AN EVALUATION OF THE PERCEIVED IMPACT OF IN-PATIENT CATERING OUTSOURCING ON PATIENT CARE IN KUNENE REGIONAL HEALTH DIRECTORATE, NAMIBIA

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ABSTRACT

Outsourcing is a method that enables transferring activities or tasks that are traditionally performed in-house, to a specialist provider. The findings from the literature on in-patient catering outsourcing are for the most part inconclusive. The purpose of this research is to evaluate the perceived impact of outsourced in-patient catering services in Kunene Regional Health Directorate on patient care, and to identify specific risks and benefits of in-patient catering outsourcing. The research further examines the outsourcing provider's level of compliance with food safety regulations and environmental laws, and enables recommendations to be made on how to improve the delivery of outsourced in-patient catering services in Kunene Regional Health Directorate.

In this cross-sectional descriptive survey, a quantitative research method was mainly utilized. Self-administered structured questionnaires were filled by 229 staff members in all three district hospitals of Kunene Regional Health Directorate, Namibia. The response to the questionnaire reached 87.7% and revealed the following: top four benefits or advantages of outsourcing are improved quantity and quality of in-patient meals, improved in-patient catering services, enhanced in-patient food safety, and improved focus on core activities (patient healthcare or service). Top four risks or disadvantages of outsourcing are bad publicity (poor catering services taint MoHSS' name), quality problems, loss of MoHSS' managerial control to outsourcing provider over how catering services are provided, and financial risks. Majority of the respondents perceived the in-patient catering outsourcing in their district hospitals as successful; with top four critical success factors for outsourcing being good relationships with in-patient catering outsourcing provider, effective communication throughout the process of outsourcing, regular site visits to the in-patient catering services, and strict control and supervision of in-patient catering staff by the outsourcing provider. Majority of the respondents had the opinion that in-patient outsourcing provider complied with food safety regulations and environmental laws; although some improvements still need to be implemented.

The impact of in-patient catering outsourcing on patient care is seen through provision of healthy meals to patients to meet their dietary needs, aid the speed of recovery, minimise susceptibility to infections, and promote physical and mental wellbeing. Successful in-patient catering outsourcing requires that outsourcing providers closely collaborate with all other stakeholders such as in-patients themselves and their relatives, dieticians', doctors, nurses, and Administration personnel. Furthermore, in-patient catering outsourcing relationship needs to be optimally supervised at all times in order to positively impact on patient care.

This research exposes, for the first time, the scope of in-patient catering outsourcing in district hospitals in Kunene Regional Health Directorate in Namibia, and presents end-user perceptions in promoting quality in-patient meals and enhanced patient care.

Key Words: Evaluation; Perceived Impact; In – Patient; Catering; Outsourcing; Administration; Perceptions; Quality

INTRODUCTION

Outsourcing has grown from a mere cost reduction tool in the 1990s to a powerful business strategy that can act as a competitive differentiator, allowing companies to increase productivity and the quality of their offerings by focusing on their core operations (Biehl, Halder, and Hart, 2011: 1). However, the process is challenging and requires well designed contracts, transparent bidding, clear performance obligations and credible funding mechanisms (Siddiqi, Masud, and Sabri, 2006: 867).

Past experience and recent research carried out in the public sector show that outsourcing can indisputably bring many benefits to the organisations which master the art of devising, deploying, and maintaining outsourcing relationships, but for many organisations, these benefits remain elusive (Vintar and Stanimirovic, 2011: 211).

The association between malnutrition and poor clinical outcome is well-established (Weekes, Spiro, Baldwin, Whelan, Thomas, Parkin, and Emery, 2009). A study by Kondrup, Allison, Elia, Vellas, and Plauth (2003: 415) indicates that about 30% of all patients in hospitals are undernourished. Still, the majority who depend on hospital food for all their nutrition continue to lose weight while in hospital, reflecting the inadequacy of current feeding policies (Allison, 2012).

One of the recommendations put forward by the Namibian MoHSS Health and Social Services System Review (2008: 15) is to explore the possibility of outsourcing the non-medical services and strengthen the current contractual arrangements that are in place. Kunene Regional Health Directorate currently outsources in-patient catering services to private contractors in all three district hospitals. Therefore, a need exists in organisations like the Namibian MoHSS to enhance patient care by promoting in-patient catering. Conducting in-patient catering outsourcing survey in MoHSS is fundamental to understanding the impact of in-patient catering on patient care.

BACKGROUND TO THE PROBLEM

The Namibian Ministry of Health and Social Services (MoHSS) has the mandate to oversee, provide and regulate public, private and non-governmental sectors in the provision of quality health and social services, ensuring equity, accessibility, affordability and sustainability. (MoHSS, 2009: 5).

The MoHSS organisation and management structure is organised in three levels: central, regional and district levels, in line with the National Health Policy Framework of 1998 (MoHSS, 2008: 37). The Ministry is structured into seven national directorates, 13 regional directorates in line with the 13 political administrative regions, and 34 health districts. The central level is responsible for policy formulation and review; policy planning and monitoring; strategic planning; coordination of services; resource mobilization and allocation; technical support to lower levels of services planning, care and implementation;

setting standards for health services delivery; performance management; and legislative responsibilities, regulation of services, and the overall stewardship of the health sector.

The regional level is responsible for, among other functions, the provision of leadership and management support to the entire region; translation of central level policies and strategies into operational plans for implementation at the regional and district levels; coordination of implementation of services, programmes and activities to ensure equity and access to services among districts; and provision of technical support to district level managers and staff as well as provision of technical input to key programmes. The district level is responsible for facilitating the coordination of activities at district level in order to ensure efficient and effective implementation of regional directed and managed projects and programmes; implementation of the district health package in collaboration with communities and other partners in health; managing district resources: e.g. financial, human, supplies including pharmaceuticals; support Community-based activities; and liaison with community leaders and other partners in health development.

The public health system is a unitary system managed by the MoHSS (MoHSS, 2010: 19) and has a network of health facilities consisting of approximately 1,150 outreach points, 260 clinics, 40 health centres, 30 district hospitals, 3 intermediate hospitals and 1 national referral hospital, as well as various social welfare service points (MoHSS, 2008: 10). The health system has been consolidated with active participation of the private sector and nongovernmental and faith-based organisations. (MoHSS, 2010: 2). Kunene Regional Health Directorate (KRHD) is structured into Regional Office, three health districts namely Opuwo, Outjo and Khorixas, 3 health centres, 21 clinics, and 169 outreach points.

The ultimate goal of the Government of Namibia and the MoHSS is the attainment of a level of health and social well-being by all Namibians, which will enable them to lead economically and socially productive lives (MOHSS, 2010: 5). The MoHSS Strategic Plan (2009 - 2013) endeavours to align its strategies and activities to the national initiatives as embodied in the Vision 2030, the NDPs, the Swapo Manifesto and the Millennium Development Goals (MoHSS, 2009: 6).

One of the main health sector reform initiatives that have taken place since independence is the introduction of managed competition (MoHSS, 2008: 23). The Ministry applies the principle of managed competition in the area of buying-in support services, such as catering and security services and maintenance and repair of equipment. These services are procured by competitive tendering through the National Tender Board (MoHSS, 2008: 23).

Outsourcing has economic, social and political effects and is undeniably a contentious and frequently discussed topic. (Office for Public Management, 2008: 7). In the past, there has been an outcry in the media about the poor performance of the outsourced catering services in State hospitals (Isaacs, 2008). Recently, Immanuel (2013) reported in the Namibian national media that Health Minister Richard Kamwi has warned that he wants to see “value for money and service delivery” from the controversial multi-million-dollar catering tender for State hospitals. As discussed by Immanuel (2013), after about a decade of continuous wrangling, there now seems to be clarity on the [catering] tender after 42 bids were accepted by the Tender Board.

Despite the increased popularity of contracting-out of health services in developing countries, its effectiveness on overall health system performance is not yet conclusive (Liu, et al. 2007: 200). In a literature review study on the efficiency of public sector outsourcing contracts, Jensen and Stonecash (2004: 3) quoting Pollitt and Bouckaert (2000) argue that despite a great deal of practical experience by governments of all levels, in many countries, there is still relatively little agreement about whether outsourcing is uniformly beneficial or what the magnitude of reductions in government expenditure might be.

Evaluating the impact of outsourced catering services on patient care in MoHSS will provide baseline information necessary for improving inpatient nutrition, enhancing patient care, and contributing to the Strategic Plan of the Ministry and the realization of NDP4, Vision 2030, and health-related Millennium Goals.

OBJECTIVES OF THE STUDY

- To identify specific risks and benefits of in-patient catering outsourcing in Kunene Regional Health Directorate.
- To ascertain the end-user perceptions on the impact of in-patient catering outsourcing on patient care in district hospitals of Kunene Regional Health Directorate.
- To examine the outsourcing provider's level of compliance with food safety regulations and environmental laws.
- To make recommendations on how to improve the delivery of outsourced in-patient catering services in Kunene Regional Health Directorate.
- What are the specific risks and benefits of the in-patient catering outsourcing in Kunene Regional Health Directorate?
- How do the end-users in district hospitals of Kunene Regional Health Directorate perceive the impact of outsourced in-patient catering services on patient care?
- To what extent do the outsourcing providers in Kunene Regional Health Directorate comply with food safety regulations and environmental laws?
- What recommendations can be made to improve the quality of outsourcing in-patient catering services?

This study will be a significant endeavour in promoting quality in-patient meals and enhanced patient care. This study will also be beneficial to MoHSS managers at district and regional levels when they supervise the implementation of MoHSS catering outsourcing strategy in KRHD. By understanding the perceived impact of in-patient catering outsourcing in KRHD, the policy makers at MoHSS National Level will be able to monitor, assess and benchmark the MoHSS outsourcing strategy during the re-evaluation and exit phase based on scientific evidence. Moreover, this study will provide recommendations on how to improve in-patient catering outsourcing in district hospitals of KRHD.

LITERATURE REVIEW

DEFINITION AND CONCEPT OF OUTSOURCING

According to Roberts (2001: 1) outsourcing refers to transferring services or operating functions that are traditionally performed internally to a third-party service provider and controlling the sourcing through contract and partnership management. Koszewska (2004: 228) says that outsourcing is a very successful and increasingly popular enterprise management strategy. It is a growing phenomenon. According to Everest Group, an advisory and research firm on global services, the global outsourcing market continued to steadily grow in 2010 with an annualized growth rate of 6 percent compared to 2008 with the year seeing transactions reach a 36-month high in the fourth quarter (Everest Group, 2011). GMA News (2012), citing the Everest Group, points out that the global outsourcing industry is seen generating $ 220 billion in revenues this year $35 billion in 2009.

The concept of outsourcing is not relatively new. Kakabadse and Kakabadse (2002: 189) point out that as far back as the Romans, efficient and systematic contracting out was undertaken for the purposes of tax collection. In the era of global market and e-economy, outsourcing is one of the main pillars of the new ways to conceive the relationships among companies (Franceschini et al., 2003: 246).

Some theories give justifications for why organisations should engage in outsourced contracts (theory of core competencies, resource-based theory, transaction cost theory, neoclassical

economic theory, and theory of firm boundaries) while others indicate challenges that may be associated with outsourced contracts (contractual theory, partnership and alliance theory, relational exchange theory, social exchange theory, agency theory, and stakeholder theory) (Ahimbisibwe, Nangoli, and Tusiime, 2012: 52) quoting Gottschalk and Solli-Saether (2005). Outsourcing arrangements are not without risks. Based on assumptions, international research, and their own research, Vintar and Stanimirovic (2011: 216) highlight the potential negative consequences and impacts of outsourcing in public sector organisations:

OUTSOURCING IN HEALTH SECTOR

Most, if not all, developing countries still rely predominantly on the public sector to provide essential health services (Liu, Hotchkiss, and Bose, 2007: 207). The public sector in developing countries is increasingly contracting with the non-state sector to improve access, efficiency and quality of health services (Siddiqi et al., 2006: 867). While government can use contracting to guide private sector delivery of health services, and to achieve national health objectives (World Bank, 2011), the interest of the non-state sector in contracting is to secure a regular source of revenue and gain enhanced recognition and credibility (Siddiqi et al., 2006: 867).

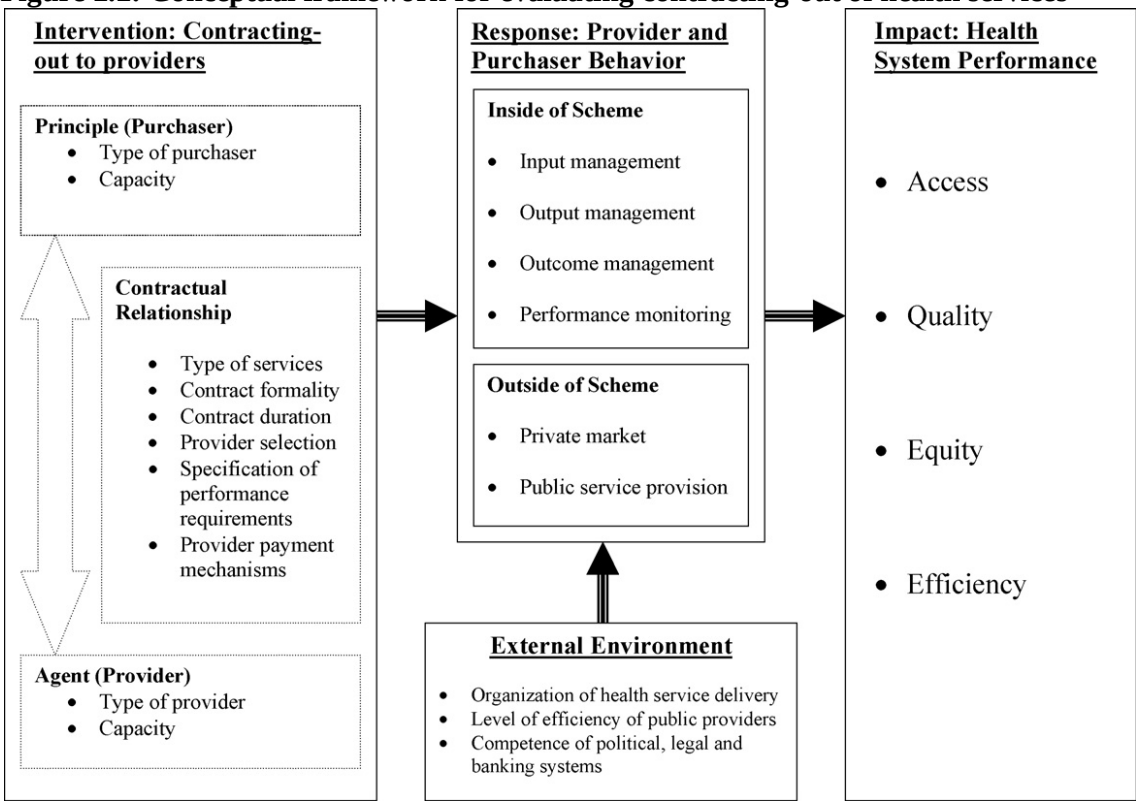
The drivers for outsourcing in healthcare sector are similar to those in other industries. Republic of Turkey Ministry of Health (2010: 32) points out that the hospitals primarily initiated outsourcing projects for the purpose of cost reduction. Other reasons that play a role in hospitals considering outsourcing include:

- Increasing patient satisfaction;
- Improving quality of services provided;
- Improving organisational prestige and image;
- Alleviating personnel shortage;
- Assuring service continuity;
- Bringing new technologies into hospital;
- Reducing investment (constant) costs;
- Focusing on solely treatment services;
- Enhancing competitive power against other health care facilities;
- Providing high-tech services requiring great amount of investment at hospital;
- Minimizing service costs;
- Controlling and reducing service costs;
- Promoting hospital's growth;
- Applying new management strategies;
- Sharing financial risks with provider;
- Restructuring hospital's organisational structure (getting it simple and flat);
- Recruiting more qualified staff at hospital;
- Assuring flexibility in management;
- Protecting hospitals from corrupted political effects;
- Reducing the number of full-time staff.

In developing countries, experience has thus far been limited to selective contracting for a range of non-clinical and clinical services, and there is greater experience with selective contracting for nonclinical than for clinical services (Mills and Broomberg, 1998: 27). However, research shows that more and more health facilities are outsourcing core (clinical) functions. In South Africa, for example, the selective contracting arrangements include both clinical services (supply of nursing personnel, blood product, hospital management contract, acute hospital care (explicit contracts), acute hospital care (implicit contracts with church/NGO providers), long term hospital care (TB and chronic psychiatric care), ambulatory care, and laboratory services) and non-clinical services (patient transport,

distribution of pharmaceutical services, gardening services, waste removal services, laundry, cleaning, security, billing functions, catering services, and equipment maintenance) (Mills and Broomberg, 1998: 30). In Namibia, however, the MoHSS tends to outsource non-clinical services.

Figure 2.2: Conceptual framework for evaluating contracting-out of health services



Source: Liu, et al. (2007: 202).

The in-patient catering outsourcing in KRHD can have both positive and negative impacts on patient care. Liu et al. (2008: 203) further point out that the effects of contracting-out are likely to be influenced by the characteristics of the contractual relationship between the government purchaser and the contracted providers:

- The type of services covered by the contract;
- The formality of the contract;
- The duration of the contract;
- Provider selection;
- The specification of performance requirements;
- Payment mechanisms.

The effects of outsourcing which may cause a negative impact on quality of service include (Office for Public Management, 2008: 16):

- Erosion of terms and conditions;
- Two-tier workforce;
- Uncertainty and the challenge of management;
- General erosion of the public service ethos;

- Reduction of access to training;
- Internalization of the labour market.

RESEARCH METHODOLOGY

TARGET POPULATION

The study was conducted within Kunene Regional Health Directorate (KRHD) of the Ministry of Health and Social Services (MoHSS) in Namibia. The Directorate is comprised of three health districts, namely Opuwo, Khorixas, and Outjo. Each health district runs a district hospital and is managed by a District Coordinating Committee (DCC). The Directorate Management Team sits in Opuwo district, which is also an administrative capital of Kunene region. Kunene region has an area of 115,260 square kilometres, with a total population of Weaknesses	Subjective; bias can be introduced in the execution and analysis of results. Not conclusive; research cannot be inferred to the population	Bias on the form and the questionnaire. Can be costly and time consuming. Usually implemented by outside marketing research firms.

