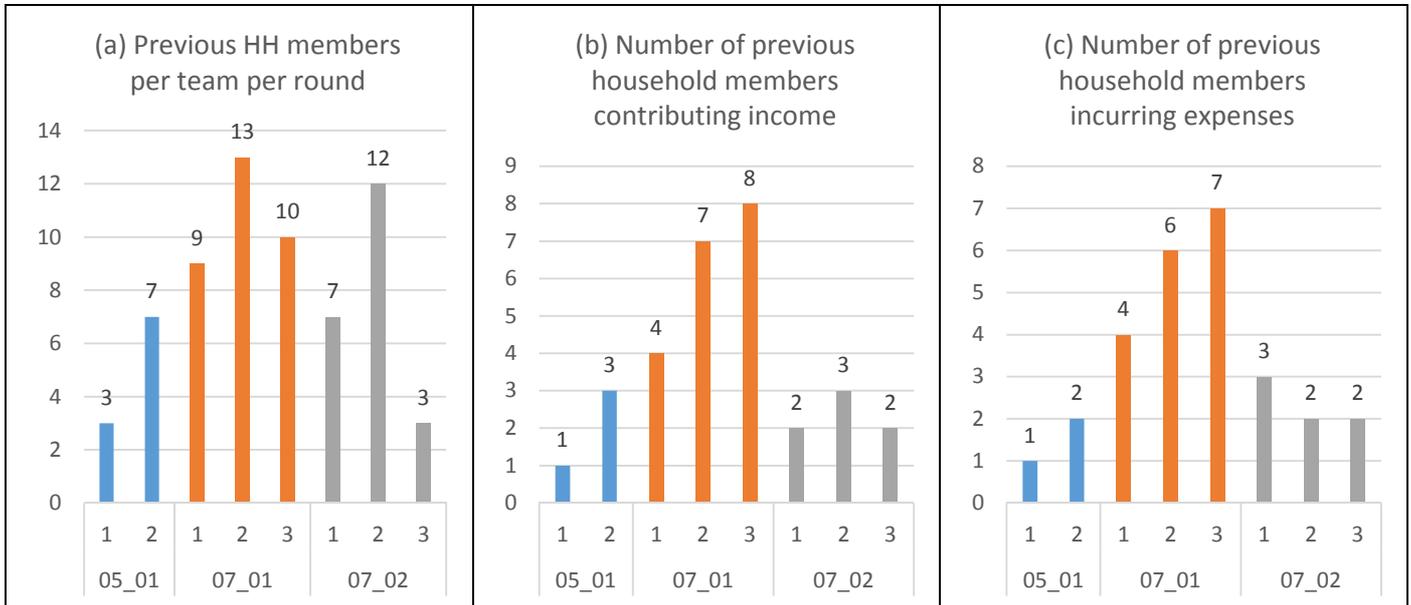


Figure 8: Number of previous household members in total (a), number contributing income (b) and number incurring expenditure (c) per team per round

- There is not a lot that can be said about Figure 8, however this is the beginning of a common trend throughout the modules where Funafuti team 2 consistently reports lower occurrences of income and expenditure.
- There are a number of occurrences where an income or expenditure is declared by the previous household member, but the income/expenditure does not appear in Modules 3 or 4. This is problematic as income and expenditure will be underreported. Refer to the Appendix 3 for a list of linkages.

### 3.3.2. Module 2

- There were a number of occasions where the household is connected to the electricity grid, uses gas for cooking, uses kerosene for lighting/cooking, has a landline phone, has internet at home and has a paid cable/satellite TV yet no expenditure for these items were recorded. These are inconsistencies in the data and enumerators need to identify these potential linkages to prompt the household.
- There were a number of occasions where the main source of lighting and cooking is listed as the same as the secondary source. For example, I use gas for cooking as main and secondary source. This is incorrect and if the household only has one source, then 'none' should be the response for the second source.
- There were a couple of occasions (7054 and 7099) where rent is paid by the household, but not the full rent is paid (i.e., 20213 = 2), but the full rent declared in 20214 is the same amount as the rent paid in 20212. For example, this is like saying I pay \$100 in rent per month, but I do not pay the full rent and the full rent is \$100 per month. Doesn't make sense. Make sure that enumeration teams follow the skip patterns consistently.
- There were some occasions, especially in Vaitupu, where the value of goods gifted (non-cash goods) were recorded in the cash contributions to special occasions. This will lead to double counting of expenditure and should not be done. Only record cash gifts in Section 2.9. Refer to the discussion section 4.2. below.

