



## ASSESSMENT OF MEASLES EPIDEMIC IMPACT ON PRIVATE SECTOR

### 1. METHOD

The Private Sector was engaged by the Ministry of Commerce, Industry and Labour (MCIL) on the 14<sup>th</sup> January 2020, through their Private Sector Organisations (PSOs), for their views on the impact of the Measles Epidemic on their businesses. A rapid survey was done utilising all received survey answers that are complete. The final survey answers were collected in March 2020.

The questionnaire had five main questions plus general details. The five questions were:

- On a scale of 1 (minor) to 5 (major) please indicate the impact of the Measles Epidemic on your business/organisation's turnover;
- On a scale of 1 (minor) to 5 (major) please indicate how the Measles Epidemic has affected your business/organisation's human resource;
- On a scale of 1 (minor) to 5 (major) please indicate the impact of the Measles Epidemic on your business/organisation's general operations;
- On a scale of 1 (minor) to 5 (major) please indicate the impact of the Measles Epidemic on your business/organisation's supply chain (import/export, production, etc.);
- What measures have been undertaken during the Measles Epidemic to avoid disruption to the business/organisation's daily activities?

### 2. SAMPLE

The final sample included 122 businesses on Savaii and Upolu. There were 60 businesses surveyed in Upolu and 62 in Savaii. The responses received were categorised by 11 industries which are: Agriculture; Automotive; Construction; Fisheries; Food; Manufacturer; Retail; Retail (Clothing); Service; Tourism (Accommodation Provider); and Tourism (Support).

Table 1: Breakdown of Sample by Industry and Location

INDUSTRY	# OF SAVAII RESPONSES	# OF UPOLU RESPONSES
Agriculture	8	11
Automotive	8	6
Construction	1	-
Fisheries	1	3
Food	7	7
Manufacturer	-	1
Retail	26	23
Retail (Clothing)	2	2

Service	6	6
Tourism (Accommodation Provider)	3	-
Tourism (Support)	-	1
<b>TOTAL</b>	<b>62</b>	<b>60</b>

The bulk of responses were from the Retail industry, which makes up about 40% of responses. There were 19 survey responses from the Agriculture Sector, comprising 16% of total responses. Table 2 below further details the breakdown of responses by industry.

Table 2: Breakdown of total responses by Industry

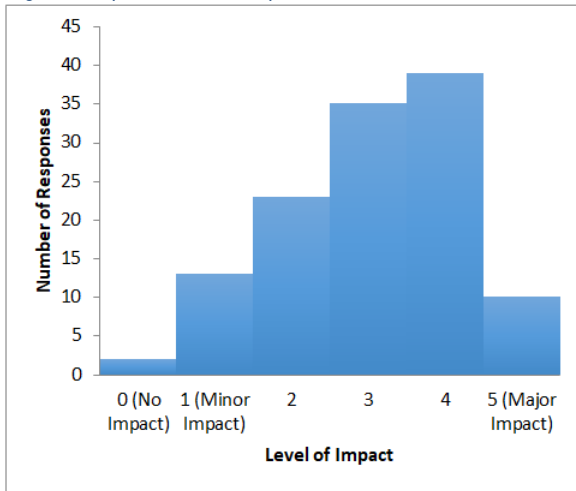
INDUSTRY	# OF RESPONSES	PERCENTAGE OF TOTAL
Retail	49	40.16%
Agriculture	19	15.57%
Food	14	11.48%
Automotive	14	11.48%
Service	12	9.84%
Retail (Clothing)	4	3.28%
Fish	4	3.28%
Tourism (Accommodation Provider)	3	2.46%
Tourism (Support)	1	0.82%
Manufacturer	1	0.82%
Construction	1	0.82%
<b>TOTAL</b>	<b>122</b>	<b>100.00%</b>

### 3. FINDINGS

#### 3.1. IMPACT ON TURNOVER

Turnover refers to the businesses' daily returns from sales. Based on the responses received, the average level of impact of the Measles Epidemic on Turnover is 3.0 with a standard deviation of 1.2. This means that the bulk of responses for impact on Turnover are concentrated around the 3.0±1.2 range. The most frequent level of impact indicated for Turnover is 4.0 with 39 responses. Hence, the impact of the Measles Epidemic on businesses' Turnover is right-skewed indicating a positive relationship between the two factors. This basically means that there is sufficient evidence to support that the Measles Epidemic had a direct impact on Turnover.