Source: Ledgerwood and White (2006) citing Brand (2003), as taken from Research-methodology.net (2014).

LIMITATIONS OF THE RESEARCH

This research, which aims at evaluating the perceived impact of outsourced in-patient catering services in Kunene Regional Health Directorate on patient care, raises many issues for further study on outsourcing. Common method bias is possible in this research because a survey methodology was used. As concluded by Sica (2006), bias is a ubiquitous and insidious problem in research study design and execution, and while no study design is exempt from bias, some are more prone to particular types. This study was a non-experimental or descriptive research method therefore some types of bias had to be expected, including selection or sample bias, participation bias, and information bias. The study population of this research comprised only of the Kunene Regional Health Directorate (KRHD) employees in district hospitals, and not the Directorate Management Team (DMT) members. It is therefore hoped that the research subjects responded to survey questions honestly and did not feel limited or intimidated by the research since the researcher works in the same Directorate. Furthermore, this research is limited by the fact that the study of only one outsourced hospital service may not be sufficient in evaluating the quality of care received by patients.

Despite these limitations, however, the research contributed greatly in evaluating factors associated with success or failure of in-patient catering outsourcing in Kunene Regional Health Directorate (KRHD), and also in identifying areas in need of further research.

RESULTS, DISCUSSION AND INTERPRETATION OF FINDINGS

PARTICIPANTS' BACKGROUND

The statistical distribution of participant district hospital staff background by gender is presented in the Table 4.2.1.

Table 4.2.1: Gender distribution by district and region

	Female		**Male**		**Total**	
Opuwo District	63	58.3%	45	41.7%	108	**100**%
Outjo District	50	76.9%	15	23.1%	65	**100**%
Khorixas District	41	73.2%	15	26.8%	56	**100**%
KUNENE REGION	**154**	**67.2**%	**75**	**32.8**%	**229**	**100**%

UNDERSTANDING OF THE CONCEPT OF OUTSOURCING

Respondents' understanding of the concept of outsourcing is statistically summarized in Table 4.2.2. As shown in the Table 4.2.2, 42.8% of the respondents understood the concept of outsourcing, while 39.3% of the respondents understood the concept of outsourcing but not completely. A small proportion of the respondents (14.8%) reported not to understand the concept of outsourcing at all (Table 4.2.2). In Opuwo, Outjo and Khorixas districts, the proportions of respondents who understood the concept of outsourcing were 43.5%, 35.4%, and 50.0% respectively. 17.6% of respondents in Opuwo district did not understand the concept of outsourcing at all, compared with 16.9% in Outjo district, and 7.1% in Khorixas district.

Table 4.2.2: Respondents' understanding of the concept of outsourcing

	Yes, absolutely	**Yes, but not completely**	**No, not at all**	**Not stated**	**Total**
Opuwo District	47 43.5%	41 37.9%	19 17.6%	1 0.9%	**108** **100.0%**
Outjo District	23 35.4%	28 43.0%	11 16.9%	3 4.6%	**65** **100.0%**
Khorixas District	28 50.0%	21 37.5%	4 7.1%	3 5.3%	**56** **100.0%**
KUNENE REGION	**98** **42.8%**	**90** **39.3%**	**34** **14.8%**	**7** **3.0%**	**229** **100.0%**

REASONS OR RATIONALE FOR OUTSOURCING IN-PATIENT CATERING SERVICES IN THE DISTRICT HOSPITAL

Reasons or rationale for outsourcing in-patient catering services are shown in Table 4.2.3. The top four reasons that led the MoHSS Headquarters in Windhoek to the decision to outsource in-patient catering services in the district hospital include to improve food and service quality (22.1%), improve focus on core activities (patient healthcare or service) (13.1%), reduce and control costs (13.1%) and improve customer satisfaction (13.0%). In Opuwo district, the top four reasons for outsourcing are to improve food and service quality (22.0%), reduce and control cost (14.0%), improve focus on core activities (13.8%), and improve customer satisfaction (12.7%). In Outjo district, the top four reasons for outsourcing are to improve food and service quality (24.7%), improve customer satisfaction (15.5%), improve focus on core activities (13.4%), and reduce and control cost (11.3%). In Khorixas district, the top four reasons for outsourcing are to improve food and service quality (19.9%), reduce and control cost (13.1%), improve focus on core activities (11.7%), and improve customer satisfaction (11.2%).

Table 4.2.3: Reasons for outsourcing in-patient catering services

	Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**

Reduce and control cost	51 14.0%	22 11.3%	27 13.1%	**100** **13.1%**
Reduce number of MoHSS staff	25 6.9%	14 7.2%	12 5.8%	**51** **6.7%**
Improve food and service quality	80 22.0%	48 24.7%	41 19.9%	**169** **22.1%**
Operational flexibility, speed and innovation	26 7.2%	12 6.2%	20 9.7%	**58** **7.6%**
Gain specialized skills, knowledge, and technologies not available in MoHSS	36 9.9%	16 8.2%	18 8.7%	**70** **9.2%**
Improve customer satisfaction	46 12.7%	30 15.5%	23 11.2%	**99** **13.0%**
Improve focus on core activities	50 13.8%	26 13.4%	24 11.7%	**100** **13.1%**
Government policies	26 7.2%	10 5.2%	18 8.7%	**54** **7.1%**
Response to public demand	22 6.1%	15 7.7%	12 5.8%	**49** **6.4%**
Other	1 0.3%	1 0.5%	1 0.5%	**3** **0.4%**
Not stated	0 0.0%	0 0.0%	10 4.9%	**10** **1.3%**
	363 **100.0%**	**194** **100.0%**	**206** **100.0%**	**763** **100.0%**

BENEFITS OR ADVANTAGES OF IN-PATIENT CATERING OUTSOURCING IN THE DISTRICT HOSPITAL

The benefits or advantages of in-patient catering outsourcing in the district hospital are summarized in Table 4.2.4. The top four benefits or advantages of in-patient catering outsourcing in the district hospital reported by the respondents include improved quantity and quality of in-patient meals (22.6%), improved in-patient catering services (17.8%), enhanced in-patient food safety (14.6%), and improved focus on core activities (patient healthcare or service) (12.8%). In Opuwo district, the top four benefits or advantages are improved quantity and quality of in-patient meals (24.1%), improved in-patient catering services (18.8%), enhanced in-patient food safety (15.9%), and improved focus on core activities (patient healthcare or service) (13.3%). In Outjo district, the top four benefits or advantages are improved quantity and quality of in-patient meals (23.1%), improved in-patient catering services (17.6%), improved focus on core activities (patient healthcare or service) (14.5%), and improved customer satisfaction (13.6%). In Khorixas district, the top four benefits or advantages are improved quantity and quality of in-patient meals (19.4%), improved in-patient catering services (16.1%), enhanced in-patient food safety (14.0%), and cost reduction (10.8%) or improved customer satisfaction (10.8%).

Table 4.2.4: Benefits or advantages of in-patient catering outsourcing

	Opuwo District	**Outjo District**	**Khorixas District**	**KUNENE REGION**
Improved quantity and quality of in-patient meals	83 24.1%	51 23.1%	36 19.4%	**170** **22.6%**
Improved in-patient catering services	65 18.8%	39 17.6%	30 16.1%	**134** **17.8%**

Enhanced in-patient food safety	55 15.9%	29 13.1%	26 14.0%	**110** **14.6%**
Cost reduction	34 9.9%	24 10.9%	20 10.8%	**78** **10.4%**
Improved focus on core activities (patient healthcare or service)	46 13.3%	32 14.5%	18 9.7%	**96** **12.8%**
Improved customer satisfaction	38 11.0%	30 13.6%	20 10.8%	**88** **11.7%**
Improved access and retention of vital skills and technology	19 5.5%	15 6.8%	11 5.9%	**45** **6.0%**
Other	5 1.4%	1 0.5%	1 0.5%	**7** **0.9%**
Not stated	0 0.0%	0 0.0%	24 12.9%	**24** **3.2%**
	345 **100.0%**	**221** **100.0%**	**186** **100.0%**	**752** **100.0%**

RISKS OR DISADVANTAGES OF IN-PATIENT CATERING OUTSOURCING IN THE DISTRICT HOSPITAL

The risks or disadvantages of in-patient catering outsourcing in the district hospital are presented in Table 4.2.5. The four topmost risks or disadvantages of in-patient catering outsourcing in the district hospital include bad publicity (poor catering services taint MoHSS' name) (17.2%), quality problems (15.7%), loss of MoHSS' managerial control to outsourcing provider over how catering services are provided (11.3%) and financial risks (10.8%). In Opuwo district, the risks or disadvantages are bad publicity (poor catering services taint MoHSS name) (20.1%), quality problems (14.2%), loss of MoHSS' managerial control to outsourcing provider over how catering services are provided (11.6%), and failure of catering outsourcing provider to adapt to MoHSS' growing and changing needs (10.2%). In Outjo district, the risks or disadvantages are quality problems (15.9%), bad publicity (poor catering services taint MoHSS name) (15.5%), financial risks (12.2%), and loss of MoHSS' managerial control to outsourcing provider over how catering services are provided (11.0%). In Khorixas district, the risks or disadvantages are quality problems (17.8%), bad publicity (poor catering services taint MoHSS name) (14.7%), financial risks (11.6%), and failure of catering outsourcing provider to adapt to MoHSS' growing and changing needs (11.6%).

Table 4.2.5: Risks or disadvantages of in-patient catering outsourcing by district

	Opuwo District	**Outjo District**	**Khorixas District**	**KUNENE REGION**
Quality problems	49 14.2%	39 15.9%	40 17.8%	**128** **15.7%**
Bad publicity (poor catering services taint MoHSS name)	69 20.1%	38 15.5%	33 14.7%	**140** **17.2%**
Financial risks	32 9.3%	30 12.2%	26 11.6%	**88** **10.8%**
Hidden costs not prescribed on the Contract such as legal fees and time	30 8.7%	17 6.9%	16 7.1%	**63** **7.7%**
Loss of MoHSS' managerial control to outsourcing provider over how catering services are provided	40 11.6%	27 11.0%	25 11.1%	**92** **11.3%**
Cultural barriers	35	13	16	**64**

	10.2%	5.3%	7.1%	**7.9%**
Threat to security and confidentiality of MoHSS' information	27 7.8%	21 8.6%	14 6.2%	**62** **7.6%**
Failure of catering outsourcing provider to adapt to MoHSS' growing and changing needs	35 10.2%	15 6.1%	26 11.6%	**76** **9.3%**
Loss of vital skills and technology due to increased MoHSS' dependence on independent outsourcing providers	27 7.8%	18 7.3%	17 7.6%	**62** **7.6%**
Others	0 0.0%	0 0.0%	3 1.3%	**3** **0.4%**
Not stated	0 0.0%	27 11.0%	9 4.0%	**36** **4.4%**
	344 **100.0%**	**245** **100.0%**	**225** **100.0%**	**814** **100.0%**

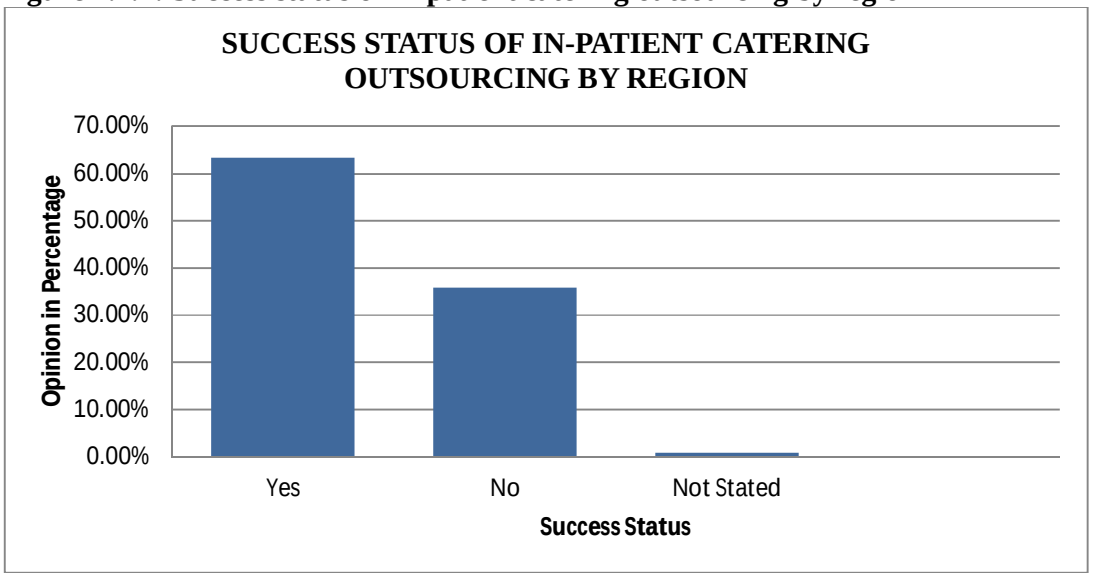
SUCCESS OR EFFICIENCY OF IN-PATIENT CATERING OUTSOURCING IN THE DISTRICT HOSPITAL

The success or efficiency of in-patient catering outsourcing in the district hospital is summarized in Table 4.2.6 and Figure 4.2.7. The large majority of the respondents (63.3%) were of the opinion that in-patient catering outsourcing in their district hospitals was successful. Only a small proportion of the respondents (35.8%) considered that the in-patient catering outsourcing in their district hospitals was not successful.

Table 4.2.6: Success status of in-patient catering outsourcing by region

	Count	**Percentage**
Yes	145	63.3%
No	82	35.8%
Not stated	2	0.9%
KUNENE REGION	**229**	**100.0%**

Figure 4.2.1: Success status of in-patient catering outsourcing by region



CRITICAL SUCCESS FACTORS FOR IN-PATIENT CATERING OUTSOURCING IN THE DISTRICT HOSPITAL

The critical success factors for in-patient catering outsourcing in the district hospital are summarized in Table 4.2.7. The four topmost critical success factors for in-patient catering outsourcing in the district hospital include good relationships with in-patient catering outsourcing provider (14.9%), effective communication throughout the process of outsourcing (13.2%), regular site visits to the in-patient catering services (11.5%), and strict control and supervision of in-patient catering staff by the outsourcing provider (10.7%). In Opuwo district, the critical success factors are effective communication throughout the process of outsourcing (17.6%), good relationships with in-patient catering outsourcing provider (13.5%), regular collection of customer satisfaction information relating to in-patient catering services (13.5%), and financial penalties regularly levied against the outsourcing provider for poor performance (13.1%). In Outjo district, the critical success factors are good relationships with in-patient catering outsourcing provider (15.3%), regular site visits to the in-patient catering services (11.7%), strict control and supervision of in-patient catering staff by the outsourcing provider (10.7%), and effective communication throughout the process of outsourcing (9.7%). In Khorixas district, the critical success factors are good relationships with in-patient catering outsourcing provider (17.1%), regular site visits to the in-patient catering services (13.3%), strict control and supervision of in-patient catering staff by the outsourcing provider (11.4%), and effective Contract monitoring undertaken by managers and at ward level by the individual ward in-charge (10.8%).

Table 4.2.7: Critical success factors for in-patient catering outsourcing in the district hospital

	Opuwo District	**Outjo District**	**Khorixas District**	**KUNENE REGION**
MOHSS' well-structured strategic plan for outsourcing	0 0.0%	19 9.7%	11 7.0%	**30** **4.7%**
Enhanced knowledge on outsourcing within the district hospital	0 0.0%	14 7.1%	13 8.2%	**27** **4.2%**
Good relationships with in-patient catering outsourcing provider	39 13.5%	30 15.3%	27 17.1%	**96** **14.9%**
Effective Contract monitoring undertaken by managers and at ward level by the individual ward in-charge	27 9.3%	18 9.2%	17 10.8%	**62** **9.6%**
Effective communication throughout the process of outsourcing	51 17.6%	19 9.7%	15 9.5%	**85** **13.2%**
Regular site visits to the in-patient catering services	30 10.4%	23 11.7%	21 13.3%	**74** **11.5%**
Regular collection of customer satisfaction information relating to in-patient catering services	39 13.5%	17 8.7%	10 6.3%	**66** **10.3%**
Strict control and supervision of in-patient catering staff by the outsourcing provider	30 10.4%	21 10.7%	18 11.4%	**69** **10.7%**
Financial penalties regularly levied against the outsourcing provider for poor performance	38 13.1%	12 6.1%	5 3.2%	**55** **8.6%**
Other	35 12.1%	5 2.6%	3 1.9%	**43** **6.7%**
Not stated	0 0.0%	18 9.2%	18 11.4%	**36** **5.6%**

Total	**289** **100.0%**	**196** **100.0%**	**158** **100.0%**	**643** **100.0%**

FUTURE MOHSS OUTSOURCING FORECAST

The future MoHSS outsourcing forecast is summarized in Table 4.2.8. The four topmost activities or tasks that the MoHSS is foreseen outsourcing in the next two years in addition to what is currently outsourced in the district hospital include cleaning services (21.7%), ambulance services (17.9%), laundry services (16.6%), and nursing services (14.4%). In Opuwo district, the four topmost activities or tasks that the MoHSS is foreseen outsourcing are cleaning services (21.2%), ambulance services (19.9%), nursing services (19.6%), and laundry services (11.1%). In Outjo district, the four topmost activities or tasks that the MoHSS is foreseen outsourcing are cleaning services (19.9%), laundry services (18.8%), ambulance services (16.2%), and Human Resource Management (11.0%). In Khorixas district, the four topmost activities or tasks that the MoHSS is foreseen outsourcing are cleaning services (24.6%), laundry services (24.6%), ambulance services (16%), and nursing services (10.6%).