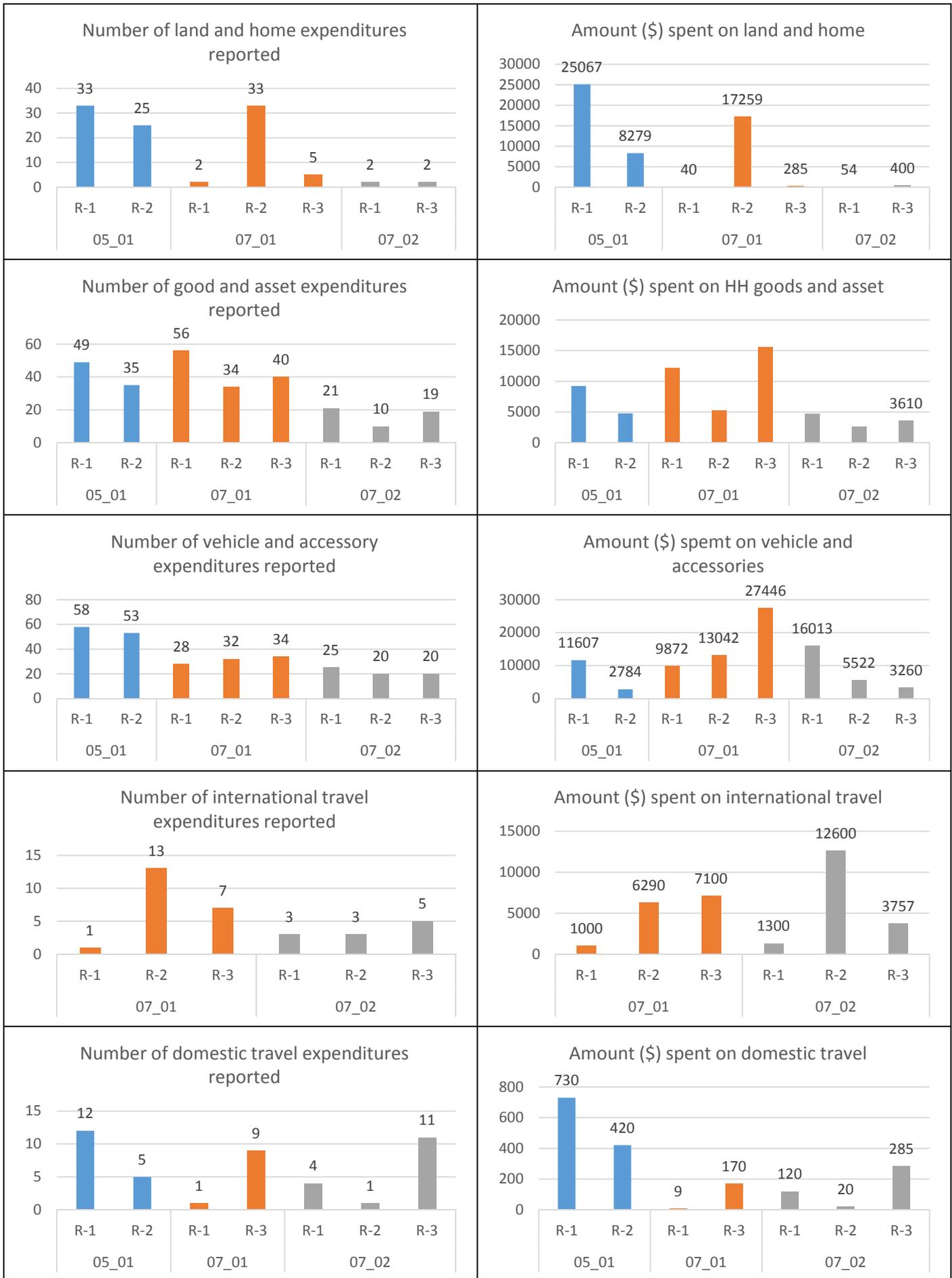


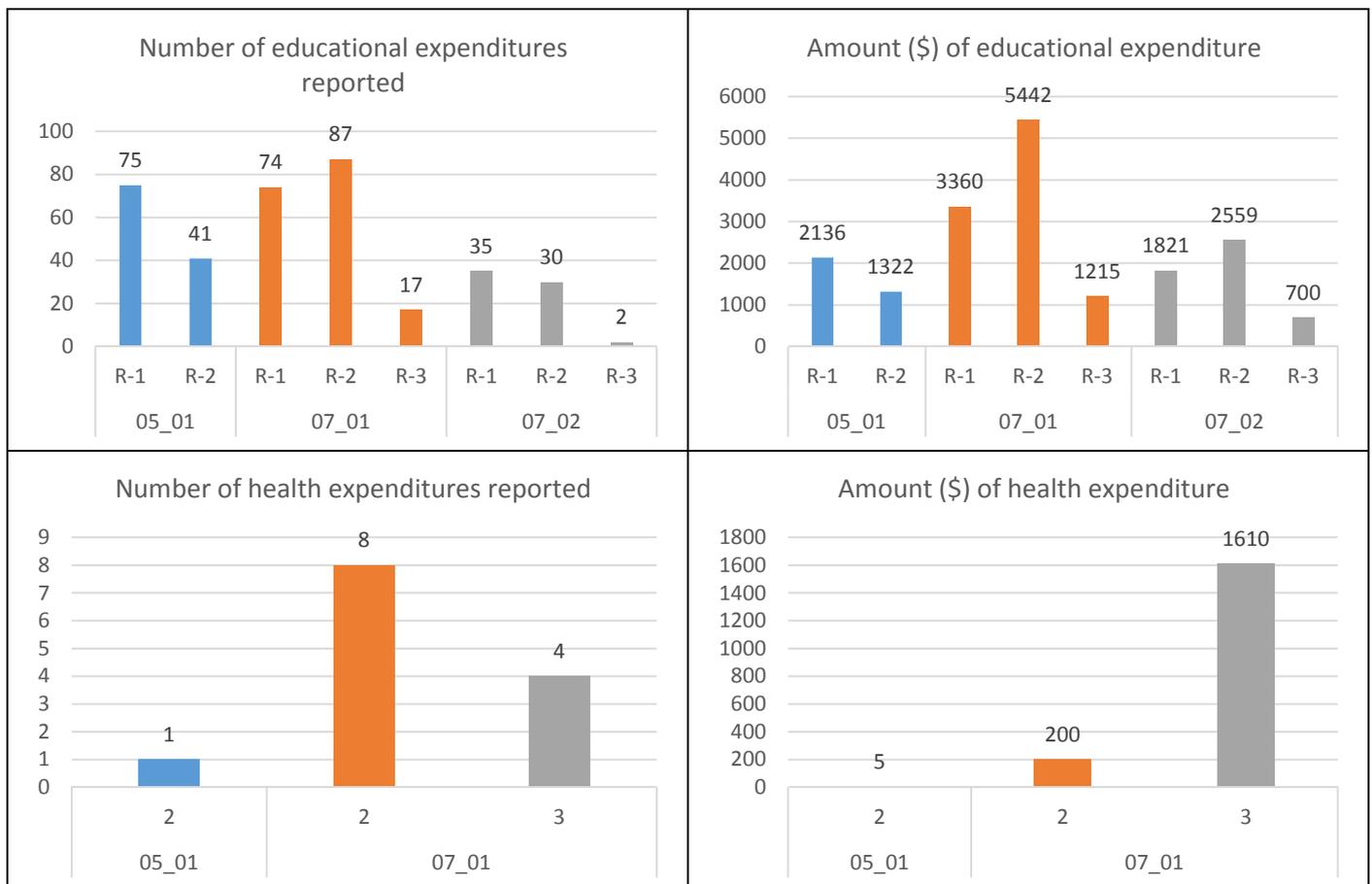


Figure 9: Number of expenditure transactions reported by Module 2 section and total value of these transactions by round and team

- Figure 9 shows that Funafuti Team 2, in most cases, reports fewer transactions and lower value than Funafuti team 1. This could possibly be a function of team 2 surveying lower income households (who would have lower expenditure), but it could also be the result of enumerator fatigue or a want to rush through the interview.
- To ensure that it's not the latter, Team 2 is encourage to take more time interviewing the household to ensure that all questions are asked comprehensively and to ensure that the respondent doesn't feel rushed or pressured to move forward quickly. In addition to this, it is recommended that the team supervisor (and the HIES manager, if deemed necessary) accompanies the enumerators to more interviews to maintain data quality and ensure that it's fully comprehensive.
- It's also notable that the Vaitupu team generally reported fewer items and value in Round 2 than in Round 1. Again, this could be a function of the socioeconomic status of the households surveyed in Round 2, but it could also be a result of enumerator fatigue. It is recommended that the supervisor accompany the enumerators to more visits to ensure that data quality is maintained.

**3.3.3. Module 3**

- It is acknowledged that the system error prevented completion of the alcohol and tobacco use section (30602 to 30605) for households that did not have any associated expenditure, however this information should have been entered into the system. Appendix 1(C) provides a list of the households where these data need to be entered into the data entry system. The system has been updated to avoid this issue going forward.
- There were numerous occasions (7094, 5035, 7002, 7059) where previous household members were declared to have incurred educational expenditure in Module 1 (10608), yet no expenditure was reported in Section 3.1 of Module 3 under person ID 60. This is an inconsistency in the data (Refer linkages, Appendix 3).



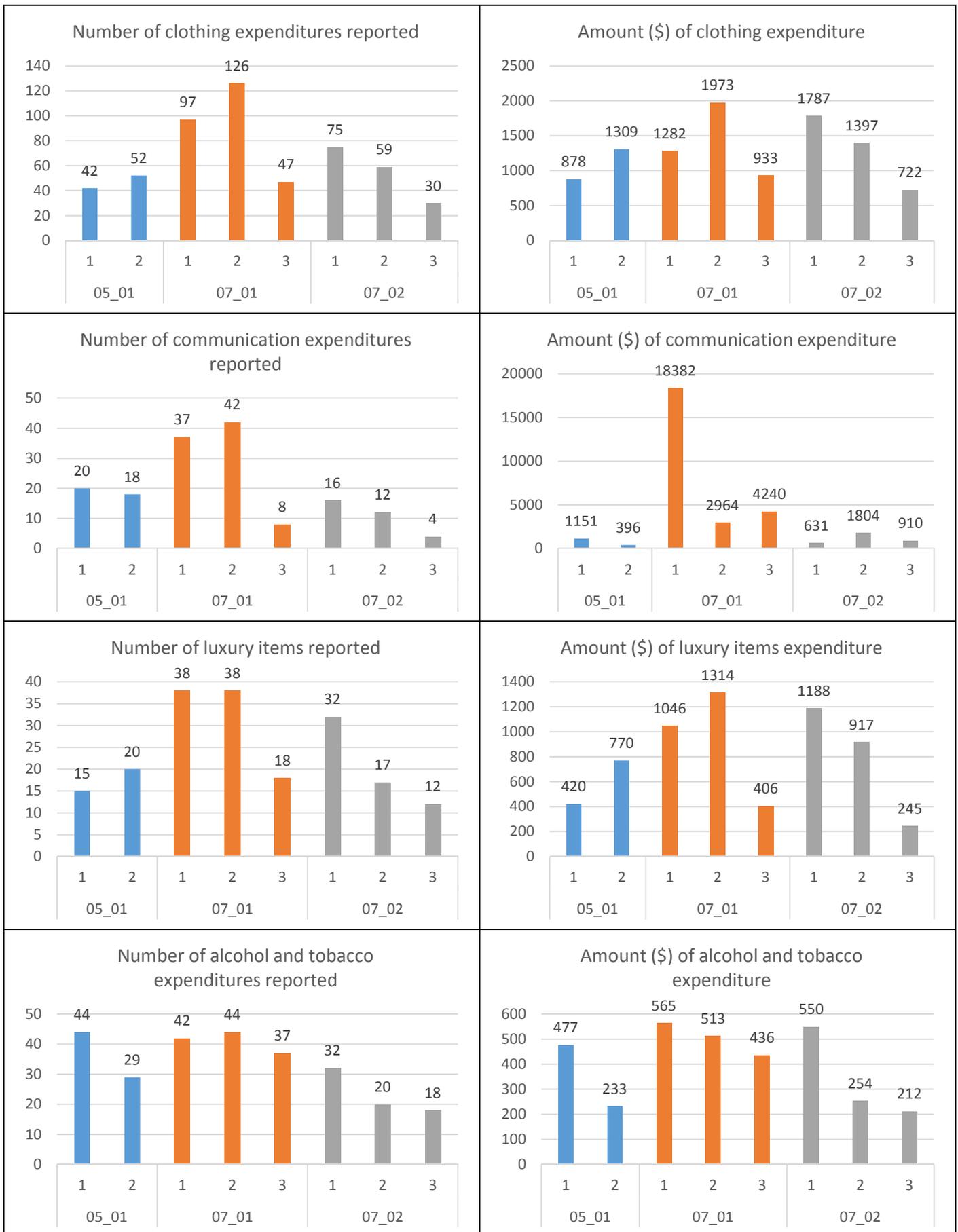


Figure 10: Number of expenditure transactions reported by Module 3 section and total value of these transactions by round and team

- Figure 10 demonstrates that, again, Funafuti team 2 consistently reports lower expenditure by items and value than Funafuti team 2. Again, this could be the result of enumerator fatigue or the enumerator rushing through the interview. Improved supervision and encouraging enumerators to take their time through the modules is recommended.