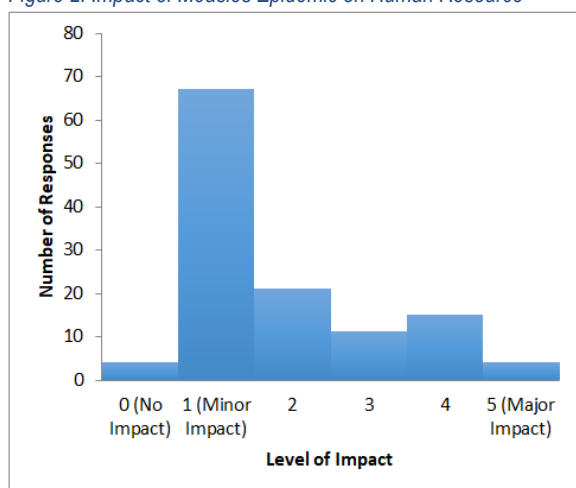
Figure 1: Impact of Measles Epidemic on Turnover



### 3.2. IMPACT ON HUMAN RESOURCE

Human Resource refers to matters pertaining to employees (including leave entitlements and employee retention) from the employer's perspective. Based on the responses received, the average level of impact of the Measles Epidemic on Human Resource is 1.8 with a standard deviation of 1.2. This means that the bulk of responses for impact on Human Resource are concentrated around the  $1.8 \pm 1.2$  range. The most frequent level of impact indicated on Human Resource is 1.0 with 67 responses. Hence, the impact of the Measles Epidemic on businesses' Human Resource is left-skewed indicating a negative relationship between the two factors. Therefore there is sufficient evidence to prove that the Measles Epidemic had no direct impact on businesses' Human Resource.

Figure 2: Impact of Measles Epidemic on Human Resource

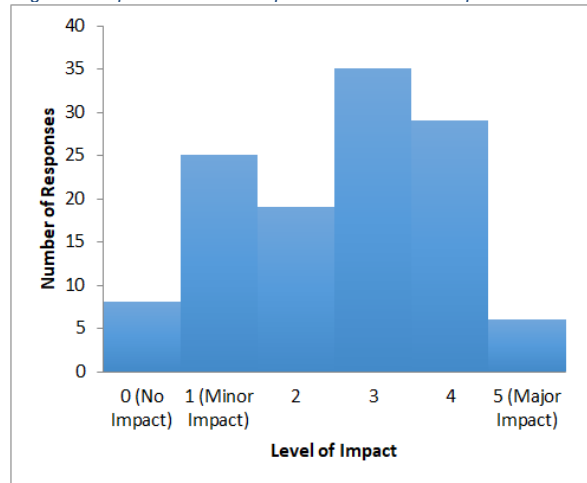


### 3.3. IMPACT ON GENERAL OPERATIONS

General Operations refer to the daily operations of the business. Based on the responses received, the average level of impact of the Measles Epidemic on General Operations is 2.6 with a standard deviation of 1.4. This

means that the bulk of responses for impact on General Operations are concentrated around the  $2.6 \pm 1.4$  range. The most frequent level of impact indicated for General Operations is 3.0 (35 responses) and the data has a bimodal distribution indicating mixed responses. The major mode of the bimodal distribution is right-skewed. Hence, there is reasonable evidence to assume that the measles epidemic had an impact on businesses' General Operations.

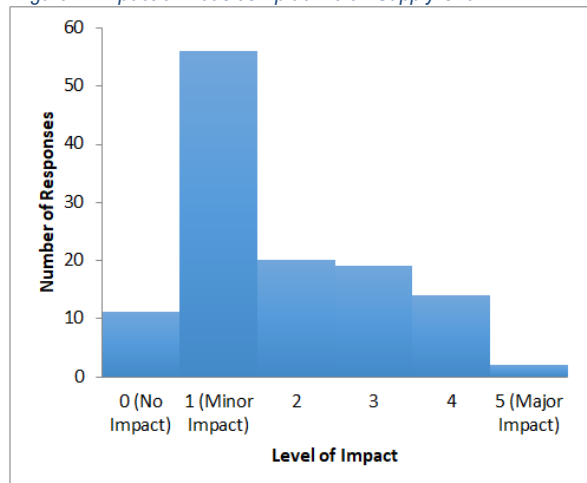
Figure 3: Impact of Measles Epidemic on General Operations



### 3.4. IMPACT ON SUPPLY CHAIN

Supply Chain refers to the mobilisation of goods and services, including impact on production, imports, and exports. Based on the responses received, the average level of impact of the Measles Epidemic on Supply Chain is 1.8 with a standard deviation of 1.2. This means that the bulk of responses for impact on Supply Chain are concentrated around the  $1.8 \pm 1.2$  range. The most frequent level of impact indicated on Supply Chain is 1.0 with 56 responses. Hence, the impact of the Measles Epidemic on businesses' Supply Chain is left-skewed indicating a negative relationship between the two factors. Therefore there is sufficient evidence to prove that the Measles Epidemic had no direct impact on businesses' Supply Chain.

Figure 4: Impact of Measles Epidemic on Supply Chain





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### 3.5. RESPONSE MEASURES

The final survey question is open-ended. Therefore, the combatting measures that were implemented vary among the businesses. The following presents some consensus of the responses that were provided:

- A majority of businesses indicated incorporating creative measures in their goods transport and logistics to ensure the continuity of their businesses (e.g. agricultural businesses incorporated door-to-door delivery of their goods).
- Some businesses indicated their staff had to get vaccinated in order to continue working;
- Staff members with children that were infected with measles were temporarily laid off.
- Taxi services (especially in the town area) remained on-call and no longer roamed the roads for passengers.

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Survey responses were collected through PSOs and this rapid analysis was done by the Trade, Commerce & Manufacturing Sector Coordination Unit (TCMS-CU) under the auspices of MCIL.

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