Table 4.2.8: Future MoHSS outsourcing forecast by district

	Opuwo District	**Outjo District**	**Khorixas District**	**KUNENE REGION**
Ambulance Services	59 19.9%	31 16.2%	24 16%	**114** **17.9%**
Cleaning Services	63 21.2%	38 19.9%	37 24.6%	**138** **21.7%**
Nursing Services	58 19.6%	18 9.4%	16 10.6%	**92** **14.4%**
Laundry Services	33 11.1%	36 18.8%	37 24.6%	**106** **16.6%**
Logistics and Procurement	19 6.4%	15 7.8%	5 3.3%	**39** **6.1%**
Finance and Accounts	27 9.1%	7 3.6%	8 5.3%	**42** **6.6%**
Human Resource Management	9 3.0%	21 11.0%	7 4.6%	**37** **5.8%**
Health Information Systems	11 3.7%	10 5.2%	5 3.3%	**26** **4.1%**
Pharmaceutical Services	17 5.7%	9 4.7%	6 4.0%	**32** **5.0%**
Other	0 0.0%	0 0.0%	2 1.3%	**2** **0.3%**
Not stated	0 0.0%	6 3.1%	3 2.0%	**9** **1.4%**
Total	**296** **100%**	**191** **100%**	**150** **100%**	**637** **100.0%**

END-USER SATISFACTION SURVEY ON IN-PATIENT CATERING AT THE DISTRICT HOSPITAL

The end-user satisfaction survey on in-patient catering at the district hospital is presented in Table 4.2.9. The vast majority of the respondents (86.9%) reported that no end-user

satisfaction survey on in-patient catering has been carried out in their district hospitals within the last two years. Only a small proportion of the respondents (11.8%) was of the opinion that end-user satisfaction survey on in-patient catering has been carried out in their district hospitals within the last two years. In Opuwo, Outjo and Khorixas districts, the proportions of respondents who reported that no end-user satisfaction survey on in-patient catering has been carried out in their district hospitals were 88.0%, 86.2%, and 85.7% respectively.

Table 4.2.9: End-user satisfaction survey on in-patient catering by district

	Opuwo District	**Outjo District**	**Khorixas District**	**KUNENE REGION**
Yes	13 12.0%	8 12.3%	6 10.7%	**27** **11.8%**
No	95 88.0%	56 86.2%	48 85.7%	**199** **86.9%**
Don't know	0 0.0%	0 0.0%	1 1.8%	**1** **0.4%**
Not stated	0 0.0%	1 1.5%	1 1.8%	**2** **0.9%**
	108 **100.0%**	**65** **100.0%**	**56** **100.0%**	**229** **100.0%**

END-USER PERCEPTIONS ON IN-PATIENT CATERING OUTSOURCING IN THE DISTRICT HOSPITAL

The end-user perceptions on in-patient catering outsourcing in the district hospital are summarized in Table 4.2.10, Table 4.2.11, Table 4.2.12, Table 4.2.13, Table 4.2.14, Table 4.2.15, Table 4.2.16, Table 4.2.17, Table 4.2.18, Table 4.2.19, Table 4.2.20 and Table 4.2.21. For analysis purposes, Likert scale responses were assigned numerical codes as follows: strongly agree = 1, agree = 2, don't know = 3, disagree = 4, and strongly disagree = 5. In the following Tables, however, the number of responses for each Likert level in each question is aggregated. Table 4.2.10 treats all the responses as a whole, while the remaining Tables distinguish between Opuwo, Outjo and Khorixas district responses. More discussion follows each specific end-user perception below.

Table 4.2.10: Levels of end-user perceptions on in-patient catering outsourcing

	Perception Levels					**Total (N)**
	Strongly agree (1)	**Agree (2)**	**Don't know (3)**	**Disagree (4)**	**Strongly disagree (5)**	
Satisfaction with current provider (perceived by MoHSS staff)	23	96	28	56	23	**226**
	10.2	42.4	12.4	24.8	10.2	
Satisfaction with current provider (perceived by in-patients and the Public)	12	61	65	59	28	**225**
	5.4	27.2	28.8	26.2	12.4	
Satisfaction with transparency and overall accountability	14	72	60	59	17	**222**
	6.4	32.4	27.0	26.6	7.6	
Satisfaction with skills and experience of hospital staff who monitor catering services' Contract	26	64	46	66	24	**226**
	11.6	28.4	20.4	29.2	10.6	
Satisfaction with timely delivery of catering services	30	95	36	48	16	**225**
	13.4	42.2	16	21.4	7.2	

Improved quality of catering services	21	62	55	61	25	**224**
	9.4	27.6	24.6	27.2	11.2	
Deteriorated quality of catering services	16	52	67	61	26	**222**
	7.2	23.4	30.2	27.4	11.8	
Fast recovery on in-patients because of their meals	18	55	60	62	27	**222**
	8.2	24.8	27.0	28.0	12.2	
Access to catering services' Contract	13	33	59	57	59	**221**
	5.8	15.0	26.6	25.8	26.6	
Teamwork between MoHSS staff and catering employees	22	85	34	62	21	**224**
	9.8	38.0	15.2	27.6	9.4	
Hospital's readiness and capability in taking over catering services from outsourcing provider	19	36	69	51	51	**226**
	8.4	16.0	30.6	22.6	22.6	

END-USER SATISFACTION AND HAPPINESS WITH CURRENT CATERING OUTSOURCING PROVIDER

Majority of the respondents (42.5%) agreed that they were satisfied and happy with the current catering outsourcing provider in their district hospital (Table 4.2.11). Only a small proportion of respondents (10.2%) strongly agreed that they were satisfied and happy with their current catering outsourcing provider. In Opuwo district, 8.6% of the respondents strongly agreed that they were satisfied and happy with the current catering outsourcing provider in their district hospital; while 13.3% of the respondents strongly disagreed. In Outjo district, 15.4% of the respondents strongly agreed that they were satisfied and happy with the current catering outsourcing provider in their district hospital; while only 6.1% of the respondents strongly disagreed. In Khorixas district, 7.1% of the respondents strongly agreed that they were satisfied and happy with the current catering outsourcing provider in their district hospital; while 8.9% of the respondents strongly disagreed.

Table 4.2.11: End-user satisfaction and happiness with current catering outsourcing provider

		Opuwo District	Outjo District	Khorixas District	**Kunene Region**
I am satisfied and happy with the current catering outsourcing provider in our district hospital	Strongly agree	9 8.6%	10 15.4%	4 7.1%	**23** **10.2%**
	Agree	43 40.9%	33 50.7%	20 35.7%	**96** **42.5%**
	Don't know	11 10.5%	8 12.3%	9 16.0%	**28** **12.4%**
	Disagree	28 26.7%	10 15.4%	18 32.1%	**56** **24.8%**
	Strongly disagree	14 13.3%	4 6.1%	5 8.9%	**23** **10.2%**
Total		**105** **100.0%**	**65** **100.0%**	**56** **100.0%**	**226** **100.0%**

IN-PATIENTS AND THE PUBLIC SATISFACTION AND HAPPINESS WITH THE CATERING SERVICES

As shown in the Table 4.2.12, 27.1% of respondents agreed that in-patients and the Public are satisfied and happy with the catering services in their district hospitals. Only 5.3% of the

respondents strongly agreed that in-patients and the Public are satisfied and happy with the catering services. In Opuwo district, only 4.7% of the respondents strongly agreed that in-patients and the Public are satisfied and happy with the catering services in their district hospitals; while 18.7% of the respondents strongly disagreed. In Outjo district, 9.5% of the respondents strongly agreed that in-patients and the Public are satisfied and happy with the catering services in their district hospitals; while only 1.6% of the respondents strongly disagreed. In Khorixas district, only 1.8% of the respondents strongly agreed that in-patients and the Public are satisfied and happy with the catering services in their district hospitals; while 12.7% strongly disagreed.

Table 4.2.12: In-patients and the Public satisfaction and happiness with the catering services

		Opuwo District	Outjo District	Khorixas District	**Kunene Region**
In-patients and the Public are satisfied and happy with the catering services in our district hospital	Strongly agree	5 4.7%	6 9.5%	1 1.8%	**12** **5.3%**
	Agree	27 25.2%	21 33.3%	13 23.6%	**61** **27.1%**
	Don't know	29 27.1%	15 23.8%	21 38.2%	**65** **28.9%**
	Disagree	26 24.3%	20 31.7%	13 23.6%	**59** **26.2%**
	Strongly disagree	20 18.7%	1 1.6%	7 12.7%	**28** **12.4%**
Total		**107** **100.0%**	**63** **100.0%**	**55** **100.0%**	**225** **100.0%**

END-USER SATISFACTION AND HAPPINESS WITH THE TRANSPARENCY AND OVERALL ACCOUNTABILITY OF THE OUTSOURCED CATERING SERVICES

As shown in the Table 4.2.13, the majority of the respondents (32.4%) agreed that they were satisfied and happy with the transparency and overall accountability of the outsourced catering services in their district hospital. Only 6.3% of the respondents strongly agreed that they were satisfied and happy with the transparency and overall accountability of the outsourced catering services. In Opuwo district, only 5.7% of the respondents strongly agreed that they were satisfied and happy with the transparency and overall accountability of the outsourced catering services in their district hospital; while 12.3% of the respondents strongly disagreed. In Outjo district, 11.3% of the respondents strongly agreed that they were satisfied and happy with the transparency and overall accountability of the outsourced catering services in their district hospital; while only 1.6% strongly disagreed. In Khorixas district, only 3.8% of the respondents strongly agreed that they were satisfied and happy with the transparency and overall accountability of the outsourced catering services in their district hospital; while 5.7% strongly disagreed.

Table 4.2.13: End-user satisfaction and happiness with the transparency and overall accountability of the outsourced catering services

		Opuwo District	Outjo District	Khorixas District	**Kunene Region**
I am satisfied and happy with the transparency and overall accountability of the outsourced catering	Strongly agree	6 5.7%	6 11.3%	2 3.8%	**14** **6.3%**
	Agree	36 33.9%	21 33.3%	15 28.3%	**72** **32.4%**

services in our district hospital	Don't know	21 19.8%	23 36.5%	16 30.2%	**60** **27.2%**
	Disagree	30 28.3%	12 19.0%	17 32.0%	**59** **26.6%**
	Strongly disagree	13 12.3%	1 1.6%	3 5.7%	**17** **7.6%**
Total		**106** **100.0%**	**63** **100.0%**	**53** **100.0%**	**222** **100.0%**

END-USER SATISFACTION AND HAPPINESS WITH THE SKILLS AND EXPERIENCE OF HOSPITAL STAFF WHO MONITOR THE OUTSOURCED CATERING SERVICES' CONTRACT

As shown in the Table 4.2.14, 29.2% of the respondents disagreed that they were satisfied and happy with the skills and experience of their hospital staff that monitor the outsourced catering services' Contract. 28.3% of the respondents agreed that they were satisfied and happy with the skills and experience of their hospital staff that monitor the outsourced catering services' Contract. In Opuwo district, 8.5% of the respondents strongly agreed that they were satisfied and happy with the skills and experience of their hospital staff that monitor the outsourced catering services' Contract; while 14.2% of the respondents strongly disagreed. In Outjo district, 20.3% of the respondents strongly agreed that they were satisfied and happy with the skills and experience of their hospital staff that monitor the outsourced catering services' Contract; while only 1.6% of the respondents strongly disagreed. In Khorixas district, 7.1% of the respondents strongly agreed that they were satisfied and happy with the skills and experience of their hospital staff that monitor the outsourced catering services' Contract; while 14.3% of the respondents strongly disagreed.

Table 4.2.14: End-user satisfaction and happiness with the skills and experience of hospital staff who monitor the outsourced catering services' Contract

		Opuwo District	Outjo District	Khorixas District	**Kunene Region**
I am satisfied and happy with the skills and experience of our hospital staff who monitor the outsourced catering services' Contract	Strongly agree	9 8.5%	13 20.3%	4 7.1%	**26** **11.5%**
	Agree	27 22.6%	18 28.1%	19 33.9%	**64** **28.3%**
	Don't know	18 16.9%	16 24.6%	12 21.4%	**46** **20.4%**
	Disagree	37 34.9%	16 25.0%	13 23.2%	**66** **29.2%**
	Strongly disagree	15 14.2%	1 1.6%	8 14.3%	**24** **10.6%**
Total		**106** **100.0%**	**64** **100.0%**	**56** **100.0%**	**226** **100.0%**

SATISFACTION AND HAPPINESS WITH THE TIMELY DELIVERY OF THE OUTSOURCED CATERING SERVICES

As shown in the Table 4.2.15, the majority of the respondents (42.2%) are satisfied and happy with the timely delivery of outsourced catering services in their district hospitals. Only 7.1% of the respondents disagreed that they were satisfied and happy with the timely delivery of outsourced catering services. In Opuwo district, 8.6% of the respondents strongly agreed that they were satisfied and happy with the timely delivery of outsourced catering services;

while 11.4% of the respondents strongly disagreed. In Outjo district, 21.9% of the respondents strongly agreed that they were satisfied and happy with the timely delivery of outsourced catering services; while only 1.6% of the respondents strongly disagreed. In Khorixas district, 12.5% of the respondents strongly agreed that they were satisfied and happy with the timely delivery of outsourced catering services; while only 5.4% of the respondents strongly disagreed.

Table 4.2.15: Satisfaction and happiness with the timely delivery of the outsourced catering services

		Opuwo District	Outjo District	Khorixas District	**Kunene Region**
I am satisfied and happy with the timely delivery of outsourced catering services	Strongly agree	9 8.6%	14 21.9%	7 12.5%	**30** **13.3%**
	Agree	41 39.0%	25 39.0%	29 51.8%	**95** **42.2%**
	Don't know	14 13.3%	12 18.8%	10 17.8%	**36** **16.0%**
	Disagree	29 27.6%	12 18.8%	7 12.5%	**48** **21.3%**
	Strongly disagree	12 11.4%	1 1.6%	3 5.4%	**16** **7.1%**
Total		**105** **100.0%**	**64** **100.0%**	**56** **100.0%**	**225** **100.0%**

IMPROVEMENT OF QUALITY OF OUTSOURCED IN-PATIENT CATERING SERVICES

As shown in the Table 4.2.16, 27.7% of the respondents agreed that the quality of outsourced in-patient catering services in their district hospitals has much improved. 27.2% of the respondents disagreed that the quality of outsourced in-patient catering services has much improved. In Opuwo district, 7.6% of the respondents strongly agreed that the quality of outsourced in-patient catering services in their district hospitals has much improved; while 20.9% of the respondents strongly disagreed. In Outjo district, 17.5% of the respondents strongly agreed that the quality of outsourced in-patient catering services in their district hospitals has much improved; while none (0.0%) of the respondents strongly disagreed. In Khorixas district, only 3.6% of the respondents strongly agreed that the quality of outsourced in-patient catering services in their district hospitals has much improved; while 5.4% of the respondents strongly disagreed.

Table 4.2.16: Improvement of quality of outsourced in-patient catering services

		Opuwo District	Outjo District	Khorixas District	**Kunene Region**
Quality of outsourced in-patient catering services in our district hospital has much improved	Strongly agree	8 7.6%	11 17.5%	2 3.6%	**21** **9.4%**
	Agree	26 24.8%	20 31.7%	16 28.6%	**62** **27.7%**
	Don't know	19 18.1%	21 33.3%	15 26.8%	**55** **24.6%**
	Disagree	30 28.6%	11 17.5%	20 35.7%	**61** **27.2%**
	Strongly disagree	22 20.9%	0 0.0%	3 5.4%	**25** **11.2%**

Total	**105** **100.0%**	**63** **100.0%**	**56** **100.0%**	**224** **100.0%**

DETERIORATION OF QUALITY OF OUTSOURCED IN-PATIENT CATERING SERVICES

As shown in the Table 4.2.17, 30.2% of the respondents did not know whether the quality of outsourced in-patient catering services in their district hospitals has much deteriorated. Only 7.2% of the respondents strongly agreed that the quality of outsourced in-patient catering services has much deteriorated. In Opuwo district, 8.7% of the respondents strongly agreed that the quality of outsourced in-patient catering services has much deteriorated; while 13.5% of the respondents strongly disagreed. In Outjo district, 7.8% of the respondents strongly agreed that the quality of outsourced in-patient catering services has much deteriorated; while 12.5% of the respondents strongly disagreed. In Khorixas district, only 3.7% of the respondents strongly agreed that the quality of outsourced in-patient catering services has much deteriorated; while 7.4% of the respondents strongly disagreed.

Table 4.2.17: Deterioration of quality of outsourced in-patient catering services

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
Quality of outsourced in-patient catering services in our district hospital has much deteriorated	Strongly agree	9 8.7%	5 7.8%	2 3.7%	**16** **7.2%**
	Agree	19 18.3%	11 17.2%	22 40.7%	**52** **23.4%**
	Don't know	30 28.8%	23 35.9%	14 25.9%	**67** **30.2%**
	Disagree	32 30.8%	17 26.6%	12 22.2%	**61** **27.5%**
	Strongly disagree	14 13.5%	8 12.5%	4 7.4%	**26** **11.7%**
Total		**104** **100.0%**	**64** **100.0%**	**54** **100.0%**	**222** **100.0%**

IMPACT OF HOSPITAL CATERING SERVICES ON THE RECOVERY OF IN-PATIENTS

As shown in the Table 4.2.18, 27.9% of the respondents disagreed that in-patients in their district hospitals recover faster because of the quantity, quality and calories of their meals. Only 8.1% of the respondents strongly disagreed that in-patients recover faster because of the quantity, quality and calories of their meals. In Opuwo district, only 7.6% of the respondents strongly agreed that in-patients in their district hospitals recover faster because of the quantity, quality and calories of their meals; while 17.1% of the respondents strongly disagreed. In Outjo district, 7.9% of the respondents strongly agreed that in-patients in their district hospitals recover faster because of the quantity, quality and calories of their meals; while only 4.8% of the respondents strongly disagreed. In Khorixas district, only 9.3% of the respondents strongly agreed that in-patients in their district hospitals recover faster because of the quantity, quality and calories of their meals; while 11.1% of the respondents strongly disagreed.