### 3.3.4. Module 4

- There are four occasions where households did not declare any income in Module 4 (HH IDs: 7001, 7010, 7086 and 7092). This seems improbable and a high number of households (5.5% of all households surveyed in Funafuti to date). The first three teams were Team 1 and the last one was team 2.
- There were also a number of occasions (3 in Vaitupu and 3 in each of the Funafuti teams) where wage and salary paying jobs were listed as their main or secondary activity in Module 1 (10201 or 10206), however no wage or salary income was declared in Module 4 (Section 4.1.1). This is inconsistent and all teams are encouraged to identify these linkages (refer Appendix 3). There were some occasions where the main activity was a 3 or 4 for a seasonal worker, however the person was not currently undertaking that job in the last 7 days. Therefore, the reference period in Module 1 was incorrectly applied. In this case, the person could be listed as doing nothing in Module 1 yet still declare overseas wages and salaries in Module 4.
- There were some occasions (HH IDs: 7011 and 7059) where households who declared a housing allowance in Module 2 (20217), but did not declare the allowance in Module 4 (40108) – if a housing allowance is declared in Module 2, this allowance should always appear in Module 4. There were also occasions (HH IDs: 7057, 7071 and 7096) where housing allowance income was declared in Module 4 (40108), but not in Module 2 (20217) – if a housing allowance is declared in Module 4, then it is possible for it not to be declared in Module 2 if the respondent is an owner occupier (i.e., tenure status 4 or 5), but it’s still important to check this.
- There were some occasions where the household declared that their main mode of fishing was by motorised boat (Section 4.3), however there was no fuel for fishing expenditure declared in (Section 2.6). Again, this is possible, but it is inconsistent.
- There were numerous occasions (HH IDs: 7005, 7010, 7038, 7039, 7041, 7043, 7052, 7073, 7073, 7073, 7029, 7056, 7057, 7094) where previous household members were declared to have contributed wages in Module 1 (10606), however no income for these members was declared in Module 4 (Section 4.1.2).
- There were numerous occasions (Vaitupu team = 3 households; Funafitu team 1 = 4 households; and Funafitu team 2 = 6 households) where housing rental income was either declared in Module 2 (20223), however not in Module 4(40703(11)). There were also occasions where property rental income was reported in Module 4 (40703(11)), however the household did not declare that they own another house that is rented out for income in Module 2(20223).
- There are a number of occasions (14 households in total; mainly Vaitupu) where enumerators incorrectly completed questions 40704 and 40705. Refer discussion section titled ‘Property and transfer income and other casual receipts (Section 4.7)’ below and make the corrections requested in Appendix 1(G).

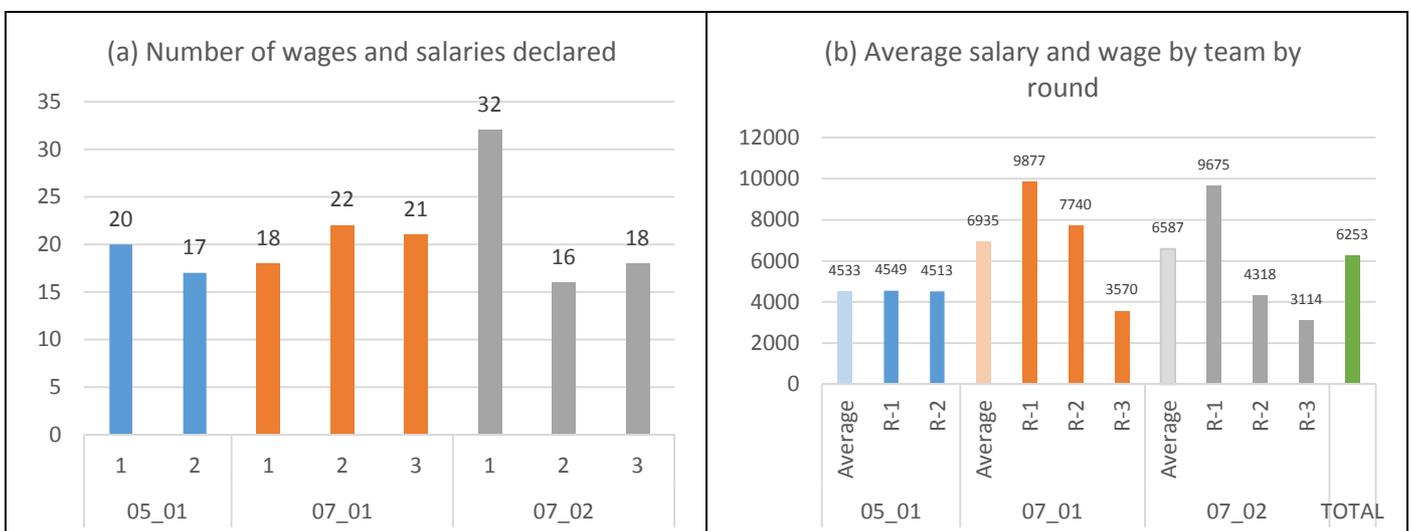


Figure 11: Number of wages and salaries declared (a) and average wage and salary (b) per team per round

- Figure 11 shows the number of wages and salaries declared in Module 4 (a) and the average wage/salary per job (b). What is interesting is that the Vaitupu team average wage is almost identical across the two rounds and that team 1 and 2 for Funafuti have similar averages. Although more data are required, the results seem plausible.

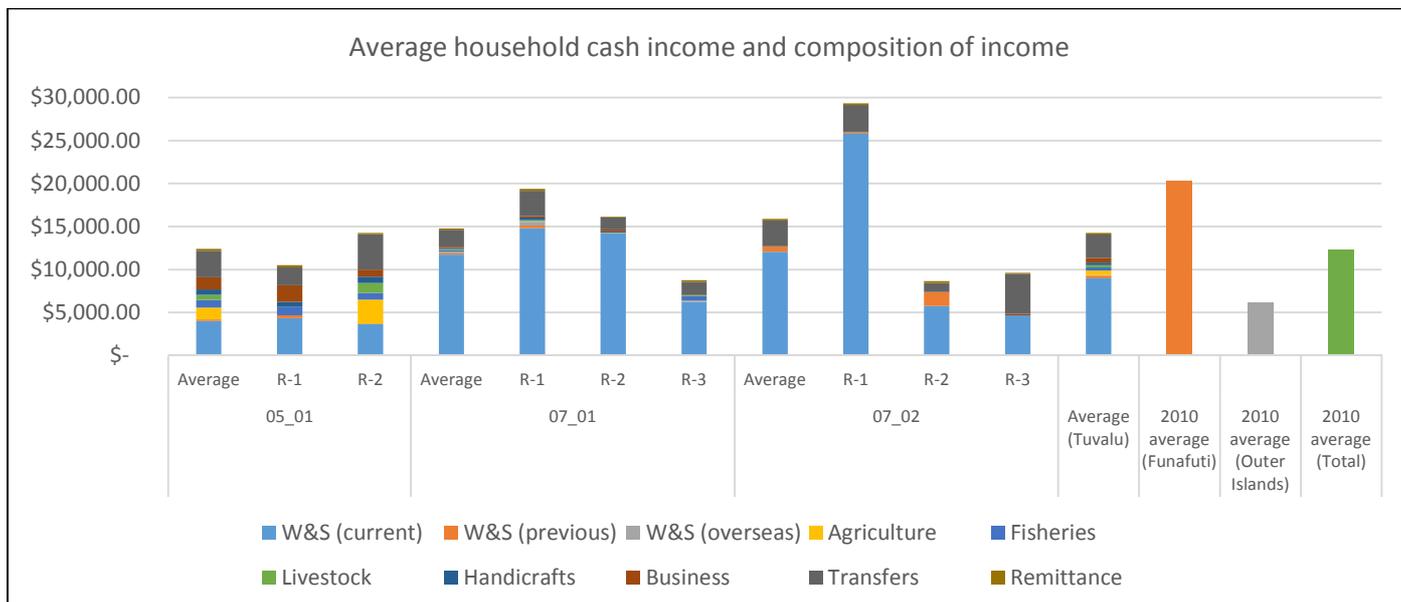


Figure 12: Average household cash income by income category, round and team

- Figure 12 shows the composition of cash income across all teams and rounds and it compares it to the cash income reported in the 2010 HIES. It is noted that transfer income is overestimated. The Vaitupu and Funafuti averages somewhat resemble that average household income derived from the 2010 HIES. Vaitupu looks to fairly closely resemble the 2010 HIES (after CPI is adjusted), while Funafuti average incomes seem a little low when compared with the 2010 average.

### 3.4. Error report

- Many of the errors are systematic (system problems, rather than actual errors), so the below presents the total errors (a), the total errors excluding COICOP missing (b) and the total errors excluding COICOP and systematic errors (c).



Figure 13: Number of errors generated by the data entry system per team per round

- All of the errors have been discussed in their respective sections (e.g., Module or Diary) and there is no need to cover the issues again.
- In terms of number of errors, Funafuti team 2 is performing well and Vaitupu and Funanfuti team 1 have a greater number of inconsistencies.
- The sections on Appendix 1 provide solutions to alleviate most of the errors.

## 4. DISCUSSIONS AND CLARIFICATIONS

### 4.1. Non-subsistence business income (Section 4.6)

- Teams advised that there was often reluctance by households to provide all the information sought in this section, especially in the case of the retail sector and particularly in relation to information on business revenue and expenses.
- The desirable outcome is that households provide this information in full, however it is already apparent that this is not always possible. As such, a set of procedures have been developed to follow to ensure that all possible information is collected in this section.
- Irrespective of what procedures are followed, it is important that, in all cases, questions 40602 to 40610 are completed in full. These questions are not considered to be collecting sensitive information and, as such, enumerators should not have difficulty obtaining this information.
- The procedures for questions 40611 to 40625 are provided below. Ideally, the respondent should provide all information sought for question 40611 to 40625 according to the structure of the questionnaire. This should be the primary goal and the below steps should only be followed if the respondent is not willing to provide the information in full.
- It is noted that, should the household receive a wage and salary from the business, that this information should have already been collected in Section 4.1 and that the information being collected in Section 4.6 is related to business income (i.e., profit), not salary and wage income.
- The procedures to follow are as follows:
  - Rather than asking for the revenue, expenses and profit of the business, ask the respondent how much their dividend was in the last 12-months. By dividend, we mean the amount of money that the household has withdrawn from the business after wages and salaries and other expenses are taken into consideration (i.e., how much of the businesses profit has the household has taken, not including the wages and salaries as these have already been collected in Section 4.1).
  - Write the dividend amount in question 40611, write zero in 40612, write the amount same amount that is in 40611 (the dividend) in 40613. Write 100% in 40614 as we are only collecting the dividend that that household has withdrawn from the business, so it is assumed to be 100%. Write 2 in 40615 and follow the skip pattern.
  - A note should be made stating that this is reporting dividend rather than business income.
  - This procedure should be completed for every business owned by the household.
- It is important to note that, to avoid double counting, the dividends declared in Section 4.6 should not again be declared in Section 4.7 (40702-15).
- Again, it is emphasised that the questionnaire should be followed as closely as possible and that the above steps should only be taken in the case that the household is not willing to provide the information sought in Section 4.6.

### 4.2. Cash contribution to special occasions (Section 2.9)

- Households often contribute food, gifts and cash to special occasions (e.g., birthdays, funerals, weddings).
- Section 2.9 is designed to only collect information on cash that is gifted, not gifts of food or other non-monetary gifts.
- There are cases where the value of the food that is gifted to special occasions has been estimated and the monetary value of these items entered into Section 2.9. This is incorrect and will lead to double counting of household gift expenditure. Only cash gifts should be recorded in Section 2.9.
- Households that buy food and other items for gifts should report these items in the diary and report them as code 2 (gift to another household) in question 5106, as long as they were purchased during the diary period. If they were not purchased during the diary period, then they should not be reported in the diary. For example, if during the diary period a household purchases a sack of rice as a gift for a special occasion, then the details of the purchase would be reported in Section 5.1 of the diary and coded as 2 in 5106. This expenditure should not be reported in Section 2.9 as it is not a cash gift and it will result in double counting.

- Non-cash gifts for special occasions, such as clothes and mobile phones, might be recorded in Module 3 (and the diary) if the expenditure was made within the relevant reference period. These gifts would be recorded against household member 90 (Member of another household). For example, if a dress was purchased as a birthday present in the last 3-months, then this expenditure would be recorded in Module 3 (Section 3.3), but the monetary value would not be reported in Section 2.9 as the household expenditure for this transaction would then be double counted.
- Section 2.9 should only record cash contributions to special occasions, not the value of gifts purchased and gifted.

#### **4.3. Wages and salaries overseas (Section 4.1.3) and individual expenditure (Module 3)**

- Occupations such as seasonal fruit picking and seamen are common in Tuvalu.
- Enumeration teams expressed difficulty in collecting information on the income of overseas workers and the individual expenditure of those workers. It is often the case that the household simply does not know the information and has no way of acquiring it.
- The household should be encouraged to try to obtain the information so that Section 4.1 and Module 3 can be completed accurately. In the case where this is not possible, the following procedure should be followed:
  - Individual expenditures should be ignored in Module 3, or best estimates made of individual expenditure of household members who are currently working overseas, including gifts purchased and brought back to Tuvalu.
  - Section 4.1.3 (wages and salaries overseas) should be completed as accurately as possible (40132 to 40136 should be common knowledge).
  - 40137 should report the amount of money that was sent by the household member working overseas plus the amount of money that was brought home in the last 12-months. I.e., the amount of money that was sent via telegram plus the amount of cash that was sent or brought home by the overseas worker. This is the best estimate of household income from overseas jobs.
- It is important to note that, to avoid double counting, the amount of money that was sent home by an overseas worker and declared in Section 4.1.3 should not again be reported in Section 4.8 (remittances and other cash gifts).

#### **4.4. Pastor income (Section 4.8)**

- Enumeration teams expressed difficulty in allocating income received by Pastors (who were surveyed) as it is often the case that the Pastor does not receive a salary and wages, rather, they receive cash gifts from households in Tuvalu.
- If the Pastor receives a salary or wage from the Church, then this should be reported in Section 4.1.1. In addition to this, any housing allowance (if given in cash) or in-kind income (such as food or housing provided by the church) should be reported in question 40106 to 40110.
- The cash gifts to the Pastor, provided by households, should be reported in Section 4.8 (remittances and other cash gifts). These can be coded as 1 (Church gift) in question 40807.
- It is noted that these cash gifts would also be reported by the gifting household in Section 2.9.

#### **4.5. Food, non-food and services received for free (Section 5.3)**

- As part of Cyclone Pam recovery, the Government of Tuvalu has been providing food aid to the affected households. The food aid usually consists of sacks of rice, tinned fish and corned beef. Given that the instructions in Section 5.3 of the diary specify that we should list goods from other households, groups or communities, the government gifts have not been recorded. This is a big loss to the survey as, despite the instructions, these gifts should be recorded.
- The impact of this is two-fold. Firstly, the household income generated from aid will be missed and the household expenditure will be reduced as it is likely that the aid-receiving households will have reduced food expenditure subsequent to receiving aid, so household expenditure will be reduced.
- Going forward, all gifts from government (or any individual or organisation) should be recorded in Section 5.3 of the Diary if those gifts were received during the diary period. Gifts including food, roofing materials,

construction materials, seeds for replanting crops, solar panels and machinery and equipment should all be reported in Section 5.3.