Table 4.2.18: Impact of hospital catering services on the recovery of in-patients

		Opuwo District	Outjo District	Khorixas District	**Kunene Region**
In-patients in our	Strongly agree	8	5	5	**18**

district hospital recover faster because of the quantity, quality and calories of their meals		7.6%	7.9%	9.3%	**8.1%**
	Agree	28 26.7%	15 23.8%	12 22.2%	**55** **24.8%**
	Don't know	24 22.9%	22 34.9%	14 25.9%	**60** **27.0%**
	Disagree	27 25.7%	18 28.6%	17 31.5%	**62** **27.9%**
	Strongly disagree	18 17.1%	3 4.8%	6 11.1%	**27** **12.2%**
Total		**105** **100.0%**	**63** **100.0%**	**54** **100.0%**	**222** **100.0%**

ACCESS TO THE OUTSOURCED CATERING SERVICES' CONTRACT

As shown in the Table 4.2.19, 26.7% of the respondents strongly disagreed that they have seen the outsourced catering services Contract at least once in the past twelve months. Only 5.9% of the respondents strongly agreed that they have seen the outsourced catering services Contract at least once in the past twelve months. In Opuwo district, only 3.8% of the respondents strongly agreed that they have seen the outsourced catering services Contract at least once in the past twelve months; while 19.2% of the respondents strongly disagreed. In Outjo district, 12.7% of the respondents strongly agreed that they have seen the outsourced catering services Contract at least once in the past twelve months; while 33.3% of the respondents strongly disagreed. In Khorixas district, only 1.9% of the respondents strongly agreed that they have seen the outsourced catering services Contract at least once in the past twelve months; while 33.3% of the respondents strongly disagreed.

Table 4.2.19: Access to the outsourced catering services' Contract

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
I have seen the outsourced catering services Contract at least once in the past twelve months	Strongly agree	4 3.8%	8 12.7%	1 1.9%	**13** **5.9%**
	Agree	19 18.3%	9 14.3%	5 9.3%	**33** **14.9%**
	Don't know	29 27.9%	8 12.7%	22 40.7%	**59** **26.7%**
	Disagree	32 30.8%	17 26.9%	8 14.8%	**57** **25.8%**
	Strongly disagree	20 19.2%	21 33.3%	18 33.3%	**59** **26.7%**
Total		**104** **100.0%**	**63** **100.0%**	**54** **100.0%**	**221** **100.0%**

TEAMWORK BETWEEN MOHSS STAFF AND OUTSOURCED CATERING EMPLOYEES IN DELIVERING PATIENT CARE

As shown in the Table 4.2.20, the majority of the respondents (37.9%) agreed that MoHSS staff work closely together with outsourced catering employees as a team to deliver patient care. Only 9.4% of the respondents strongly disagreed that MoHSS staff work closely together with outsourced catering employees as a team to deliver patient care. In Opuwo district, 8.4% of the respondents strongly agreed that MoHSS staff work closely together with outsourced catering employees as a team to deliver patient care; while 15.9% of the respondents strongly disagreed. In Outjo district, 12.7% of the respondents strongly agreed

that MoHSS staff work closely together with outsourced catering employees as a team to deliver patient care; while only 1.6% of the respondents strongly disagreed. In Khorixas district, 9.3% of the respondents strongly agreed that MoHSS staff work closely together with outsourced catering employees as a team to deliver patient care; while only 5.6% of the respondents strongly disagreed.

Table 4.2.20: Teamwork between MoHSS staff and outsourced catering employees in delivering patient care

		Opuwo District	Outjo District	Khorixas District	Kunene Region
We work closely together with outsourced catering employees as a team to deliver patient care	Strongly agree	9 8.4%	8 12.7%	5 9.3%	**22** **9.8%**
	Agree	42 39.3%	24 38.1%	19 35.2%	**85** **37.9%**
	Don't know	13 12.1%	10 15.9%	11 20.4%	**34** **15.2%**
	Disagree	26 24.3%	20 31.7%	16 29.6%	**62** **27.7%**
	Strongly disagree	17 15.9%	1 1.6%	3 5.6%	**21** **9.4%**
Total		**107** **100.0%**	**63** **100.0%**	**54** **100.0%**	**224** **100.0%**

DISTRICT HOSPITAL'S READINESS AND CAPABILITY IN TAKING OVER CATERING SERVICES IN THE ABSENCE OF THE CATERING OUTSOURCING PROVIDER

As shown in the Table 4.2.21, 30.5% of the respondents did not know whether their district hospital was ready and capable of delivering in-patient catering services right away if the catering outsourcing provider decides to terminate his/her services. Only 8.4% of the respondents strongly agreed that their district hospital was ready and capable of delivering in-patient catering services right away. In Opuwo district, 8.5% of the respondents strongly agreed that their district hospital was ready and capable of delivering in-patient catering services right away; while 25.5% of the respondents strongly disagreed. In Outjo district, 9.4% of the respondents strongly agreed that their district hospital was ready and capable of delivering in-patient catering services right away; while 18.8% of the respondents strongly disagreed. In Khorixas district, 7.1% of the respondents strongly agreed that their district hospital was ready and capable of delivering in-patient catering services right away; while 21.4% of the respondents strongly disagreed.

Table 4.2.21: District hospital's readiness and capability in taking over catering services in the absence of the catering outsourcing provider

		Opuwo District	Outjo District	Khorixas District	Kunene Region
If the catering outsourcing provider decides to terminate his/her services NOW, our district hospital is ready and capable of delivering in-patient catering services right away	Strongly agree	9 8.5%	6 9.4%	4 7.1%	**19** **8.4%**
	Agree	12 11.3%	12 18.8%	12 21.4%	**36** **15.9%**
	Don't know	25 23.6%	24 37.5%	20 35.7%	**69** **30.5%**
	Disagree	33 30.6%	10 15.6%	8 14.3%	**51** **22.6%**

	Strongly disagree	27 25.5%	12 18.8%	12 21.4%	**51** **22.6%**
Total		**106** **100.0%**	**64** **100.0%**	**56** **100.0%**	**226** **100.0%**

LEVEL OF COMPLIANCE OF THE IN-PATIENT CATERING OUTSOURCING PROVIDER WITH FOOD SAFETY REGULATIONS AND ENVIRONMENTAL LAWS

The level of compliance of the in-patient catering outsourcing provider with Food Safety Regulations and Environmental Laws is summarized in Table 4.2.22, Table 4.2.23, Table 4.2.24, Table 4.2.25, Table 4.2.26, Table 4.2.27, Table 4.2.28, Table 4.2.29, Table 4.2.30, Table 4.2.31, Table 4.2.32, Table 4.2.33, Table 4.2.34, Table 4.2.35, Table 4.2.36, Table 4.2.37, Table 4.2.38, Table 4.2.39, Table 4.2.40, Table 4.2.41, Table 4.2.42, Table 4.2.43, Table 4.2.44, Table 4.2.45, Table 4.2.46, Table 4.2.47, Table 4.2.48, Table 4.2.49, Table 4.2.50 and Table 4.2.51.

Table 4.2.22: Level of compliance of the in-patient catering outsourcing provider with Food Safety Regulations and Environmental Laws

	Compliance Levels					**Total (N)**
	Strongly agree (1)	**Agree (2)**	**Don't know (3)**	**Disagree (4)**	**Strongly disagree (5)**	
Availability of person in charge to supervise food operation	39	80	53	37	20	**229**
	17	35.0	23.2	16.2	8.8	
Knowledge of person in charge on prevention of food borne diseases	17	49	87	44	30	**227**
	7.4	21.6	38.4	19.4	13.2	
Understanding of employees on relationship between personal hygiene and prevention of food borne diseases	28	74	67	45	14	**228**
	12.2	32.4	29.4	19.8	6.2	
Absence of diseases transmissible through food in employees on duty	13	64	86	36	29	**228**
	5.8	28.0	37.8	15.8	12.8	
Cleanliness of employees' hands and exposed portions of their arms	23	77	68	33	27	**228**
	10.0	33.8	29.8	14.4	11.8	
Cleanliness of catering employees' fingernails	11	62	80	42	34	**229**
	4.8	27.0	35.0	18.4	14.8	
Non-use of jewellery among catering employees on duty	15	61	57	54	38	**225**
	6.6	27.0	25.4	24.0	16.8	
Wearing of clean outer clothing by catering employees on duty	34	105	45	25	16	**225**
	15.0	46.6	20.0	11.0	7.0	
Wearing of hair restraints by catering employees on duty	50	98	29	35	13	**225**
	22.2	43.6	12.8	15.6	5.8	
Use of designated areas by catering employees when eating, drinking, or using any form of tobacco	25	67	67	34	34	**227**
	11.0	29.6	29.6	15.0	15.6	
Restriction of catering employees experiencing persistent coughing, sneezing, or runny nose from working with exposed food	14	57	86	37	34	**228**
	6.2	25.0	37.8	16.2	15.0	
Prohibition of catering employees on	33	64	78	25	22	**222**

duty from handling animals or pets	14.8	28.8	35.2	11.2	10.0	
Sources of catering food that comply with law	15	81	88	15	28	**227**
	6.6	35.6	38.8	6.6	12.4	
Receiving, preparing, storing and serving food in a safe manner without contamination	32	112	43	17	25	**229**
	14.0	49.0	18.8	7.4	11.0	
Lack of food contamination by catering employees	26	92	53	28	29	**228**
	11.4	40.4	23.2	12.2	12.8	
Lack of food contamination by in-patients	23	81	48	40	36	**228**
	10.0	35.6	21.0	17.6	15.8	
Lack of food contamination by unapproved food additives	14	70	68	34	32	**218**
	6.4	32.0	31.2	15.6	14.6	
Lack of food contamination by improper use of single-use gloves	13	72	56	47	33	**221**
	5.8	32.6	25.4	21.2	15.0	
Lack of food contamination by premises and equipment	12	80	60	43	29	**224**
	5.4	35.8	26.8	19.2	13.0	
Lack of food contamination by utensils, wiping cloths, linens and napkins	20	89	59	40	20	**228**
	8.8	39.0	25.8	17.6	8.8	
Lack of food contamination by any other source	16	73	64	46	25	**224**
	7.2	32.6	28.6	20.6	11.2	
Immediate discarding of catering food that is unsafe or contaminated	22	74	57	32	39	**224**
	9.8	33.0	25.4	14.2	17.2	
Supply of safe drinking water to all in-patients	26	67	24	43	62	**222**
	11.8	30.2	10.8	19.4	28.0	
Availability of Dietitian or nutrition doctor to deliver clinical nutrition services	12	25	31	60	95	**223**
	5.4	11.2	14.0	27.0	42.6	
Condition of catering premises	28	115	27	32	22	**224**
	12.6	51.4	12.0	14.2	9.8	
Cleanliness of catering premises' floors, walls and ceilings	19	103	44	31	25	**222**
	8.6	46.4	19.8	14.0	11.2	
Regular pest control in catering premises and hospital wards	13	73	57	37	45	**225**
	5.8	32.4	25.4	16.4	20.0	
Availability and proper use of employee changing area	11	44	68	48	54	**225**
	4.8	19.6	30.2	21.4	24.0	
Reserved right of entry into catering premises	21	69	28	58	48	**224**
	9.4	30.8	12.6	25.8	21.4	
Routine inspections of catering premises and hospital wards	13	55	58	50	49	**225**
	5.8	24.4	25.8	22.2	21.8	

AVAILABILITY OF PERSON IN CHARGE OF CATERING SERVICES IN THE KITCHEN TO SUPERVISE FOOD OPERATION

As shown in the Table 4.2.23, the majority of the respondents (34.9%) agreed that the person in charge of catering services is always present in the kitchen to supervise food operation. Only 8.7% of the respondents strongly disagreed that the person in charge of catering services is always present in the kitchen to supervise food operation. In Opuwo district, 14.8% of the respondents strongly agreed that the person in charge of catering services is always present in the kitchen to supervise food operation; while 10.2% of the respondents strongly disagreed. In Outjo district, 26.2% of the respondents strongly agreed that the person

in charge of catering services is always present in the kitchen to supervise food operation; while only 1.5% of the respondents strongly disagreed. In Khorixas district, 10.7% of the respondents strongly agreed that the person in charge of catering services is always present in the kitchen to supervise food operation; while 14.3% of the respondents strongly disagreed.

Table 4.2.23: Availability of person in charge of catering services in the kitchen to supervise food operation

		Opuwo District	Outjo District	Khorixas District	Kunene Region
Person in charge of catering services is always present in the kitchen to supervise food operation	Strongly agree	16 14.8%	17 26.2%	6 10.7%	**39** **17.0%**
	Agree	36 33.3%	25 38.5%	19 33.9%	**80** **34.9%**
	Don't know	29 26.8%	13 20.0%	11 19.6%	**53** **23.1%**
	Disagree	16 14.8%	9 13.8%	12 21.4%	**37** **16.1%**
	Strongly disagree	11 10.2%	1 1.5%	8 14.3%	**20** **8.7%**
Total		**108** **100.0%**	**65** **100.0%**	**56** **100.0%**	**229** **100.0%**

KNOWLEDGE OF PERSON IN CHARGE OF CATERING SERVICES ON THE PREVENTION OF FOOD BORNE DISEASES

As shown in the Table 4.2.24, 38.3% of the respondents did not know whether the person in charge demonstrates excellent knowledge on food borne diseases prevention. Only 7.5% of the respondents strongly agreed that the person in charge demonstrates excellent knowledge on food borne diseases prevention. In Opuwo district, 5.6% of the respondents strongly agreed that the person in charge demonstrates excellent knowledge on food borne diseases prevention; while 15.9% of the respondents strongly disagreed. In Outjo district, 10.8% of the respondents strongly agreed that the person in charge demonstrates excellent knowledge on food borne diseases prevention; while 7.7% of the respondents strongly disagreed. In Khorixas district, 7.3% of the respondents strongly agreed that the person in charge demonstrates excellent knowledge on food borne diseases prevention; while 14.5% of the respondents strongly disagreed.

Table 4.2.24: Knowledge of person in charge of catering services on the prevention of food borne diseases

		Opuwo District	Outjo District	Khorixas District	Kunene Region
Person in charge demonstrates excellent knowledge on food borne diseases prevention	Strongly agree	6 5.6%	7 10.8%	4 7.3%	**17** **7.5%**
	Agree	24 22.4%	15 23.0%	10 18.2%	**49** **21.6%**
	Don't know	41 38.3%	29 44.6%	17 30.9%	**87** **38.3%**
	Disagree	19 17.8%	9 13.8%	16 29.1%	**44** **19.4%**
	Strongly disagree	17 15.9%	5 7.7%	8 14.5%	**30** **13.2%**
Total		**107**	**65**	**55**	**227**

	100.0%	**100.0%**	**100.0%**	**100.0%**

UNDERSTANDING OF CATERING EMPLOYEES ON THE RELATIONSHIP BETWEEN PERSONAL HYGIENE OF AN EMPLOYEE AND PREVENTION OF FOOD BORNE DISEASES

As shown in the Table 4.2.25, 32.5% of the respondents agreed that the catering employees fully understand the relationship between personal hygiene of an employee and prevention of food borne diseases. Only 6.1% strongly disagreed that the catering employees fully understand the relationship between personal hygiene of an employee and prevention of food borne diseases. In Opuwo district, 10.2% of the respondents strongly agreed that the catering employees fully understand the relationship between personal hygiene of an employee and prevention of food borne diseases; while 6.5% of the respondents strongly disagreed. In Outjo district, 16.9% of the respondents strongly agreed that the catering employees fully understand the relationship between personal hygiene of an employee and prevention of food borne diseases; while only 1.5% of the respondents strongly disagreed. In Khorixas district, 10.9% of the respondents strongly agreed that the catering employees fully understand the relationship between personal hygiene of an employee and prevention of food borne diseases; and 10.9% of the respondents strongly disagreed.

Table 4.2.25: Understanding of catering employees on the relationship between personal hygiene of an employee and prevention of food borne diseases

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
Catering employees fully understand the relationship between personal hygiene of an employee and prevention of food borne diseases	Strongly agree	11 10.2%	11 16.9%	6 10.9%	**28** **12.3%**
	Agree	34 31.5%	25 38.5%	15 27.3%	**74** **32.5%**
	Don't know	31 28.7%	21 32.3%	15 27.3%	**67** **29.4%**
	Disagree	25 23.1%	7 10.8%	13 23.6%	**45** **19.7%**
	Strongly disagree	7 6.5%	1 1.5%	6 10.9%	**14** **6.1%**
Total		**108** **100.0%**	**65** **100.0%**	**55** **100.0%**	**228** **100.0%**

ABSENCE OF DISEASES TRANSMISSIBLE THROUGH FOOD IN CATERING EMPLOYEES ON DUTY

As shown in the Table 4.2.26, majority of the respondents (37.7%) did not know whether the catering employees on duty are free from diseases that are transmissible through food in order to reduce the risk of food borne disease transmission. Only 5.7% of the respondents strongly agreed that the catering employees on duty are free from diseases that are transmissible through food in order to reduce the risk of food borne disease transmission. In Opuwo district, only 3.7% of the respondents strongly agreed that the catering employees on duty are free from diseases that are transmissible through food in order to reduce the risk of food borne disease transmission; while 12.1% of the respondents strongly disagreed. In Outjo district, 9.2% of the respondents strongly agreed that the catering employees on duty are free from diseases that are transmissible through food in order to reduce the risk of food borne disease transmission; while 4.6% of the respondents strongly disagreed. In Khorixas district, only 5.3% of the respondents strongly agreed that the catering employees on duty are free

from diseases that are transmissible through food in order to reduce the risk of food borne disease transmission; while 23.2% of the respondents strongly disagreed.