#### **4.6. Laptops used for data entry**

- It is noted that, as per SPC's instruction, the Vaitupu computer that is being used for data entry was brought to Funafuti for the workshop (for which this report is being written) and that the Funafuti laptop was then sent to Vaitupu to cover the data entry period during the workshop. This is unfortunately the result of unclear instruction from SPC.
- It is also noted that there is currently only 1 data entry operator for Funafuti (not 2 as originally planned) and that only 1 laptop is currently being used for data entry in Funafuti.
- The result is that there are three laptops that contain some rounds of data for Vaitupu and some rounds for Funafuti (team 1 and 2) on them. This will cause problems when the action items (Appendix 1) of this report are completed and for data management.
- It is recommended the data files (all rounds completed to date) for Vaitupu are copied onto 1 laptop and that all the data files for Funafuti are copied to one laptop (instructions are provided for completing this task in Appendix 1(J)).
- Going forward, the laptop containing the Funafuti data should only be used to enter the Funafuti data and the laptop containing the Vaitupu data should only be used to enter the Vaitupu data.
- It is also recommended that, after the action items in Appendix 1 are completed, all data files are backed up to an external hard drive, or copied to another computer in the case that the laptops are lost, damaged or corrupted, and a block back up is conducted so that the updated data are sent to SPC.

#### **4.7. Entering foreign currencies**

- It is noted that some values entered into the questionnaire are not entered in Australian Dollars. This is ok as long as a note is made specifying what currency is entered.
- This practice does, however, create difficulties in the data cleaning process and there is a risk that the note will be missed and the value taken as face value. For example, it is noted that a phone was purchased for \$9,600 Indian rupees.
- Appendix 4 provides a 'cheat sheet' for enumerators to refer to in the field to assist with conversion of different currencies to Australian Dollars. If the enumerators are confident using this, then it is good practice and the value should be converted to Australian dollars in the field, however if there is confusion, write the value in foreign currency and make a note as to what the currency being reported is.

#### **4.8. Property and transfer income and other casual receipts (Section 4.7)**

- Question 40704 asks for the amount (\$) of the last payment received in the last 12-months while question 40705 asks for the number of times that the payment was received in the last 12 months. This is structured in such a way so that the value of the last payment (40704) multiplied by the number of times that the payment was received (40705) will give the annual value.
- However, it appears that some teams are annualising the value in the field and entering this value into 40704, which is providing overestimates of income.
- For example, pension in Tuvalu is \$70 per month, so those who received pension for the past 12 months would enter \$70 in 40704 and 12 in 40705. However, there are numerous cases where the 12-month value (i.e., \$840) is reported in 40704 and 12 is reported in 40705. This results in an annualised value of \$10,080, which is a gross overestimation of pension income.
- Instruction is provided in Appendix 1(G) for recoding of wrong values.
- Going forward, enumerators are to complete question 40704 and 40705 according to instruction.

#### 4.9. Missing COICOP items

- Below is a list of COICOP items that the teams state as being missing, but they are available. To help with future data entry, the search and COICOP code is provided.
- The table below presents items that were coded as “missing”, but have COICOP codes.

Item	Search	COICOP
Ice cream Sunday	Take away ice cream	111126501
Church donations (regular)	Regular cash donation to church (weekly donation)	901100202
Church donations (other)	Other cash contribution to church	901100203
Church donations (misimale)	Cash contribution to church - misimale	901100201
Land crabs	Crab (includes land crab, mangrove crab, coconut crab) - fresh or frozen	011302302
Playing cards	Cards/chess sets, etc.	093122202
Chewing gum / bubble gum	Chewing gum	011805601
Food tray	Take away plate local food (faikai, lu, ngou'a ...)	111126505
Donation to school	Cash transfer to support schools, school day, teacher day, pat, school mufti (excluding school fees)	901100401
Colgate / toothpaste	Toothpaste	121327603
Butter	Butter	011503601
Bleach	Detergent, disinfectant, to clean the house, floor polish	056116901
Fishing net	Fishing materials (line, hook, rod, reel, wetsuit, mask, spear gun, flippers, nets, spears...)	093222801
Donation to funeral	Contribution for funerals	901100102

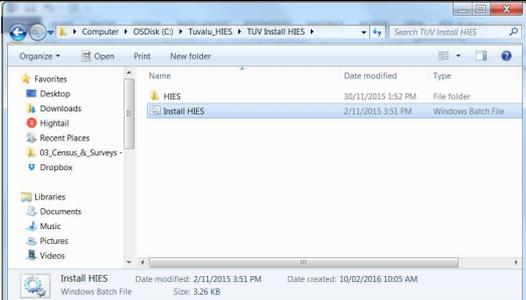
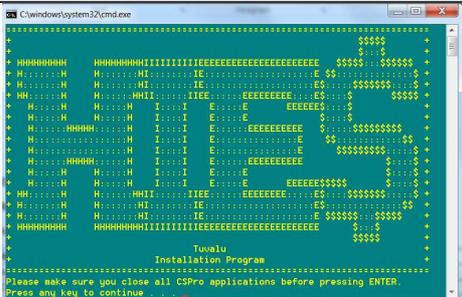
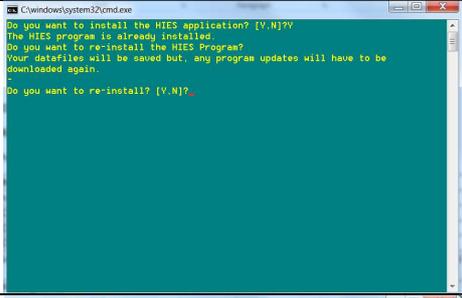
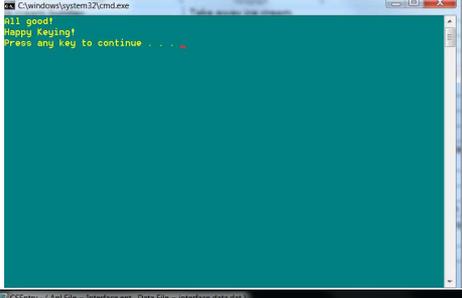
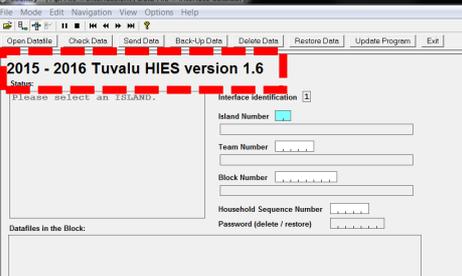
#### 4.10. Imputed rents (Section 2.2)

- Imputed rents, or the estimated rental amount that would be paid by owner occupied households if they were to rent, are collected in questions 20218, 20219 and 20222.
- Imputed rents estimates range from \$1 per month to \$1,000 per month. Vaitupu average imputed rents = \$260 per month, while Funafuti = \$286. Average market rents (i.e., rents of households that pay rent) in Vaitupu are \$250, while in Funafuti they are \$390.
- This is indicative that the imputed rents are probable, however given the wide range of imputed rent estimates (\$999) it is emphasised that enumerators should guide the household to give an unbiased response that is in line with market rates for the location and characteristics of the land/dwelling.

# APPENDIX 1: FOR ACTION BY TUVALU CENTRAL STATISTICS DIVISION AND HIES TEAMS

## A. Data entry system update

A new data entry system (Version 1.6) has been developed. This includes new error checks and various improvements. Grace has the system. All computers should be updated ASAP.

<p><b>Step 1:</b> Copy the installation package “TUV Install HIES” to location: C:\Tuvalu_HIES</p>	
<p><b>Step 2:</b> Ensure all CPro (data entry) systems are closed</p>	
<p><b>Step 3:</b> Double click on “Install HIES”</p>	
<p><b>Step 3:</b> Press ‘Y’</p>	
<p><b>Step 4:</b> Press ‘Y’</p>	
<p><b>Step 5:</b> Press any key</p>	
<p><b>Step 6:</b> Open data entry system and ensure that Version 1.6 is running. If it is, good to go!</p>	

**B. Check anthropometric data (height and weight) for the following households (Q10401 and 10402)**

Household ID	Person ID	Reason
7099	2	Too light
5015	6	Too light
7056	4	Too light
7043	7	Too light
5052	5	Too light
7084	4	Too light
7105	1	Too short
7103	21	Too short
7103	22	Too short
7028	2	Too short
7028	3	Too short
7075	2	Too short
7028	1	Too short
7075	4	Too short
7105	1	Too short
7075	1	Too short

**C. Re-enter alcohol and tobacco use sections (Q30602 to Q30605) for the following households:**

05_01	07_01	07_02
Round 1	Round 1	Round 1
5004	7001	7026
5005	7010	7029
Round 2	7013	
5043	7014	
	7015	
	Round 2	
	7037	
	7039	
	7046	
	7050	
	7052	
	Round3	
	7078	