Table 4.2.26: Absence of diseases transmissible through food in catering employees on duty

		Opuwo District	Outjo District	Khorixas District	Kunene Region
Catering employees on duty are free from diseases that are transmissible through food in order to reduce the risk of food borne disease transmission	Strongly agree	4 3.7%	6 9.2%	3 5.3%	**13** **5.7%**
	Agree	29 27.1%	24 36.9%	11 19.6%	**64** **28.0%**
	Don't know	43 40.2%	26 40.0%	17 30.3%	**86** **37.7%**
	Disagree	18 16.8%	6 9.2%	12 21.4%	**36** **15.8%**
	Strongly disagree	13 12.1%	3 4.6%	13 23.2%	**29** **12.7%**
Total		**107** **100.0%**	**65** **100.0%**	**56** **100.0%**	**228** **100.0%**

CLEANLINESS OF THE CATERING EMPLOYEES' HANDS AND EXPOSED PORTIONS OF THEIR ARMS

As shown in the Table 4.2.27, the majority of the respondents (33.8%) agreed that the catering employees always keep their hands and exposed portions of their arms clean by washing hands using approved hand antiseptic. Only 10.1% strongly agreed that the catering employees always keep their hands and exposed portions of their arms clean by washing hands using approved hand antiseptic. In Opuwo district, 7.5% of the respondents strongly agreed that the catering employees always keep their hands and exposed portions of their arms clean by washing hands using approved hand antiseptic; while 14.0% of the respondents strongly disagreed. In Outjo district, 12.3% of the respondents strongly agreed that the catering employees always keep their hands and exposed portions of their arms clean by washing hands using approved hand antiseptic; while 6.2% of the respondents strongly disagreed. In Khorixas district, 12.5% of the respondents strongly agreed that the catering employees always keep their hands and exposed portions of their arms clean by washing hands using approved hand antiseptic; while 14.3% of the respondents strongly disagreed.

Table 4.2.27: Cleanliness of the catering employees' hands and exposed portions of their arms

		Opuwo District	Outjo District	Khorixas District	Kunene Region
Catering employees always keep their hands and exposed portions of their arms clean by washing hands using approved hand antiseptic	Strongly agree	8 7.5%	8 12.3%	7 12.5%	**23** **10.1%**
	Agree	34 31.8%	24 36.9%	19 33.9%	**77** **33.8%**
	Don't know	36 33.6%	22 33.8%	10 17.9%	**68** **29.8%**
	Disagree	14 13.1%	7 10.8%	12 21.4%	**33** **14.5%**
	Strongly disagree	15 14.0%	4 6.2%	8 14.3%	**27** **11.8%**
Total		**107**	**65**	**56**	**228**

	100.0%	**100.0%**	**100.0%**	**100.0%**

CLEANLINESS OF CATERING EMPLOYEES' FINGERNAILS WHEN WORKING WITH EXPOSED FOOD

As shown in the Table 4.2.28, the majority of the respondents (34.9%) did not know whether the catering employees' fingernails are always kept clean and trimmed, without fingernail polish or artificial fingernails when working with exposed food. Only 4.8% of the respondents strongly agreed that catering employees' fingernails are always kept clean and trimmed, without fingernail polish or artificial fingernails when working with exposed food. In Opuwo district, only 0.9% of the respondents strongly agreed that catering employees' fingernails are always kept clean and trimmed, without fingernail polish or artificial fingernails when working with exposed food; while 18.5% of the respondents strongly disagreed. In Outjo district, 12.3% of the respondents strongly agreed that catering employees' fingernails are always kept clean and trimmed, without fingernail polish or artificial fingernails when working with exposed food; while only 7.7% of the respondents strongly disagreed. In Khorixas district, only 3.6% of the respondents strongly agreed that catering employees' fingernails are always kept clean and trimmed, without fingernail polish or artificial fingernails when working with exposed food; while 16.0% of the respondents strongly disagreed.

Table 4.2.28: Cleanliness of catering employees' fingernails when working with exposed food

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
Catering employees' fingernails are always kept clean and trimmed, without fingernail polish or artificial fingernails when working with exposed food	Strongly agree	1 0.9%	8 12.3%	2 3.6%	**11** **4.8%**
	Agree	26 24.0%	21 32.3%	15 26.8%	**62** **27.0%**
	Don't know	42 38.9%	22 33.8%	16 28.6%	**80** **34.9%**
	Disagree	19 17.6%	9 13.8%	14 25.0%	**42** **18.3%**
	Strongly disagree	20 18.5%	5 7.7%	9 16.0%	**34** **14.8%**
Total		**108** **100.0%**	**65** **100.0%**	**56** **100.0%**	**229** **100.0%**

NON-USE OF JEWELLERY BY CATERING EMPLOYEES ON THEIR ARMS AND HANDS

As shown in the Table 4.2.29, 27.1% of the respondents agreed that the catering employees do not wear jewellery on their arms and hands, except for the wedding band ring. Only 6.7% of the respondents strongly agreed that catering employees do not wear jewellery on their arms and hands, except for the wedding band ring. In Opuwo district, only 2.9% of the respondents strongly agreed that catering employees do not wear jewellery on their arms and hands, except for the wedding band ring; while 20.2% of the respondents strongly disagreed. In Outjo district, 10.7% of the respondents strongly agreed that catering employees do not wear jewellery on their arms and hands, except for the wedding band ring; while only 7.7% of the respondents strongly disagreed. In Khorixas district, 8.9% of the respondents strongly agreed that catering employees do not wear jewellery on their arms and hands, except for the wedding band ring; while 21.4% of the respondents strongly disagreed.

Table 4.2.29: Non-use of jewellery by catering employees on their arms and hands

		Opuwo District	Outjo District	Khorixas District	Kunene Region
Catering employees do not wear jewellery on their arms and hands, except for the wedding band ring	Strongly agree	3 2.9%	7 10.7%	5 8.9%	**15** **6.7%**
	Agree	25 24.0%	22 33.8%	14 25.0%	**61** **27.1%**
	Don't know	30 28.8%	17 26.1%	10 17.9%	**57** **25.3%**
	Disagree	25 24.0%	14 21.5%	15 26.8%	**54** **24.0%**
	Strongly disagree	21 20.2%	5 7.7%	12 21.4%	**38** **16.9%**
Total		**104** **100.0%**	**65** **100.0%**	**56** **100.0%**	**225** **100.0%**

WEARING OF CLEAN OUTER CLOTHING BY CATERING EMPLOYEES TO PREVENT CONTAMINATION OF FOOD, UTENSILS AND EQUIPMENT

As shown in the Table 4.2.30, the majority of the respondents (46.7%) agreed that the catering employees always wear clean outer clothing to prevent contamination of food, utensils and equipment. Only 7.1% of the respondents strongly disagreed that the catering employees always wear clean outer clothing to prevent contamination of food, utensils and equipment. In Opuwo district, 11.3% of the respondents strongly agreed that the catering employees always wear clean outer clothing to prevent contamination of food, utensils and equipment; while 8.5% of the respondents strongly disagreed. In Outjo district, 19.0% of the respondents strongly agreed that the catering employees always wear clean outer clothing to prevent contamination of food, utensils and equipment; while only 4.8% of the respondents strongly disagreed. In Khorixas district, 17.8% of the respondents strongly agreed that the catering employees always wear clean outer clothing to prevent contamination of food, utensils and equipment; while 7.1% of the respondents strongly disagreed.

Table 4.2.30: Wearing of clean outer clothing by catering employees to prevent contamination of food, utensils and equipment

		Opuwo District	Outjo District	Khorixas District	Kunene Region
Catering employees always wear clean outer clothing to prevent contamination of food, utensils and equipment	Strongly agree	12 11.3%	12 19.0%	10 17.8%	**34** **15.1%**
	Agree	49 46.2%	29 46.0%	27 48.2%	**105** **46.7%**
	Don't know	21 19.8%	15 23.8%	9 16.0%	**45** **20.0%**
	Disagree	15 14.2%	4 6.3%	6 10.7%	**25** **11.1%**
	Strongly disagree	9 8.5%	3 4.8%	4 7.1%	**16** **7.1%**
Total		**106** **100.0%**	**63** **100.0%**	**56** **100.0%**	**225** **100.0%**

WEARING OF HAIR RESTRAINTS BY CATERING EMPLOYEES ON DUTY

As shown in the Table 4.2.31, the majority of the respondents (43.6%) agreed that the catering employees on duty always wear hair restraints. Only 5.8% of the respondents strongly disagreed that catering employees on duty always wear hair restraints. In Opuwo district, 19.6% of the respondents strongly agreed that catering employees on duty always wear hair restraints; while 8.4% of the respondents strongly disagreed. In Outjo district, 31.3% of the respondents strongly agreed that catering employees on duty always wear hair restraints; while none (0.0%) of the respondents strongly disagreed. In Khorixas district, 16.7% of the respondents strongly agreed that catering employees on duty always wear hair restraints; while 7.4% of the respondents strongly disagreed.

Table 4.2.31: Wearing of hair restraints by catering employees on duty

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
Catering employees on duty always wear hair restraints	Strongly agree	21 19.6%	20 31.3%	9 16.7%	**50** **22.2%**
	Agree	41 38.3%	29 45.3%	28 51.9%	**98** **43.6%**
	Don't know	16 14.9%	7 10.9%	6 11.1%	**29** **12.9%**
	Disagree	20 18.7%	8 12.5%	7 12.9%	**35** **15.6%**
	Strongly disagree	9 8.4%	0 0.0%	4 7.4%	**13** **5.8%**
Total		**107** **100.0%**	**64** **100.0%**	**54** **100.0%**	**225** **100.0%**

USE OF DESIGNATED AREAS BY CATERING EMPLOYEES WHEN EATING, DRINKING OR USING ANY FORM OF TOBACCO TO PREVENT FOOD CONTAMINATION

As shown in the Table 4.2.32, 29.0% of the respondents agreed that the catering employees eat, drink or use any form of tobacco only in the designated areas to prevent food contamination. Only 11.0% of the respondents strongly agreed that the catering employees eat, drink or use any form of tobacco only in the designated areas to prevent food contamination. In Opuwo district, 8.4% of the respondents strongly agreed that the catering employees eat, drink or use any form of tobacco only in the designated areas to prevent food contamination; while 16.8% of the respondents strongly disagreed. In Outjo district, 12.3% of the respondents strongly agreed that the catering employees eat, drink or use any form of tobacco only in the designated areas to prevent food contamination; while 6.2% of the respondents strongly disagreed. In Khorixas district, 14.5% of the respondents strongly agreed that the catering employees eat, drink or use any form of tobacco only in the designated areas to prevent food contamination; while 21.8% of the respondents strongly disagreed.

Table 4.2.32: Use of designated areas by catering employees when eating, drinking or using any form of tobacco to prevent food contamination

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
Catering employees eat, drink or use any form of tobacco only in the designated areas to prevent	Strongly agree	9 8.4%	8 12.3%	8 14.5%	**25** **11.0%**
	Agree	23 21.5%	25 38.5%	19 34.5%	**67** **29.5%**

food contamination	Don't know	34 31.8%	20 1.5%	13 23.6%	**67** **29.5%**
	Disagree	23 21.5%	8 12.3%	3 5.5%	**34** **14.9%**
	Strongly disagree	18 16.8%	4 6.2%	12 21.8%	**34** **14.9%**
Total		**107** **100.0%**	**65** **100.0%**	**55** **100.0%**	**227** **100.0%**

RESTRICTION OF CATERING EMPLOYEES EXPERIENCING PERSISTENT COUGHING, SNEEZING, OR RUNNY NOSE FROM WORKING WITH EXPOSED FOOD

As shown in the Table 4.2.33, 37.7% of the respondents did not know that the catering employees experiencing persistent coughing, sneezing or runny nose are always restricted from working with exposed food. Only 6.1% strongly agreed that the catering employees experiencing persistent coughing, sneezing or runny nose are always restricted from working with exposed food. In Opuwo district, only 1.9% of the respondents strongly agreed that the catering employees experiencing persistent coughing, sneezing or runny nose, are always restricted from working with exposed food; while 22.4% of the respondents strongly disagreed. In Outjo district, 12.3% of the respondents strongly agreed that the catering employees experiencing persistent coughing, sneezing or runny nose, are always restricted from working with exposed food; while only 1.5% of the respondents strongly disagreed. In Khorixas district, 7.1% of the respondents strongly agreed that the catering employees experiencing persistent coughing, sneezing or runny nose, are always restricted from working with exposed food; while 16.0% of the respondents strongly disagreed.

Table 4.2.33: Restriction of catering employees experiencing persistent coughing, sneezing, or runny nose from working with exposed food

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
Catering employees experiencing persistent coughing, sneezing or runny nose are always restricted from working with exposed food	Strongly agree	2 1.9%	8 12.3%	4 7.1%	**14** **6.1%**
	Agree	21 19.6%	24 36.9%	12 21.4%	**57** **25.0%**
	Don't know	44 41.1%	25 1.5%	17 30.3%	**86** **37.7%**
	Disagree	16 14.9%	7 10.7%	14 25.0%	**37** **16.2%**
	Strongly disagree	24 22.4%	1 1.5%	9 16.0%	**34** **14.9%**
Total		**107** **100.0%**	**65** **100.0%**	**56** **100.0%**	**228** **100.0%**

PROHIBITION OF CATERING EMPLOYEES ON DUTY FROM HANDLING ANIMALS OR PETS

As shown in the Table 4.2.34, 35.1% of the respondents did not know whether the catering employees on duty are always prohibited from handling animals or pets. Only 9.9% of the respondents strongly disagreed that the catering employees on duty are always prohibited from handling animals or pets. In Opuwo district, 16.2% of the respondents strongly agreed

that the catering employees on duty are always prohibited from handling animals or pets; while 12.4% of the respondents strongly disagreed. In Outjo district, 12.5% of the respondents strongly agreed that the catering employees on duty are always prohibited from handling animals or pets; while none (0.0%) of the respondents strongly disagreed. In Khorixas district, 15.0% of the respondents strongly agreed that the catering employees on duty are always prohibited from handling animals or pets; while 16.9% of the respondents strongly disagreed.

Table 4.2.34: Prohibition of catering employees on duty from handling animals or pets

		Opuwo District	Outjo District	Khorixas District	Kunene Region
Catering employees on duty are always prohibited from handling animals or pets	Strongly agree	17 16.2%	8 12.5%	8 15.0%	**33** **14.9%**
	Agree	17 16.2%	28 43.8%	19 35.8%	**64** **28.8%**
	Don't know	42 40.0%	25 39.0%	11 20.8%	**78** **35.1%**
	Disagree	16 15.2%	3 4.7%	6 11.3%	**25** **11.3%**
	Strongly disagree	13 12.4%	0 0.0%	9 16.9%	**22** **9.9%**
Total		**105** **100.0%**	**64** **100.0%**	**53** **100.0%**	**222** **100.0%**

SOURCES OF CATERING FOOD IN THE DISTRICT HOSPITAL

As shown in the Table 4.2.35, 38.8% of the respondents did not know whether the catering food is always obtained from suppliers that comply with law. Only 6.6% of the respondents strongly agreed that the catering food is always obtained from suppliers that comply with law. In Opuwo district, 5.6% of the respondents strongly agreed that the catering food is always obtained from suppliers that comply with law; while 15.7% of the respondents strongly disagreed. In Outjo district, 7.9% of the respondents strongly agreed that the catering food is always obtained from suppliers that comply with law; while none (0.0%) of the respondents strongly disagreed. In Khorixas district, 7.1% of the respondents strongly agreed that the catering food is always obtained from suppliers that comply with law; while 19.6% of the respondents strongly disagreed.

Table 4.2.35: Sources of catering food in the district hospital

		Opuwo District	Outjo District	Khorixas District	Kunene Region
Catering food is always obtained from suppliers that comply with law	Strongly agree	6 5.6%	5 7.9%	4 7.1%	**15** **6.6%**
	Agree	33 30.6%	24 38.0%	24 42.8%	**81** **35.7%**
	Don't know	44 40.7%	31 49.2%	13 23.2%	**88** **38.8%**
	Disagree	8 7.4%	3 4.8%	4 7.1%	**15** **6.6%**
	Strongly disagree	17 15.7%	0 0.0%	11 19.6%	**28** **12.3%**
Total		**108** **100.0%**	**63** **100.0%**	**56** **100.0%**	**227** **100.0%**

RECEIVING, PREPARING, STORING, AND SERVING CATERING FOOD IN A SAFE MANNER WITHOUT CONTAMINATION

As shown in the Table 4.2.36, the majority of the respondents (48.9%) agreed that the catering food is always received, prepared, stored and served in a safe manner without contamination. Only 7.4% of the respondents disagreed that the catering food is always received, prepared, stored and served in a safe manner without contamination. In Opuwo district, 9.2% of the respondents strongly agreed that the catering food is always received, prepared, stored and served in a safe manner without contamination; while 13.9% of the respondents strongly disagreed. In Outjo district, 20.0% of the respondents strongly agreed that the catering food is always received, prepared, stored and served in a safe manner without contamination; while none (0.0%) of the respondents strongly disagreed. In Khorixas district, 16.0% of the respondents strongly agreed that the catering food is always received, prepared, stored and served in a safe manner without contamination; while 17.9% of the respondents strongly disagreed.

Table 4.2.36: Receiving, preparing, storing, and serving catering food in a safe manner without contamination

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
Catering food is always received, prepared, stored and served in a safe manner without contamination	Strongly agree	10 9.2%	13 20.0%	9 16.0%	**32** **13.9%**
	Agree	52 48.1%	36 55.4%	24 42.9%	**112** **48.9%**
	Don't know	23 21.3%	13 20.0%	7 12.5%	**43** **18.8%**
	Disagree	8 7.4%	3 4.6%	6 10.7%	**17** **7.4%**
	Strongly disagree	15 13.9%	0 0.0%	10 17.9%	**25** **10.9%**
Total		**108** **100.0%**	**65** **100.0%**	**56** **100.0%**	**229** **100.0%**

LACK OF FOOD CONTAMINATION BY EMPLOYEES

As shown in the Table 4.2.37, the majority of the respondents agreed that the catering food is always free from contamination by employees. Only 11.4% of the respondents strongly disagreed that catering food is always free from contamination by employees. In Opuwo district, 11.2% of the respondents strongly agreed that catering food is always free from contamination by employees; while 17.8% of the respondents strongly disagreed. In Outjo district, 16.9% of the respondents strongly agreed that catering food is always free from contamination by employees; while only 1.5% of the respondents strongly disagreed. In Khorixas district, 5.3% of the respondents strongly agreed that catering food is always free from contamination by employees; while 16.0% of the respondents strongly disagreed.