#### D. Missing COICOP items to be updated on system

HH ID	Line	COICOP	Description	Amount	Day	Recode	Search
5002	20	999999999	donation to church	1.5	14	901100202	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
5002	9	999999999	donations to church	1	7	901100202	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
5003	8	999999999	donation to church	50	7	901100203	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
5003	30	999999999	donation to church	5	14	901100204	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
5004	11	999999999	donation to church	10	7	901100205	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
5005	18	999999999	pay contractors	678	7	043211901	CARPENTERS
5007	22	999999999	donation to church	0.6	13	901100206	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
5010	6	999999999	donation to church	50	2	901100207	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
5014	3	999999999	donation to church	10	1	901100208	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
5021	17	999999999	donuts	3	6	011100701	DOUGHNUTS, ETC.
5022	20	999999999	church donation	2.5	7	901100202	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
5035	12	999999999	church donation	2	7	901100203	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
5035	20	999999999	church donation	2	14	901100204	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
5036	53	999999999	donation	2.5	14	901100107	CASH DONATION GIVEN AWAY (MONEY) TO SUPPORT ANOTHER HOUSEHOLD (IN TUVALU)
5036	39	999999999	orange fruit	3	10	011604212	ORANGES - FRESH
5037	15	999999999	roll on	4.5	14	121327710	DEODORANT AND BODY SPRAYS
5038	19	999999999	land crabs	7.5	12	11302302	CRAB (INCLUDES LAND CRAB, MANGROVECAB, COCONUT CRAB) - FRESH OR FROZEN
5040	22	999999999	bleach	3.5	12	056116911	OTHER CLEANING PRODUCTS N E S
5043	14	999999999	solomon blue	4	9	011302506	CANNED TUNA
5055	16	999999999	church donation	0.5	14	901100205	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)

HH ID	Line	COICOP	Description	Amount	Day	Recode	Search
7002	40	999999999	donation to church	5	14	901100209	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
7002	2	999999999	food tray	10	13	111126504	TAKE AWAY PLATE, TAKE AWAY FOOD (CHINESE FOOD, CHICKEN, BARBECUE, CASSAVA, FISH ....)
7002	10	999999999	roll on	3.6	5	121327710	DEODORANT AND BODY SPRAYS
7002	15	999999999	telephone card	2	8	083020904	LAND LINE PHONE BILL (IF YOU USE ATELECARD TO ADD CREDIT FOR YOUR HOME/LAND-LINE PHONE THEN YOU CAN USE THIS C
7003	15	999999999	bar soap	3	9	121327604	BATH SOAPS AND SHOWER GELS
7004	26	999999999	bubblegum	0.5	8	011805601	CHEWING GUM
7004	4	999999999	donation	20	1	901100108	CASH DONATION GIVEN AWAY (MONEY) TO SUPPORT ANOTHER HOUSEHOLD (IN TUVALU)
7004	23	999999999	donation	20	7	901100109	CASH DONATION GIVEN AWAY (MONEY) TO SUPPORT ANOTHER HOUSEHOLD (IN TUVALU)
7004	34	999999999	gum	1	11	011805601	CHEWING GUM
7005	27	999999999	donation	20	14	901100110	CASH DONATION GIVEN AWAY (MONEY) TO SUPPORT ANOTHER HOUSEHOLD (IN TUVALU)
7006	13		colgate		2	121327603	TOOTHPASTE
7006	26	999999999	donation	20	4	901100111	CASH DONATION GIVEN AWAY (MONEY) TO SUPPORT ANOTHER HOUSEHOLD (IN TUVALU)
7006	36	999999999	donation	20	5	901100112	CASH DONATION GIVEN AWAY (MONEY) TO SUPPORT ANOTHER HOUSEHOLD (IN TUVALU)
7006	1	999999999	food tray	40	7	111126504	TAKE AWAY PLATE, TAKE AWAY FOOD (CHINESE FOOD, CHICKEN, BARBECUE, CASSAVA, FISH ....)
7006	76	999999999	fund raising	14	13	901100701	OTHER CASH CONTRIBUTION N E S
7006	14		soap		2	121327604	BATH SOAPS AND SHOWER GELS
7006	15	999999999	telephone card	10	2	083020904	LAND LINE PHONE BILL (IF YOU USE ATELECARD TO ADD CREDIT FOR YOUR HOME/LAND-LINE PHONE THEN YOU CAN USE THIS C
7006	12		toilet paper		2	121327805	TOILET PAPERS
7010	1	999999999	food tray from workshop	15.5	1	111126504	TAKE AWAY PLATE, TAKE AWAY FOOD (CHINESE FOOD, CHICKEN, BARBECUE, CASSAVA, FISH ....)
7012	2	999999999	fishing net	15	3	093222801	FISHING MATERIALS (LINE, HOOK, ROD, REEL, WETSUIT, MASK, SPEAR GUN, FLIPPERS, NETS, SPEARS...)
7013	23	999999999	donation	140	8	901100113	CASH DONATION GIVEN AWAY (MONEY) TO SUPPORT ANOTHER HOUSEHOLD (IN TUVALU)
7013	21	999999999	donation to church	10	6	901100210	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
7013	20	999999999	donation to school	18	5	901100401	CASH TRANSFER TO SUPPORT SCHOOLS,SCHOOL DAY, TEACHER DAY, PAT, SCHOOL MUFTI (EXCLUDING SCHOOL FEES)
7015	24	999999999	donation to church	10	7	901100211	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
7023	57	999999999	donation to church	50	13	901100213	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
7023	27	999999999	donation to community	100	5	901100302	OTHER CASH CONTRIBUTION TO SUPPORTTHE VILLAGE / COMMUNITY
7023	39	999999999	donation to community	350	7	901100303	OTHER CASH CONTRIBUTION TO SUPPORTTHE VILLAGE / COMMUNITY
7027	16	999999999	donation to church	100	8	901100214	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
7037	12	999999999	donation	5	7	901100114	CASH DONATION GIVEN AWAY (MONEY) TO SUPPORT ANOTHER HOUSEHOLD (IN TUVALU)

HH ID	Line	COICOP	Description	Amount	Day	Recode	Search
7037	1	999999999	necklaces	45	9	123128101	JEWELLERY (LOCAL OR NOT): EARING,NECKLACE, BRACELET, LEI...
7038	45	999999999	colour light	31	13	055216704	ELECTRIC BULBS
7038	34	999999999	donation	20	7	901100115	CASH DONATION GIVEN AWAY (MONEY) TO SUPPORT ANOTHER HOUSEHOLD (IN TUVALU)
7038	47	999999999	donation	20	13	901100116	CASH DONATION GIVEN AWAY (MONEY) TO SUPPORT ANOTHER HOUSEHOLD (IN TUVALU)
7038	1	999999999	dress	20	2	031209414	DRESS (FOR WOMEN AND GIRL - 3 YEARS OLD AND +)
7038	37	999999999	playing cards	1	9	93122202	CARDS/CHESS SETS, ETC.
7040	68	999999999	donation	10	12	901100117	CASH DONATION GIVEN AWAY (MONEY) TO SUPPORT ANOTHER HOUSEHOLD (IN TUVALU)
7041	41	999999999	donation	2	7	901100118	CASH DONATION GIVEN AWAY (MONEY) TO SUPPORT ANOTHER HOUSEHOLD (IN TUVALU)
7046	28	999999999	donation	20	7	901100119	CASH DONATION GIVEN AWAY (MONEY) TO SUPPORT ANOTHER HOUSEHOLD (IN TUVALU)
7046	57	999999999	donation to church	100	14	901100212	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
7046	4	999999999	tomato paste	1.8	2	011906302	TOMATO SAUCE
7050	23	999999999	donation	20	13	901100120	CASH DONATION GIVEN AWAY (MONEY) TO SUPPORT ANOTHER HOUSEHOLD (IN TUVALU)
7051	2	999999999	necklaces	18	2	123128101	JEWELLERY (LOCAL OR NOT): EARING,NECKLACE, BRACELET, LEI...
7054	30	999999999	brisket	29.4	8	011201101	BEEF - STEAK (FRESH OR FROZEN - NOT TINNED)
7057	33	999999999	donation to church	80	5	901100215	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
7057	61	999999999	donation to church	80	11	901100216	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
7059	13	999999999	donation to church	50	6	901100217	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
7059	27	999999999	donation to church	50	13	901100218	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
7059	20	999999999	roll on	3.5	10	121327710	DEODORANT AND BODY SPRAYS
7060	83	999999999	roll on	3.5	13	121327710	DEODORANT AND BODY SPRAYS
7061	19	999999999	roll on	3.5	11	121327710	DEODORANT AND BODY SPRAYS
7083	42	999999999	butter	20	7	011503601	BUTTER
7084	2	999999999	water bucket	4	1	054015704	BUCKETS, BASIN
7085	43	999999999	donation to the pastor	20	12	901100203	OTHER CASH CONTRIBUTION TO CHURCH
7095	17	999999999	donation to church	20	9	901100219	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
7096	11	999999999	donation to church	10	6	901100220	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
7097	21	999999999	donation to church	20	7	901100221	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)
7097	37	999999999	donation to funeral	100	13	901100102	CONTRIBUTION FOR FUNERALS
7102	7	999999999	church donation	12	7	901100206	REGULAR CASH DONATION TO CHURCH (WEEKLY DONATION)