Table 4.2.37: Lack of food contamination by employees

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
Catering food is always free from contamination by employees	Strongly agree	12 11.2%	11 16.9%	3 5.3%	**26** **11.4%**
	Agree	40 37.4%	30 46.2%	22 39.3%	**92** **40.4%**

	Don't know	25 23.4%	17 26.2%	11 19.6%	**53** **23.2%**
	Disagree	11 10.3%	6 9.2%	11 19.6%	**28** **12.3%**
	Strongly disagree	19 17.8%	1 1.5%	9 16.0%	**29** **12.7%**
Total		**107** **100.0%**	**65** **100.0%**	**56** **100.0%**	**228** **100.0%**

LACK OF FOOD CONTAMINATION BY IN-PATIENTS

As shown in the Table 4.2.38, the majority of the respondents (35.5%) agreed that the catering food is always free from contamination by in-patients themselves. Only 10.1% of the respondents strongly agreed that the catering food is always free from contamination by in-patients themselves. In Opuwo district, 8.3% of the respondents strongly agreed that the catering food is always free from contamination by in-patients themselves; while 22.2% of the respondents strongly disagreed. In Outjo district, 16.9% of the respondents strongly agreed that the catering food is always free from contamination by in-patients themselves; while 6.1% of the respondents strongly disagreed. In Khorixas district, 5.5% of the respondents strongly agreed that the catering food is always free from contamination by in-patients themselves; while 14.5% of the respondents strongly disagreed.

Table 4.2.38: Lack of food contamination by in-patients

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
Catering food is always free from contamination by in-patients themselves	Strongly agree	9 8.3%	11 16.9%	3 5.5%	**23** **10.1%**
	Agree	30 27.8%	29 44.6%	22 40.0%	**81** **35.5%**
	Don't know	23 21.3%	17 26.2%	8 14.5%	**48** **21.0%**
	Disagree	22 20.4%	4 6.1%	14 25.5%	**40** **17.5%**
	Strongly disagree	24 22.2%	4 6.1%	8 14.5%	**36** **15.8%**
Total		**108** **100.0%**	**65** **100.0%**	**55** **100.0%**	**228** **100.0%**

LACK OF FOOD CONTAMINATION BY UNAPPROVED FOOD ADDITIVES

As shown in the Table 4.2.39, 32.1% of the respondents agreed that the catering food is always free from contamination from unapproved food additives. Only 6.4% of the respondents strongly agreed that the catering food is always free from contamination from unapproved food additives. In Opuwo district, 6.7% of the respondents strongly agreed that the catering food is always free from contamination from unapproved food additives; while 17.3% of the respondents strongly disagreed. In Outjo district, 6.8% of the respondents strongly agreed that the catering food is always free from contamination from unapproved food additives; while only 1.7% of the respondents strongly disagreed. In Khorixas district, 5.5% of the respondents strongly agreed that the catering food is always free from

contamination from unapproved food additives; while 23.6% of the respondents strongly disagreed.

Table 4.2.39: Lack of food contamination by unapproved food additives

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
Catering food is always free from contamination from unapproved food additives	Strongly agree	7 6.7%	4 6.8%	3 5.5%	**14** **6.4%**
	Agree	29 27.9%	24 40.7%	17 30.9%	**70** **32.1%**
	Don't know	31 29.8%	22 37.3%	15 27.3%	**68** **31.2%**
	Disagree	19 18.3%	8 13.6%	7 12.7%	**34** **15.6%**
	Strongly disagree	18 17.3%	1 1.7%	13 23.6%	**32** **14.7%**
Total		**104** **100.0%**	**59** **100.0%**	**55** **100.0%**	**218** **100.0%**

LACK OF FOOD CONTAMINATION BY IMPROPER USE OF SINGLE-USE GLOVES

As shown in the Table 4.2.40, the majority of the respondents (32.6%) agreed that catering food is always free from contamination from improper use of single-use gloves. Only 5.9% of the respondents strongly agreed that catering food is always free from contamination from improper use of single-use gloves. In Opuwo district, 5.8% of the respondents strongly agreed that catering food is always free from contamination from improper use of single-use gloves; while 21.2% of the respondents strongly disagreed. In Outjo district, 7.9% of the respondents strongly agreed that catering food is always free from contamination from improper use of single-use gloves; while none (0.0%) of the respondents strongly disagreed. In Khorixas district, only 3.7% of the respondents strongly agreed that catering food is always free from contamination from improper use of single-use gloves; while 20.4% of the respondents strongly disagreed.

Table 4.2.40: Lack of food contamination by improper use of single-use gloves

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
Catering food is always free from contamination from improper use of single-use gloves	Strongly agree	6 5.8%	5 7.9%	2 3.7%	**13** **5.9%**
	Agree	28 25.9%	28 44.4%	16 29.6%	**72** **32.6%**
	Don't know	25 24.0%	21 33.3%	10 18.5%	**56** **25.3%**
	Disagree	23 22.1%	9 14.3%	15 27.8%	**47** **21.3%**
	Strongly disagree	22 21.2%	0 0.0%	11 20.4%	**33** **14.9%**
Total		**104** **100.0%**	**63** **100.0%**	**54** **100.0%**	**221** **100.0%**

LACK OF FOOD CONTAMINATION BY THE PREMISES AND EQUIPMENT

As shown in the Table 4.2.41, the majority of the respondents (35.7%) agreed that catering food is always free from contamination from the premises and equipment, including freezers, tables, weighing scales, and sinks. In Opuwo district, 5.7% of the respondents strongly agreed that catering food is always free from contamination from the premises and equipment, including freezers, tables, weighing scales, and sinks; while 17.1% of the respondents strongly disagreed. In Outjo district, 9.5% of the respondents strongly agreed that catering food is always free from contamination from the premises and equipment, including freezers, tables, weighing scales, and sinks; while only 1.6% of the respondents strongly disagreed. In Khorixas district, none (0.0%) of the respondents strongly agreed that catering food is always free from contamination from the premises and equipment, including freezers, tables, weighing scales, and sinks; while 17.8% of the respondents strongly disagreed.

Table 4.2.41: Lack of food contamination by the premises and equipment

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
Catering food is always free from contamination from the premises and equipment, including freezers, tables, weighing scales, and sinks	Strongly agree	6 5.7%	6 9.5%	0 0.0%	**12** **5.4%**
	Agree	30 28.6%	29 46.0%	21 37.5%	**80** **35.7%**
	Don't know	29 27.6%	16 25.4%	15 26.8%	**60** **26.8%**
	Disagree	22 20.9%	11 17.5%	10 17.8%	**43** **19.2%**
	Strongly disagree	18 17.1%	1 1.6%	10 17.8%	**29** **12.9%**
Total		**105** **100.0%**	**63** **100.0%**	**56** **100.0%**	**224** **100.0%**

LACK OF FOOD CONTAMINATION BY UTENSILS, WIPING CLOTHS, LINENS AND NAPKINS

As shown in the Table 4.2.42, the majority of the respondents (39.0%) agreed that the catering food is always free from contamination from utensils, wiping cloths, linens and napkins. In Opuwo district, 8.3% of the respondents strongly agreed that the catering food is always free from contamination from utensils, wiping cloths, linens and napkins; while 12.0% of the respondents strongly disagreed. In Outjo district, 9.4% of the respondents strongly agreed that the catering food is always free from contamination from utensils, wiping cloths, linens and napkins; while none (0.0%) of the respondents strongly disagreed. In Khorixas district, 8.9% of the respondents strongly agreed that the catering food is always free from contamination from utensils, wiping cloths, linens and napkins; while 12.5% of the respondents strongly disagreed.

Table 4.2.42: Lack of food contamination by utensils, wiping cloths, linens and napkins

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
Catering food is always free from contamination from utensils, wiping cloths, linens and napkins	Strongly agree	9 8.3%	6 9.4%	5 8.9%	**20** **8.8%**
	Agree	35 32.4%	31 48.4%	23 41.0%	**89** **39.0%**
	Don't know	27 25.0%	17 26.6%	15 26.8%	**59** **26.9%**

	Disagree	24 22.2%	10 15.6%	6 10.7%	**40** **17.5%**
	Strongly disagree	13 12.0%	0 0.0%	7 12.5%	**20** **8.8%**
Total		**108** **100.0%**	**64** **100.0%**	**56** **100.0%**	**228** **100.0%**

LACK OF FOOD CONTAMINATION BY ANY OTHER SOURCE

As shown in the Table 4.2.43, the majority of the respondents (32.6%) agreed that the catering food is always free from contamination from any other source. Only 7.1% of the respondents strongly agreed that catering food is always free from contamination from any other source. In Opuwo district, 9.5% of the respondents strongly agreed that catering food is always free from contamination from any other source; while 13.3% of the respondents strongly disagreed. In Outjo district, 6.3% of the respondents strongly agreed that catering food is always free from contamination from any other source; while none (0.0%) of the respondents strongly disagreed.

Table 4.2.43: Lack of food contamination by any other source

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
Catering food is always free from contamination from any other source	Strongly agree	10 9.5%	4 6.3%	2 3.6%	**16** **7.1%**
	Agree	24 22.9%	27 42.2%	22 40.0%	**73** **32.6%**
	Don't know	32 30.5%	21 32.8%	11 20.0%	**64** **28.6%**
	Disagree	25 23.8%	12 18.8%	9 16.4%	**46** **20.5%**
	Strongly disagree	14 13.3%	0 0.0%	11 20.0%	**25** **11.2%**
Total		**105** **100.0%**	**64** **100.0%**	**55** **100.0%**	**224** **100.0%**

IMMEDIATE DISCARDING OF CATERING FOOD THAT IS UNSAFE OR CONTAMINATED

As shown in the Table 4.2.44, the majority of the respondents (33.0%) agreed that the catering food that is unsafe or contaminated is always immediately discarded. Only 9.8% of the respondents strongly agreed that catering food that is unsafe or contaminated is always immediately discarded. In Opuwo district, 12.0% of the respondents strongly agreed that catering food that is unsafe or contaminated is always immediately discarded; while 22.2% of the respondents strongly disagreed. In Outjo district, 6.3% of the respondents strongly agreed that catering food that is unsafe or contaminated is always immediately discarded; while only 3.2% of the respondents strongly disagreed. In Khorixas district, 9.4% of the respondents strongly agreed that catering food that is unsafe or contaminated is always immediately discarded; while 24.5% of the respondents strongly disagreed.

Table 4.2.44: Immediate discarding of catering food that is unsafe or contaminated

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
Catering food that is unsafe or contaminated is always	Strongly agree	13 12.0%	4 6.3%	5 9.4%	**22** **9.8%**

immediately discarded	Agree	27 25.0%	32 50.8%	15 28.3%	**74** **33.0%**
	Don't know	25 23.1%	20 31.7%	12 22.6%	**57** **25.4%**
	Disagree	19 17.6%	5 7.9%	8 15.1%	**32** **14.3%**
	Strongly disagree	24 22.2%	2 3.2%	13 24.5%	**39** **17.4%**
Total		**108** **100.0%**	**63** **100.0%**	**53** **100.0%**	**224** **100.0%**

SUPPLY OF SAFE DRINKING WATER TO ALL IN-PATIENTS

As shown in the Table 4.2.45, 30.2% of the respondents agreed that safe drinking water is always supplied to all in-patients. Only 10.8% of the respondents did not know whether safe drinking water is always supplied to all in-patients. In Opuwo district, 13.1% of the respondents strongly agreed that safe drinking water is always supplied to all in-patients; while 36.4% of the respondents strongly disagreed. In Outjo district, 10.0% of the respondents strongly agreed that safe drinking water is always supplied to all in-patients; while 16.7% of the respondents strongly disagreed. In Khorixas district, 10.9% of the respondents strongly agreed that safe drinking water is always supplied to all in-patients; while 23.6% of the respondents strongly disagreed.

Table 4.2.45: Supply of safe drinking water to all in-patients

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
Safe drinking water is always supplied to all in-patients	Strongly agree	14 13.1%	6 10.0%	6 10.9%	**26** **11.7%**
	Agree	22 20.6%	27 45.0%	18 32.7%	**67** **30.2%**
	Don't know	11 10.3%	7 11.7%	6 10.9%	**24** **10.8%**
	Disagree	21 19.6%	10 16.7%	12 21.8%	**43** **19.4%**
	Strongly disagree	39 36.4%	10 16.7%	13 23.6%	**62** **27.9%**
Total		**107** **100.0%**	**60** **100.0%**	**55** **100.0%**	**222** **100.0%**

AVAILABILITY OF DIETITION OR NUTRITION DOCTOR IN THE DISTRICT HOSPITAL TO DELIVER CLINICAL NUTRITION SERVICES

As shown in the Table 4.2.46, majority of the respondents (42.6%) strongly disagreed that the Dietician or nutrition doctor is always available at our hospital to deliver clinical nutrition services. Only 5.4% of the respondents strongly agreed that the Dietician or nutrition doctor is always available at our hospital to deliver clinical nutrition services. In Opuwo district, only 4.7% of the respondents strongly agreed that the Dietician or nutrition doctor is always available at our hospital to deliver clinical nutrition services; while 44.9% of the respondents strongly disagreed. In Outjo district, only 6.5% of the respondents strongly agreed that the Dietician or nutrition doctor is always available at our hospital to deliver clinical nutrition services; while 32.3% of the respondents strongly disagreed. In Khorixas district, only 5.6% of the respondents strongly agreed that the Dietician or nutrition doctor is always available at

our hospital to deliver clinical nutrition services; while 50.0% of the respondents strongly disagreed.

Table 4.2.46: Availability of Dietician or nutrition doctor in the district hospital to deliver clinical nutrition services

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
Dietitian or nutrition doctor is always available at our hospital to deliver clinical nutrition services	Strongly agree	5 4.7%	4 6.5%	3 5.6%	**12** **5.4%**
	Agree	8 7.5%	16 25.8%	1 1.9%	**25** **11.2%**
	Don't know	14 13.1%	13 20.9%	4 7.4%	**31** **13.9%**
	Disagree	32 29.9%	9 14.5%	19 35.2%	**60** **26.9%**
	Strongly disagree	48 44.9%	20 32.3%	27 50.0%	**95** **42.6%**
Total		**107** **100.0%**	**62** **100.0%**	**54** **100.0%**	**223** **100.0%**

CONDITION OF CATERING PREMISES IN THE DISTRICT HOSPITAL

As shown in the Table 4.2.47, the majority of the respondents (51.3%) agreed that the catering premises are always kept clean, well-ventilated, and well-maintained. Only 9.8% of the respondents strongly disagreed that catering premises are always kept clean, well-ventilated, and well-maintained. In Opuwo district, 11.3% of the respondents strongly agreed that catering premises are always kept clean, well-ventilated, and well-maintained; while 13.2% of the respondents strongly disagreed. In Outjo district, 7.9% of the respondents strongly agreed that catering premises are always kept clean, well-ventilated, and well-maintained; while only 4.8% of the respondents strongly disagreed. In Khorixas district, 20.0% of the respondents strongly agreed that catering premises are always kept clean, well-ventilated, and well-maintained; while 9.1% of the respondents strongly disagreed.

Table 4.2.47: Condition of catering premises in the district hospital

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
The catering premises are always kept clean, well-ventilated, and well-maintained	Strongly agree	12 11.3%	5 7.9%	11 20.0%	**28** **12.5%**
	Agree	49 46.2%	37 58.7%	29 52.7%	**115** **51.3%**
	Don't know	14 13.2%	10 15.9%	3 5.5%	**27** **12.1%**
	Disagree	17 16.0%	8 12.7%	7 12.7%	**32** **14.3%**
	Strongly disagree	14 13.2%	3 4.8%	5 9.1%	**22** **9.8%**
Total		**106** **100.0%**	**63** **100.0%**	**55** **100.0%**	**224** **100.0%**

CLEANLINESS OF CATERING PREMISES' FLOORS, WALLS, AND CEILINGS

As shown in the Table 4.2.48, the majority of the respondents (46.4%) agreed that the premises' floors, walls, and ceilings are always kept clean and tidy using approved disinfectants. Only 8.6% of the respondents strongly agreed that the premises' floors, walls, and ceilings are always kept clean and tidy using approved disinfectants. In Opuwo district, 4.7% of the respondents strongly agreed that the premises' floors, walls, and ceilings are always kept clean and tidy using approved disinfectants; while 14.2% of the respondents strongly disagreed. In Outjo district, 11.3% of the respondents strongly agreed that the premises' floors, walls, and ceilings are always kept clean and tidy using approved disinfectants; while 6.5% of the respondents strongly disagreed. In Khorixas district, 12.9% of the respondents strongly agreed that the premises' floors, walls, and ceilings are always kept clean and tidy using approved disinfectants; while 11.1% of the respondents strongly disagreed.

Table 4.2.48: Cleanliness of catering premises' floors, walls, and ceilings

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
The premises' floors, walls, and ceilings are always kept clean and tidy using approved disinfectants	Strongly agree	5 4.7%	7 11.3%	7 12.9%	**19** **8.6%**
	Agree	42 39.6%	33 53.2%	28 51.9%	**103** **46.4%**
	Don't know	25 23.6%	9 14.5%	10 18.5%	**44** **19.8%**
	Disagree	19 17.9%	9 14.5%	3 5.6%	**31** **13.9%**
	Strongly disagree	15 14.2%	4 6.5%	6 11.1%	**25** **11.3%**
Total		**106** **100.0%**	**62** **100.0%**	**54** **100.0%**	**222** **100.0%**

PEST CONTROL IN THE CATERING PREMISES AND HOSPITAL WARDS

As shown in the Table 4.2.49, the majority of the respondents (32.4%) agreed that pest control in the catering premises and hospital wards is regularly conducted using approved pesticides and methods. Only 5.8% of the respondents strongly agreed that pest control in the catering premises and hospital wards is regularly conducted, using approved pesticides and methods. In Opuwo district, 4.7% of the respondents strongly agreed that pest control in the catering premises and hospital wards is regularly conducted, using approved pesticides and methods; while 24.3% of the respondents strongly disagreed. In Outjo district, only 3.2% of the respondents strongly agreed that pest control in the catering premises and hospital wards is regularly conducted, using approved pesticides and methods; while 9.7% of the respondents strongly disagreed. In Khorixas district, 10.7% of the respondents strongly agreed that pest control in the catering premises and hospital wards is regularly conducted, using approved pesticides and methods; while 23.2% of the respondents strongly disagreed.