**E. Missing ISCO (occupation codes) to be updated:**

ID07	Q10102	Q10202	Q10202_C	Code as:	Search:
7005	Tuaga Famau	CHURCH	999	3413	Religion
7005	Tuaga Sini	CHURCH	999	3413	Religion
7005	Sini Hauleka	CHURCH	999	3413	Religion
7097	MAIBUCA PANETA	PASTOR	999	3413	Religion

ID07	Q10102	Q10202	Q10207_C	Code as:	Search:
7005	Tuaga Jesica	CHURCH	999	3413	Religion

**F. Missing ISIC (industry codes) to be updated:**

ID07	Q10102	Q10203	Q10203_C	Code as:	Search:
5038	SIAOSI MULIVAKA	AGRICULTURE	999	10150	Mixed farming
5039	TALIU UELE	AGRICULTURE	999	10150	Mixed farming
5039	UELE SAUA	HANDICRAFT	999	11312	Weaving
5040	FAKAPOGA ESEKIA	AGRICULTURE	999	10145	Pig
5040	ESEKIA LILIFA	AGRICULTURE	999	10162	Production support
5042	TELEMATUA MALETA	AGRICULTURE	999	10145	Pig
5043	SALANI FALAVI	FINANCES	999	11312	Weaving
5044	LONIDONI ROY	AGRICULTURE	999	10150	Mixed farming
5045	TELAACA MASELUSI	AGRICULTURE	999	10145	Pig
5046	PENIAMINA FAMATALA	AGRICULTURE	999	10119	Crop
5047	SEELU MAEMAE	AGRICULTURE	999	10119	Crop
5047	DAVID TAVITA	AGRICULTURE	999	10145	Pig
5047	JACK DOUGHLAS	AGRICULTURE	999	10145	Pig
5048	ESAU SOPEPA	AGRICULTURE	999	10145	Pig
5049	OLIVE LAUPAE	AGRICULTURE	999	10145	Pig
5052	PENI TAUA	JUSTICE	999	18423	Public
5052	TAUA LIVETI	AGRICULTURE	999	10145	Pig
5052	NOME PETAIA	AGRICULTURE	999	10145	Pig
5052	NOME NOME	AGRICULTURE	999	10150	Mixed farming
5052	TAUA MARTIN	AGRICULTURE	999	10145	Pig
5053	TALIU KAEULA	JUSTICE	999	18423	Public
5053	KAEULA TAILUSI	AGRICULTURE	999	10145	Pig
5054	SAKULA MOI	AGRICULTURE	999	10119	Crop
5061	PANETA PAIA	HANDICRAFT	999	11312	Weaving
5065	VAEA TANEI	AGRICULTURE	999	10145	Pig
5065	VAEA TEEVE	AGRICULTURE	999	10145	Pig
5065	KATEA MATAPOGA	AGRICULTURE	999	10145	Pig
7003	Malaitia Uikilifi	PWD	999	14100	Construction
7003	Malaitia Fusiopou	PWD	999	14100	Construction
7014	Kutiolo Kine	TEC	999	16110	Communication
7015	Tefoa Ituaso	MARINE	999	15222	Water
7097	MAIBUCA PANETA	CHURCH	999	19491	Religion

<b>ID07</b>	<b>Q10102</b>	<b>Q10208</b>	<b>Q10208_C</b>	<b>Code as</b>	<b>Search</b>
5043	SALANI FALAVI	AGRICULTURE	999	10145	Pig
5045	TELAACA MASELUSI	AGRICULTURE	999	10145	Pig
5046	PENIAMINA MANU	AGRICULTURE	999	10119	Crop
5047	DOUGHLAS SNOWWHITE	AGRICULTURE	999	10145	Pig
5049	OLIVE LAUPAE	AQRICULTURE	999	10119	Crop
5049	OLIVE HENRY	AGRICULTURE	999	10145	Pig
5052	TAUA LIVETI	AGRICULTURE	999	10119	Crop
5052	NOME PETAIA	AGRICULTURE	999	10119	Crop
5054	SAKULA MOI	AGRICULTURE	999	10145	Pig
5061	PANETA PAIA	AGRICULTUE	999	10145	Pig
5065	KATEA VAEA	AGRICULTURE	999	10145	Pig
5066	MAINA SOLOMONA	AGRICULTURE	999	10145	Pig
7038	Koepke Emily	CHURCH	999	19491	Religion

### G. Re-enter pension/senior citizen pay

Make changes to the below. The data in their current form are in red and the recode values are provided in green.

ID07	Team	Round	Q40701	Q40702	Q40704	Q40705	Recode 40704	Recode 40705	Comments
5007	05_01	1	21	Pension	840	12	70		
5014	05_01	1	22	Senior citizen pay	840	11	70		Check questionnaire to confirm 40705 is 11 and not 12
5036	05_01	2	22	Senior citizen pay	840	12	70		
5037	05_01	2	22	Senior citizen pay	840	12	70		
5038	05_01	2	22	Senior citizen pay	840	12	70		
5046	05_01	2	22	Senior citizen pay	840	12	70		
5047	05_01	2	22	Senior citizen pay	840	12	70		
5049	05_01	2	22	Senior citizen pay	840	12	70		
5052	05_01	2	22	Senior citizen pay	840	12	70		
7003	07_01	1	22	Senior citizen pay	840	12	70		
7040	07_01	2	11	Home rental	12000	8	Check questionnaire	?	\$12,000 x 8 = \$96,000 which is an unlikely amount. Check questionnaire
7075	07_01	3	22	Senior citizen pay	840	12	70		
7026	07_02	1	21	Pension	840	12	70		
7094	07_02	3	11	Home rental	17400	12	Check questionnaire	?	\$17,000 x 12 = 204,000 which is an unlikely amount. Check questionnaire

## H. General error amendments

The data cleaning exercise found the following errors, which should be corrected:

### *Cover pages*

- **5036:** change set ID from 1 to A
- **5061:** change data entry date (Module 3) to 2016
- **7006:** enter set ID (set A)
- **7006:** enter round ID (round 1)
- **7056:** update status to 1 for interview status, module 1, 2 3 and 4 and the diaries.

### *Module 1*

- **5048 (person 2):** delete 1 from 10210 (follow skip pattern)
- **7002 (person 2):** delete 2 from 10210 (follow skip pattern)
- **7002 (person 3):** delete 1 from 10210 (follow skip pattern)
- **7002 (person 4):** delete 1 from 10210 (follow skip pattern)
- **7006 (person 3):** check skip patterns for 10303, 10304, 10305
- **7040 (person 24):** 10306 and 10307 should be blank (check questionnaire to confirm)
- **7067 (person 3):** main activity is student (10201), but they're not attending school now (10303) (check questionnaire)
- **7004 (person 6):** 10408 and 10409 are blank (check questionnaire)
- **7068 (person 2):** 10404 is blank (check questionnaire)
- **7068 (person 3):** 10404 is blank (check questionnaire)
- **5015 (person 1):** information in 10211 is missing (check questionnaire)
- **7066 (person 5):** 10106 code should be 7
- **7092 (person 2):** 10106 code should be 2

### *Module 2*

- **5004:** recode the washing machine purchase in 20555 as business (code 3)
- **7054:** response to 20212 = 20214. Check questionnaire. Should 20213 response = 1?
- **7099:** response to 20212 = 20214. Check questionnaire. Should 20213 response = 1?