Table 4.2.49: Pest control in the catering premises and hospital wards

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
Pest control in the catering premises and hospital wards is regularly conducted using approved pesticides and methods	Strongly agree	5 4.7%	2 3.2%	6 10.7%	**13** **5.8%**
	Agree	32 29.9%	24 38.7%	17 30.4%	**73** **32.4%**
	Don't know	27	18	12	**57**

		25.2%	29.0%	21.4%	**25.3%**
	Disagree	17 15.9%	12 19.4%	8 14.3%	**37** **16.4%**
	Strongly disagree	26 24.3%	6 9.7%	13 23.2%	**45** **20.0%**
Total		**107** **100.0%**	**62** **100.0%**	**56** **100.0%**	**225** **100.0%**

AVAILABILITY AND PROPER USE OF CATERING EMPLOYEE CHANGING AREA

As shown in the Table 4.2.50, the majority of the respondents (30.2%) did not know that the catering employee changing area is always available and properly used. Only 4.9% of the respondents strongly agreed that the catering employee changing area is always available and properly used. In Opuwo district, 5.6% of the respondents strongly agreed that the catering employee changing area is always available and properly used; while 22.4% of the respondents strongly disagreed. In Outjo district, only 3.2% of the respondents strongly agreed that the catering employee changing area is always available and properly used; while 16.1% of the respondents strongly disagreed. In Khorixas district, 5.4% of the respondents strongly agreed that the catering employee changing area is always available and properly used; while 35.7% of the respondents strongly disagreed.

Table 4.2.50: Availability and proper use of catering employee changing area

		Opuwo District	**Outjo District**	**Khorixas District**	**Kunene Region**
Catering employee changing area is always available and properly used	Strongly agree	6 5.6%	2 3.2%	3 5.4%	**11** **4.9%**
	Agree	20 18.7%	15 24.2%	9 16.0%	**44** **19.6%**
	Don't know	35 32.7%	22 35.5%	11 19.6%	**68** **30.2%**
	Disagree	22 20.6%	13 20.9%	13 23.2%	**48** **21.3%**
	Strongly disagree	24 22.4%	10 16.1%	20 35.7%	**54** **24.0%**
Total		**107** **100.0%**	**62** **100.0%**	**56** **100.0%**	**225** **100.0%**

RESERVED RIGHT OF ENTRY INTO THE CATERING PREMISES

As shown in the Table 4.2.51, the majority of the respondents (30.8%) agreed that the right of entry into the catering premises is routinely reserved to the authorized staff only. Only 9.4% of the respondents strongly agreed that the right of entry into the catering premises is routinely reserved to the authorized staff only. In Opuwo district, 7.5% of the respondents strongly agreed that the right of entry into the catering premises is routinely reserved to the authorized staff only; while 22.6% of the respondents strongly disagreed. In Outjo district, 7.9% of the respondents strongly agreed that the right of entry into the catering premises is routinely reserved to the authorized staff only; while 14.3% of the respondents strongly disagreed. In Khorixas district, 14.5% of the respondents strongly agreed that the right of entry into the catering premises is routinely reserved to the authorized staff only; while 27.3% of the respondents strongly disagreed.

Table 4.2.51: Reserved right of entry into the catering premises

		Opuwo District	Outjo District	Khorixas District	Kunene Region
The right of entry into the catering premises is routinely reserved to the authorized staff only	Strongly agree	8 7.5%	5 7.9%	8 14.5%	**21** **9.4%**
	Agree	40 37.7%	19 30.2%	10 18.2%	**69** **30.8%**
	Don't know	11 10.4%	9 14.3%	8 14.5%	**28** **12.5%**
	Disagree	23 21.7%	21 33.3%	14 25.5%	**58** **25.9%**
	Strongly disagree	24 22.6%	9 14.3%	15 27.3%	**48** **21.4%**
Total		**106** **100.0%**	**63** **100.0%**	**55** **100.0%**	**224** **100.0%**

ROUTINE INSPECTIONS OF THE CATERING PREMISES AND HOSPITAL WARDS

As shown in the Table 4.2.52, 25.8% of the respondents did not know whether the routine inspections of the catering premises and hospital wards are conducted regularly. Only 5.8% of the respondents strongly agreed that routine inspections of the catering premises and hospital wards are conducted regularly. In Opuwo district, 5.6% of the respondents strongly agreed that routine inspections of the catering premises and hospital wards are conducted regularly; while 20.6% of the respondents strongly disagreed. In Outjo district, 4.8% of the respondents strongly agreed that routine inspections of the catering premises and hospital wards are conducted regularly; while 34.5% of the respondents strongly disagreed. In Khorixas district, 7.3% of the respondents strongly agreed that routine inspections of the catering premises and hospital wards are conducted regularly; while 34.5% of the respondents strongly disagreed.

Table 4.2.52: Routine inspections of the catering premises and hospital wards

		Opuwo District	Outjo District	Khorixas District	Kunene Region
Routine inspections of the catering premises and hospital wards are conducted regularly	Strongly agree	6 5.6%	3 4.8%	4 7.3%	**13** **5.8%**
	Agree	31 28.9%	15 23.8%	9 16.4%	**55** **24.4%**
	Don't know	26 24.3%	16 25.4%	16 29.0%	**58** **25.8%**
	Disagree	22 20.6%	21 33.3%	7 12.7%	**50** **22.2%**
	Strongly disagree	22 20.6%	8 12.7%	19 34.5%	**49** **21.8%**
Total		**107** **100.0%**	**63** **100.0%**	**55** **100.0%**	**225** **100.0%**

INTERPRETATION OF FINDINGS AND DISCUSSION

Cross-sectional descriptive survey was done to evaluate the perceived impact of outsourced in-patient catering services in Kunene Regional Health Directorate on patient care. The objectives of this study are to identify specific risks and benefits of in-patient catering outsourcing in Kunene Regional Health Directorate; to ascertain the end-user perceptions on

the impact of in-patient catering outsourcing on patient care; to examine the outsourcing provider's level of compliance with food safety regulations and environmental laws; and to make recommendations on how to improve the delivery of outsourced in-patient catering services in Kunene Regional Health Directorate. This research attempts specifically to answer the following research questions:

1. What are the specific risks and benefits of the in-patient catering outsourcing in Kunene Regional Health Directorate?
2. How do the end-users in district hospitals perceive the impact of outsourced in-patient catering services on patient care?
3. To what extent do the outsourcing providers comply with food safety regulations and environmental laws?
4. What recommendations can be made to improve the quality of outsourcing in-patient catering services?

Research findings are interpreted below under the subheadings perceived reasons, specific benefits and risks of in-patient catering outsourcing in the district hospital; perceived performance of the in-patient catering outsourcing provider; end-user perceptions on in-patient catering outsourcing in the district hospital; and level of compliance of the in-patient catering outsourcing provider with Food Safety Regulations and Environmental Laws.

PERCEIVED REASONS, SPECIFIC BENEFITS AND RISKS OF IN-PATIENT CATERING OUTSOURCING IN THE DISTRICT HOSPITAL

Top four reasons that led the MoHSS Headquarters in Windhoek to the decision to outsource in-patient catering services in the district hospital include to improve food and service quality (22.1%), improve focus on core activities (patient healthcare or service) (13.1%), reduce and control costs (13.1%) and improve customer satisfaction (13.0%) (Table 4.2.3, Figure 4.2.1, and Figure 4.2.2). Top four benefits or advantages of in-patient catering outsourcing in the district hospital reported by the respondents include improved quantity and quality of in-patient meals (22.6%), improved in-patient catering services (17.8%), enhanced in-patient food safety (14.6%), and improved focus on core activities (patient healthcare or service) (12.8%) (Table 4.2.4, Figure 4.2.3, and Figure 4.2.4). Four topmost risks or disadvantages of in-patient catering outsourcing in the district hospital include bad publicity (poor catering services taint MoHSS' name) (17.2%), quality problems (15.7%), loss of MoHSS' managerial control to outsourcing provider over how catering services are provided (11.3%) and financial risks (10.8%) (Table 4.2.5, Figure 4.2.5, and Figure 4.2.6).

PERCEIVED PERFORMANCE OF THE IN-PATIENT CATERING OUTSOURCING PROVIDER

Large majority of the respondents (63.3%) were of the opinion that in-patient catering outsourcing in their district hospitals was successful. (Table 4.2.6 and Figure 4.2.7). Four topmost critical success factors for in-patient catering outsourcing in the district hospital include good relationships with in-patient catering outsourcing provider (14.9%), effective communication throughout the process of outsourcing (13.2%), regular site visits to the in-patient catering services (11.5%), and strict control and supervision of in-patient catering staff by the outsourcing provider (10.7%) (Table 4.2.7 and Figure 4.2.8). Top four activities or tasks that the MoHSS is foreseen outsourcing in the next two years in addition to what is currently outsourced in the district hospital include cleaning services (21.7%), ambulance services (17.9%), laundry services (16.6%), and nursing services (14.4%) (Table 4.2.8 and Figure 4.2.9).

END-USER PERCEPTIONS ON IN-PATIENT CATERING OUTSOURCING IN THE DISTRICT HOSPITAL

The vast majority of the respondents (86.9%) reported that no end-user satisfaction survey on in-patient catering has been carried out in their district hospital within the last two years

(Table 4.2.9 and Figure 4.2.10). Majority of the respondents (42.5%) agreed that they were satisfied and happy with the current catering outsourcing provider in their district hospital (Table 4.2.11). Only a small proportion of respondents (10.2%) strongly agreed that they were satisfied and happy with their current catering outsourcing provider. 27.1% of respondents agreed that in-patients and the Public are satisfied and happy with the catering services in their district hospitals (Table 4.2.12). Only 5.3% of the respondents strongly agreed that in-patients and the Public are satisfied and happy with the catering services. The majority of the respondents (32.4%) agreed that they were satisfied and happy with the transparency and overall accountability of the outsourced catering services in their district hospital (Table 4.2.13). Only 6.3% of the respondents strongly agreed that they were satisfied and happy with the transparency and overall accountability of the outsourced catering services. 29.2% of the respondents disagreed that they were satisfied and happy with the skills and experience of their hospital staff monitoring the outsourced catering services' Contract. 28.3% of the respondents agreed that they were satisfied and happy with the skills and experience of their hospital staff monitoring the outsourced catering services' Contract (Table 4.2.14). The majority of the respondents (42.2%) are satisfied and happy with the timely delivery of outsourced catering services in their district hospitals (Table 4.2.15). Only 7.1% of the respondents disagreed that they were satisfied and happy with the timely delivery of outsourced catering services. 27.7% of the respondents agreed that the quality of outsourced in-patient catering services in their district hospitals has much improved. 27.2% of the respondents disagreed that the quality of outsourced in-patient catering services has much improved (Table 4.2.16). 30.2% of the respondents did not know whether the quality of outsourced in-patient catering services in their district hospitals has much deteriorated (Table 4.2.17). Only 7.2% of the respondents strongly agreed that the quality of outsourced in-patient catering services has much deteriorated. 27.9% of the respondents disagreed that in-patients in their district hospitals recover faster because of the quantity, quality and calories of their meals (Table 4.2.18). Only 8.1% of the respondents strongly disagreed that in-patients recover faster because of the quantity, quality and calories of their meals. 26.7% of the respondents strongly disagreed that they have seen the outsourced catering services Contract at least once in the past twelve months (Table 4.2.19). Only 5.9% of the respondents strongly agreed that they have seen the outsourced catering services Contract at least once in the past twelve months. Majority of the respondents (37.9%) agreed that MoHSS staff work closely together with outsourced catering employees as a team to deliver patient care (Table 4.2.20). Only 9.4% of the respondents strongly disagreed that MoHSS staff work closely together with outsourced catering employees as a team to deliver patient care. 30.5% of the respondents did not know whether their district hospital was ready and capable of delivering in-patient catering services right away if the catering outsourcing provider decides to terminate his/her services (Table 4.2.21). Only 8.4% of the respondents strongly agreed that their district hospital was ready and capable of delivering in-patient catering services right away.

LEVEL OF COMPLIANCE OF THE IN-PATIENT CATERING OUTSOURCING PROVIDER WITH FOOD SAFETY REGULATIONS AND ENVIRONMENTAL LAWS

Majority of the respondents (34.9%) agreed that the person in charge of catering services is always present in the kitchen to supervise food operation (Table 4.2.23). Only 8.7% of the respondents strongly disagreed that the person in charge of catering services is always present in the kitchen to supervise food operation. 38.3% of the respondents did not know whether the person in charge demonstrates excellent knowledge on food borne diseases prevention (Table 4.2.24). Only 7.5% of the respondents strongly agreed that the person in charge demonstrates excellent knowledge on food borne diseases prevention. 32.5% of the

respondents agreed that the catering employees fully understand the relationship between personal hygiene of an employee and prevention of food borne diseases (Table 4.2.25). Only 6.1% strongly disagreed that the catering employees fully understand the relationship between personal hygiene of an employee and prevention of food borne diseases. The majority of the respondents (37.7%) did not know whether the catering employees on duty are free from diseases that are transmissible through food in order to reduce the risk of food borne disease transmission (Table 4.2.26). Only 5.7% of the respondents strongly agreed that the catering employees on duty are free from diseases that are transmissible through food in order to reduce the risk of food borne disease transmission.

Majority of the respondents (33.8%) agreed that the catering employees always keep their hands and exposed portions of their arms clean by washing hands using approved hand antiseptic (Table 4.2.27). Only 10.1% strongly agreed that the catering employees always keep their hands and exposed portions of their arms clean by washing hands using approved hand antiseptic. The majority of the respondents (34.9%) did not know whether the catering employees' fingernails are always kept clean and trimmed, without fingernail polish or artificial fingernails when working with exposed food (Table 4.2.28). Only 4.8% of the respondents strongly agreed that catering employees' fingernails are always kept clean and trimmed, without fingernail polish or artificial fingernails when working with exposed food. 27.1% of the respondents agreed that the catering employees do not wear jewellery on their arms and hands, except for the wedding band ring (Table 4.2.29). Only 6.7% of the respondents strongly agreed that catering employees do not wear jewellery on their arms and hands, except for the wedding band ring. Majority of the respondents (46.7%) agreed that the catering employees always wear clean outer clothing to prevent contamination of food, utensils and equipment (Table 4.2.30). Only 7.1% of the respondents strongly disagreed that the catering employees always wear clean outer clothing to prevent contamination of food, utensils and equipment. The majority of the respondents (43.6%) agreed that the catering employees on duty always wear hair restraints (Table 4.2.31). Only 5.8% of the respondents strongly disagreed that catering employees on duty always wear hair restraints. 29.0% of the respondents agreed that the catering employees eat, drink or use any form of tobacco only in the designated areas to prevent food contamination (Table 4.2.32). Only 11.0% of the respondents strongly agreed that the catering employees eat, drink or use any form of tobacco only in the designated areas to prevent food contamination.

Thirty seven point seven percent of the respondents did not know that the catering employees experiencing persistent coughing, sneezing or runny nose are always restricted from working with exposed food (Table 4.2.33). Only 6.1% strongly agreed that the catering employees experiencing persistent coughing, sneezing or runny nose are always restricted from working with exposed food. 35.1% of the respondents did not know whether the catering employees on duty are always prohibited from handling animals or pets (Table 4.2.34). Only 9.9% of the respondents strongly disagreed that the catering employees on duty are always prohibited from handling animals or pets. 38.8% of the respondents did not know whether the catering food is always obtained from suppliers that comply with law (Table 4.2.35). Only 6.6% of the respondents strongly agreed that the catering food is always obtained from suppliers that comply with law.

Majority of the respondents (48.9%) agreed that the catering food is always received, prepared, stored and served in a safe manner without contamination (Table 4.2.36). Only 7.4% of the respondents disagreed that the catering food is always received, prepared, stored and served in a safe manner without contamination. The majority of the respondents agreed that the catering food is always free from contamination by employees (Table 4.2.37). Only 11.4% of the respondents strongly disagreed that catering food is always free from contamination by employees. The majority of the respondents (35.5%) agreed that the

catering food is always free from contamination by in-patients themselves (Table 4.2.38). Only 10.1% of the respondents strongly agreed that the catering food is always free from contamination by in-patients themselves. 32.1% of the respondents agreed that the catering food is always free from contamination from unapproved food additives (Table 4.2.39). Only 6.4% of the respondents strongly agreed that the catering food is always free from contamination from unapproved food additives. The majority of the respondents (32.6%) agreed that catering food is always free from contamination from improper use of single-use gloves (Table 4.2.40). Only 5.9% of the respondents strongly agreed that catering food is always free from contamination from improper use of single-use gloves. The majority of the respondents (35.7%) agreed that catering food is always free from contamination from the premises and equipment, including freezers, tables, weighing scales, and sinks (Table 4.2.41). The majority of the respondents (39.0%) agreed that the catering food is always free from contamination from utensils, wiping cloths, linens and napkins (Table 4.2.42). The majority of the respondents (32.6%) agreed that the catering food is always free from contamination from any other source (Table 4.2.43). Only 7.1% of the respondents strongly agreed that catering food is always free from contamination from any other source. The majority of the respondents (33.0%) agreed that the catering food that is unsafe or contaminated is always immediately discarded (Table 4.2.44). Only 9.8% of the respondents strongly agreed that catering food that is unsafe or contaminated is always immediately discarded. 30.2% of the respondents agreed that safe drinking water is always supplied to all in-patients (Table 4.2.45). Only 10.8% of the respondents did not know whether safe drinking water is always supplied to all in-patients. The majority of the respondents (42.6%) strongly disagreed that the Dietician or nutrition doctor is always available at our hospital to deliver clinical nutrition services (Table 4.2.46). Only 5.4% of the respondents strongly agreed that the Dietician or nutrition doctor is always available at our hospital to deliver clinical nutrition services.