### *Diary (purchase)*

- **7065 (day 4):** Change chicken value from \$3405 to \$34.50

### I. Survey materials (household listing)

Please complete the table below and return to SPC:

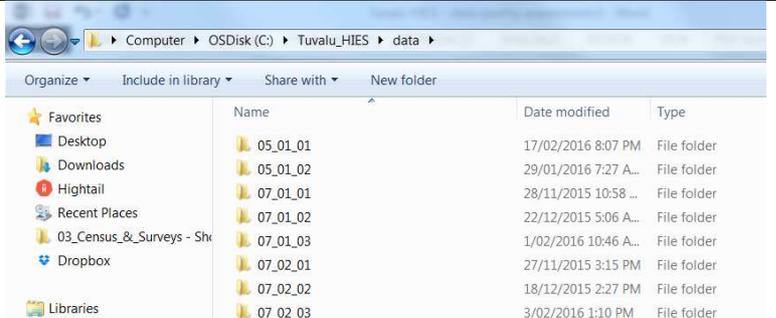
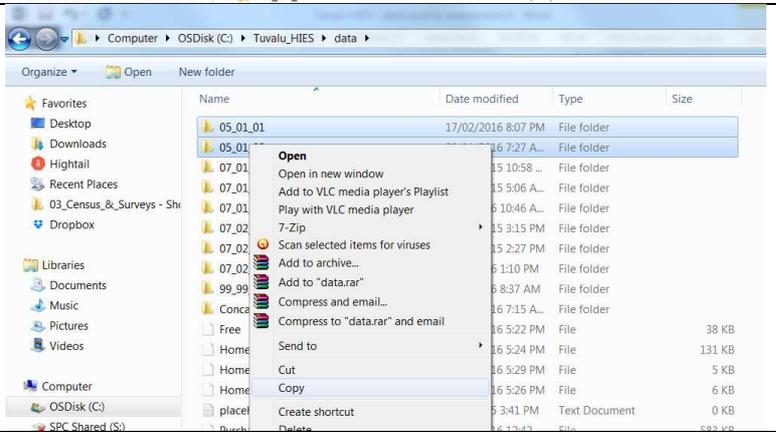
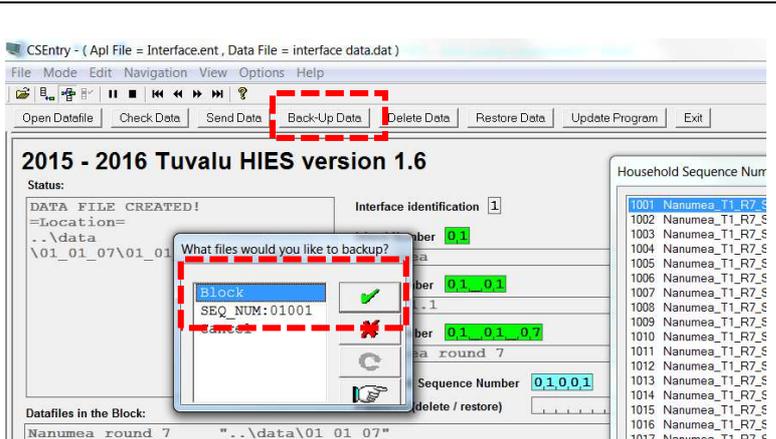
HH ID (Set B)	Replaced HH ID (Set A)?	Reason for replacement	Reasons for replacement:
5022			1 Refusal
5026			2 Can't find appropriate time
5055			3 No contact - HH head not present
5061			4 No contact - HH head away
5065			5 Vacant house
5066			
7026			
7027			
7043			
7050			
7052			
7054			
7061			
7071			
7097			
7099			
7106			

## J. Copying data files

As specified above in the discussion session, before all the action items are completed, it is necessary to copy all the updated data files for Vaitupu to one computer and all the updated data files for Funafuti to one computer. This will ensure that the updates are not lost with multiple computers having data files from different teams/islands.

Note that data files are names by island / team / round. For example, 07\_02\_04 would be Funafuti (07), team 2 (02), round 4 (04).

The process for completing this task is provided below.

<p>Open the data file location (C:\Tuvalu_HIES\data)</p>	
<p>Select and copy the updated data files to be copied to the 'master laptop' for Vaitupu or Funafuti</p>	
<p>Paste them into the data file of the computer for the relevant island (Vaitupu or Funafuti)</p>	
<p>Check that data files for all rounds and teams that should be there are in-fact there</p>	
<p>Do a 'block backup' for all data files</p>	
<p>Copy all data files to an external hard drive or to another computer following the instructions above.</p>	

## APPENDIX 2: ACTION ITEMS FOR SPC

### New COICOP items

- Toddy
- Night club entrance fee
- Transportation of goods and materials
- Pulaka
- Garland of flowers
- Canned chicken
- Flying fish
- Block or cubes of ice
- Local skirt
- Local necklace
- Pandanus leaves
- Snowball confectionary
- Tang
- Vegemite
- Ladies leggings and tights
- Sim card
- Donation to pastor
- Black beans
- Sunday school teacher

### System updates

1. 10212: only 10 options, but 11 on questionnaire
2. Add new COICOP items (above)

### Send to Grace

- CPro 6.1
- Interim review presentation
- Concatenated data
- Report
- Excel
- COICOP
- System update
- Data files to date

### Set up Tuvalu HIES mailing list

[bhoward2307@gmail.com](mailto:bhoward2307@gmail.com); [smakano@gmail.com](mailto:smakano@gmail.com); [betzat@gmail.com](mailto:betzat@gmail.com); [jnrfaumaa@gmail.com](mailto:jnrfaumaa@gmail.com); [mhauma@gmail.com](mailto:mhauma@gmail.com);  
[nto4lyfe@gmail.com](mailto:nto4lyfe@gmail.com); [GAlapati@gov.tv](mailto:GAlapati@gov.tv); [gsenalaalapati@gmail.com](mailto:gsenalaalapati@gmail.com); [SMalona@gov.tv](mailto:SMalona@gov.tv); [AAsone@gov.tv](mailto:AAsone@gov.tv);  
[jnrmanaostanley@gmail.com](mailto:jnrmanaostanley@gmail.com)

### APPENDIX 3: LINKAGES IN THE QUESTIONNAIRE

Below is a list of direct linkages in the questionnaire. That is, the response to the early question should result in a response to a subsequent question.

Question	Response	Linkage	Comment
10104	Age	10105	Age in years should match age by date
10201	03 or 04	40110	People working for wages and salaries should declare income in Module 4 (S4.1.1)
10201 / 10206	09	10301 / 10303 / 10306 / 10307	If main or other activity is student, then the person should be currently attending school
10606	1	40125	If previous household member had a waged job, then the income should be declared in Module 4 (S4.1)
10606	5	40400	If previous household member sold livestock, then the information should be collected in Module 4 (S4.4)
10608	1	20503	If previous household member incurred household asset expenses, then information should be collected in Module 2 (S2.5)
10608	3	30100	If previous household member incurred education expense, then the information should be collected in Module 3 (S3.1)
20217	Value (\$)	40108	The value of the housing allowance from employer should be the same as the value in 40108
20223	1, 2 or 3	40703 (11)	If the household owns another house from which income is generated, then the income should be declared in Module 4 (S4.7)

#### APPENDIX 4: IN-FIELD CURRENCY CONVERSION CHEAT SHEET

Currency (A)	Conversion factor (B)	Result (C) = (A) x (B)	Example (Amount in foreign currency = calculation to make = amount in AUD)
New Zealand dollar (NZD)	0.93	(C) = (A) x (B)	\$100 NZD = 100 x 0.93 = \$93 AUD
Fijian dollar (FJD)	0.65	(C) = (A) x (B)	\$200 FJD = 200 x 0.65 = \$130 AUD
US dollar (USD)	1.40	(C) = (A) x (B)	\$500 USD = 500 x 1.4 = \$700 AUD
European Euro (EUR)	1.55	(C) = (A) x (B)	\$65 EUR = 65 x 1.55 = \$100.75 AUD
Solomon Islands dollar (SBD)	0.17	(C) = (A) x (B)	\$1,000 SBD = 1000 x 0.17 = \$170 AUD
Vanuatu vatu (VUV)	0.012	(C) = (A) x (B)	\$10,000 VUV = 10,000 x 0.012 = \$120 AUD
Tongan pa'anga (TOP)	0.61	(C) = (A) x (B)	\$300 TOP = 300 x 0.61 = \$183 AUD
French Pacific Franc (XPF)	0.013	(C) = (A) x (B)	\$15,000 XPF = 15,000 x 0.013 = \$195 AUD
PNG kina (PGK)	0.46	(C) = (A) x (B)	\$200 PGK = 200 x 0.46 = \$92
Samoaan tala (WST)	0.54	(C) = (A) x (B)	\$800 WST = 800 x 0.54 = \$432 AUD
Japanese Yen (JPY)	0.012	(C) = (A) x (B)	\$3,000 JPY = 3,000 x 0.012 = \$41.18 AUD
British Pound (GBP)	1.99	(C) = (A) x (B)	\$50 GBP = 50 x 1.99 = \$99.50 AUD