Majority of the respondents (51.3%) agreed that the catering premises are always kept clean, well-ventilated, and well-maintained (Table 4.2.47). Only 9.8% of the respondents strongly disagreed that catering premises are always kept clean, well-ventilated, and well-maintained. The majority of the respondents (46.4%) agreed that the premises' floors, walls, and ceilings are always kept clean and tidy using approved disinfectants (Table 4.2.48). Only 8.6% of the respondents strongly agreed that the premises' floors, walls, and ceilings are always kept clean and tidy using approved disinfectants. The majority of the respondents (32.4%) agreed that pest control in the catering premises and hospital wards is regularly conducted using approved pesticides and methods (Table 4.2.49). Only 5.8% of the respondents strongly agreed that pest control in the catering premises and hospital wards is regularly conducted, using approved pesticides and methods. The majority of the respondents (30.2%) did not know that the catering employee changing area is always available and properly used (Table 4.2.50). Only 4.9% of the respondents strongly agreed that the catering employee changing area is always available and properly used. The majority of the respondents (30.8%) agreed that the right of entry into the catering premises is routinely reserved to the authorized staff only (Table 4.2.51). Only 9.4% of the respondents strongly agreed that the right of entry into the catering premises is routinely reserved to the authorized staff only. 25.8% of the respondents did not know whether the routine inspections of the catering premises and hospital wards are conducted regularly (Table 4.2.52). Only 5.8% of the respondents strongly agreed that routine inspections of the catering premises and hospital wards are conducted regularly.

DISCUSSION

According to Kubr (2002), as cited by Vintar and Stanimirovic (2011: 214), outsourcing is defined as a contractual elimination and transfer of the activity, for which the organisation decides not to perform it itself in future, to the external business entities.

The findings of this research about reasons or rationale for outsourcing in-patient catering services in the district hospital (Table 4.2.3, Figure 4.2.1, and Figure 4.2.2) are not in line with findings by Audit commission (2001: 11) who reported that there is no association between the net cost of catering and whether the service is provided externally or in house. Still, Office for Public Management (2008: 34) points out that once agreements are reached the use of the private sector can create a negative impact on the workforce, weaken the lines of accountability and, in some instances, actually reduces the value for money or quality of public services. Vintar and Stanimirovic (2011: 212) cautions that objective evaluation of outsourcing projects should be based on appropriate indicators and valuation frameworks rather than intuitive, often political criteria, used in many countries today. According to Quélin and Duhamel (2003: 654), the main outsourcing motives highlighted in the literature include:

- To reduce operational costs;
- To focus on core competencies;
- To reduce capital invested;
- To improve measurability of costs;
- To gain access to external competencies and to improve quality;
- To transform fixed costs into variable costs;
- To regain control over internal departments.

According to Siddiqi et al. (2006: 868), most countries undertook contracting to improve access, efficiency and quality of health services. Republic of Turkey Ministry of Health (2010: 16) points out that the main objective of all outsourcing practices is that outsourcing allows a health care organisation to concentrate on its core processes and its customers which results in greater efficiency and quality of services. According to University of Wisconsin System (2002: 9), reasons cited for outsourcing operational services include insufficient resources and staff, cost efficiency, and liability concerns. Reasons cited for outsourcing auxiliary services include cost efficiency, management expertise, and acquisition of new technology (University of Wisconsin System, 2002: 10). Sharma and Sharma (2009: 12) also points out that one of the most popular reasons for outsourcing is controlling costs while maintaining or improving food and service quality.

The findings of this study about benefits or advantages of in-patient catering outsourcing in the district hospital (Table 4.2.4, Figure 4.2.3, and Figure 4.2.4) are not in agreement with many studies showing that outsourcing has a great potential to create cost savings. Republic of Turkey Ministry of Health (2010: 17), for example, explains that the main reason for cost saving is that outsourcing helps health care facilities to realize economics of scale. In a study on the challenges and opportunities of implementing outsourcing in private and public hospitals in Israel, Rahimi et al. (2011) found that the potential advantages of outsourcing are: improvement in services (80.5%), customer satisfaction (72.2%), and cost reduction (69.4%). Still, University of Wisconsin System (2002: 4) confirms that outsourcing, when properly structured and monitored, can have many benefits, such as reducing costs, improving service quality, and increasing efficiency and innovation. Furthermore, Vintar and Stanimirovic (2011: 211) is of the opinion that outsourcing projects ought to reduce costs and help organisations to focus on core business processes which should consequently improve service provision and quality. Figure 4.3.1 below describes the outsourcing decision framework and demonstrates where the motivators, benefits, risks, and factors are typically found.

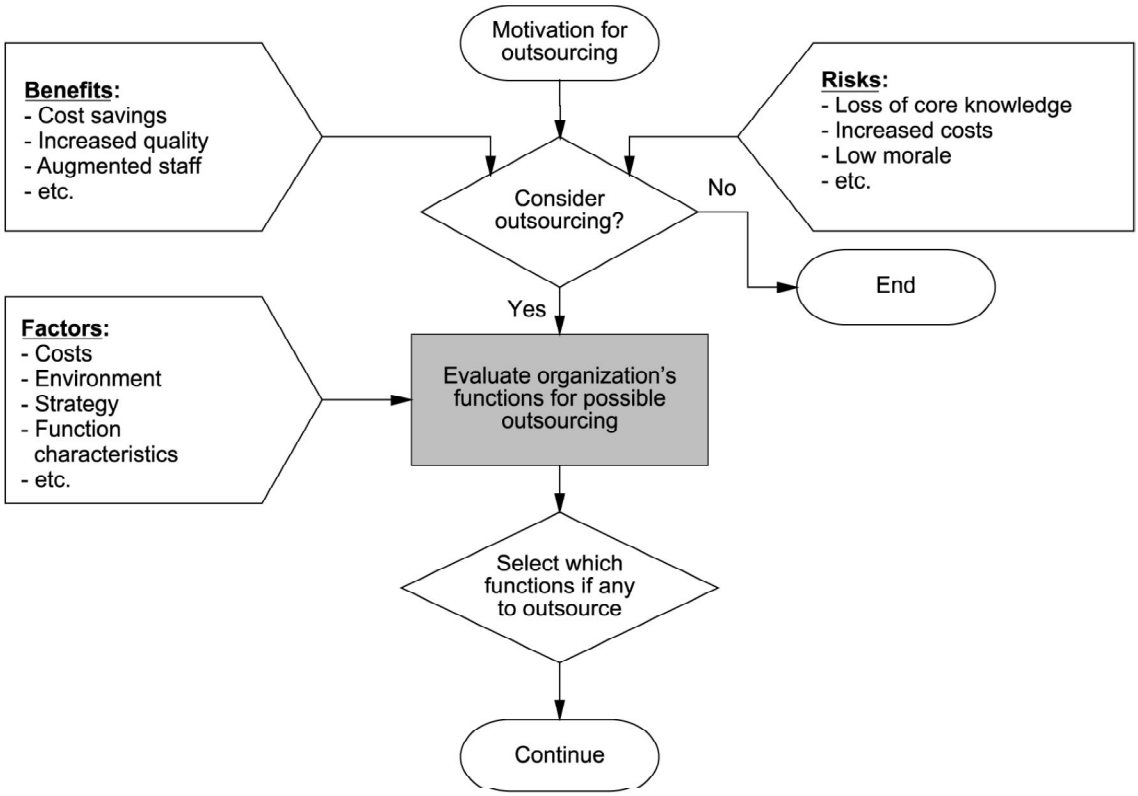


Figure 4.3.1: Outsourcing decision framework

Source: Kremic et al. (2006: 468).

The findings of this study about risks or disadvantages of in-patient catering outsourcing in the district hospital (Table 4.2.5, Figure 4.2.5, and Figure 4.2.6) are not in agreement with the results of a study on the challenges and opportunities of implementing outsourcing in private and public hospitals in Israel (Rahimi et al., 2011) whereby difficulties affecting outsourcing were found to be dependence on external resources (83.3%) and internal organisational resistance (69.4%). The findings of this research are incongruent as well with the results of the analysis by Quélin and Duhamel (2003: 656) who pointed out that the most important risks of outsourcing are the risk of dependence on the service provider and the risk linked to the service provider's deficient capabilities. In a study of outsourcing in public health in Australia, Young (2008) found that the outsourcing contract produced problems with service quality, sharing of culture, relationships between contract and internal staff, and in managing the contract and staff; and reductions in trust and morale of both internal and contract staff. According to Protiviti.APICS (2004: 2), the product or service can be outsourced, but the risk cannot. Some of the potential negative outcomes can include:

- On-time delivery performance and end customer satisfaction levels may decline because of delays at third parties;
- Product or service quality may suffer in outsourcing, affecting customer satisfaction;
- The outsourcing transition phase may also fail if schedules and budgets are not achieved because of insufficient planning and/or resources;

- Suppliers may not be financially viable, thereby exposing the company to supply interruption risk.

According to Quélin and Duhamel (2003: 657), the main outsourcing risks or negative outcomes identified in the literature include:

- Dependence on the supplier;
- Hidden costs;
- Loss of know-how;
- Service provider's lack of necessary capabilities;
- Social risk.

University of Wisconsin System (2002: 4) warns that outsourcing presents certain risks, and maintaining or improving service quality is not assured. Proper contract procedures and oversight are essential to ensure that resources are appropriately used and services are rendered satisfactorily

Overall, the findings of this study about success or efficiency of in-patient catering outsourcing in the district hospital (Table 4.2.6 and Figure 4.2.7) are in harmony with the views of advocates of competition in healthcare who argue that outsourcing hospital dietary services brings favourable outcome. Loevinsohn and Harding (2005), for example, concluded that contracting for health service delivery in developing countries was effective. Sharma and Sharma (2009: 11) reports that comparative analysis of financial expenditure for in-house dietary services which was done with outsourced dietary services in the 1500-bedded tertiary care hospital located at Chandigarh found out that the cost of meal per day for in-house dietary service was more than the outsourced service. Siddiqi et al. (2006: 872) also concluded that contracting as a purchasing tool, when applied judiciously, could contribute to the improvement of health system performance. However, the findings of this research are incompatible with the views of the opponents of competition in healthcare who argue that competition between providers undermines collaborative working and the sharing of good practice (UNISON, 2007: 4). According to Vintar and Stanimirovic (2011: 216), outsourcing undermines organisational foundations such as control over costs, human resources and future development. In Slovenia, studies on competitive tendering and contracting out, which has been growing rapidly, presents mixed results (Vintar and Stanimirovic, 2011: 214). Some studies report considerable positive effects, savings and increased efficiency; in general they outline positive impacts of outsourcing while others find no benefit or even increased costs resulting from tendering and contracting out. Roberts (2001), citing Jennings (1997), cautions that as suggested by literature, while outsourcing may seem to be a viable strategy for controlling costs and achieving a competitive advantage for general industry, it may not be a viable strategy for service industries.

The findings of this study about critical success factors for in-patient catering outsourcing in the district hospital (Table 4.2.7 and Figure 4.2.8) differ from Franceschini et al. (2003: 246) who point out that two of the most important drivers for outsourcing choices are cost efficiency and production reorganisation. In a study on the challenges and opportunities of implementing outsourcing in private and public hospitals in Israel, the factors driving outsourcing are: cost restrictions (82.8%), operational flexibility (77%), and focus on the core business (74.2%) (Rahimi et al., 2011). Koszewska (2004: 229) cautions that a firm using outsourcing inevitably loses some control over its future, which is to some degree given over into the hands of another firm, whose primary motivation (one should bear in mind) is the maximisation of its own profits. According to University of Wisconsin System (2002: 4), proper contract procedures and oversight are essential to ensure that resources are appropriately used and services are rendered satisfactorily.

The findings of this study about activities or tasks that MoHSS staff foresee outsourced in the next two years in addition to what is currently outsourced in the district hospital (Table 4.2.8

and Figure 4.2.9) are compatible with an overview of the literature on experiences of contracting health services (Mills and Broomberg, 1998: 27) which points out that in developing countries, experience has thus far been limited to selective contracting for a range of non-clinical and clinical services, and there is greater experience with selective contracting for nonclinical than for clinical services. According to Roberts (2001), citing Shinkman (2000), the most outsourced functions in healthcare are information technology (29 percent), finance (20 percent), and support services (19 percent). In a study on the challenges and opportunities of implementing outsourcing in private and public hospitals in Israel, the results revealed that 94% of the hospitals use outsourcing services in the following fields: security, cleaning, Laundry service, cafeterias, and I.T. (Rahimi et al., 2011). However, according to Republic of Turkey Ministry of Health (2010: 19), studies show that the contents of outsourced services are changing; health care facilities are expanding outsourcing beyond their noncore functions to core (clinical) functions. Small and medium-sized hospitals, especially, outsource different kinds of diagnostic services, such as imaging services, biochemistry and microbiology laboratory services, nursing services and medical services.

The findings of this study about end-user satisfaction survey on in-patient catering that has been carried out in their district hospital within the last two years (Table 4.2.9 and Figure 4.2.10) are incompatible with the principle that NHS must follow (Building Better Healthcare, 2012). Hospitals should regularly evaluate their food services and act on feedback from patients, demonstrating improvement and aiming to achieve and maintain excellence. According to Allison (2012), there should be clear channels of communication by which all staff can influence policy and contribute to improved standards of care.

The findings of this research about End-user perceptions on in-patient catering outsourcing in the district hospital (Table 4.2.11) are dissimilar with most views of the opponents of competition in health sector. Roberts (2001), citing Scheier (1997), for example, pointed out that the most common complaints about outsourcing are poor performance and lack of coordination between organisations, with a number of organisations having to restructure, terminate, or renegotiate an outsourcing contract within the last two years.

The findings of this research about satisfaction with transparency and overall accountability (Table 4.2.13) oppose the results of the research conducted in U.K. (Office for Public Management, 2008: 34) that outsourcing is seen by the scrutinisers such as patient and public involvement representatives and overview and scrutiny committee members as a challenge to the lines of accountability due to the increasing complexity of outsourcing arrangements and diversity of approaches. Using outsourcing in hospitals provides opportunities for improved customer satisfaction, better focus for the hospital on its core activities and cost reduction (Rahimi et al., 2011). According to Office for Public Management (2008: 16), the purported effects of outsourcing which may cause a negative impact on quality of service include:

- Erosion of terms and conditions
- Two-tier workforce
- Uncertainty and the challenge of management
- General erosion of the public service ethos
- Reduction of access to training
- Internationalization of the labour market.

The findings of this research about satisfaction with skills and experience of hospital staff monitoring catering services' Contract (Table 4.2.14) call for training on outsourcing of hospital staff monitoring the outsourced catering services' Contract. According to Roberts (2001), managing outsourcing requires an understanding of outsourcing strategy, the benefits and risks of outsourcing, the evaluation process, and the methods to managing strategically. According to Roberts (2001), even though outsourcing has many benefits, outsourcing will fail if not managed successfully. Senior executives must choose outsourcing managers who

have the necessary leadership capabilities. According to Serra (2013: 7), it is expected that the Food Service Contractor will utilise appropriate, qualified and trained personnel in accordance with their scope of practice. Protiviti.APICS (2004: 3), quoting James Brian Quinn, points out that "there is a shift going on in the management of outsourcing. You actually need a higher quality management in order to outsource successfully". According to Allison (2012), fundamental to the success of any catering or nutritional care policy is a programme of education and training for all staff, who should feel a sense of ownership of and responsibility for the service. Studies, cited by Weekes et al. (2009), suggest that staff training may be a necessary part of the nutritional care package; however there is no evidence that training results in improved clinical or nutritional outcomes or any cost benefits. According to Serra (2013: 7), it is expected that the Food Service Contractor will provide a documented continuing education for all staff including mandatory safety and service awareness programs.

The findings of this research about impact of hospital catering services on the recovery of in-patients (Table 4.2.18) are in agreement with Lethbridge (2012: 7) who points out that overall, there is lack of evidence to show that outsourcing leads to improved quality of patient care. According to Building Better Healthcare (2012), hospital food can often have a very significant impact on the speed of recovery, susceptibility to infection, and mental and physical wellbeing. Hospital catering is an essential part of patient care. Patients need nutritious, appetising food that they are able to eat to aid their recovery (Audit Commission, 2001: 1). Still, malnutrition is associated with poor clinical outcome, decreased quality of life and increased mortality (National Collaborating Centre for Acute Care, 2006). Weekes et al. (2009) identifies the underlying causes of inadequate intake to be multi-factorial and multi-disciplinary and may originate in any part of a healthcare organisation from the strategic policy level down to the individual feeding of a patient. To maintain the quality with efficiency of hospital services is the prime concern with resources being scarce (Sharma and Sharma, 2009: 11).

The findings of this research about access of respondents to the outsourced catering services' Contract (Table 4.2.19) are in agreement with the findings of most outsourcing studies on public involvement. According to Office for Public Management (2008: 13), the scoping paper found that the language used when discussing outsourcing is alienating people that have little or no knowledge of commissioning. This creates an obvious barrier to effective public involvement. A research participant, for example, commented in that paper that "I understand it because of the work I have done in the past but the general public certainly don't even understand the term outsourcing. It makes you think it is being provided outside the hospital." Office for Public Management (2008: 14) further points out that primary research found that patient involvement representatives feel that outsourcing decisions are made without involvement. Some points made by these research participants include: "We are not made aware of [the outsourcing agreement] by the hospital. Some of the hospitals are very anti-engagement."

The findings of this study about teamwork between MoHSS staff and outsourced catering employees in delivering patient care (Table 4.2.20) are in agreement with NHSE Hospitality (2005: 4), citing "A doctor's responsibility" Royal College of Physicians (2002), that nutritional care depends on teamwork between healthcare workers in different disciplines, the scope and contribution of whose work should be recognised.

The findings of this research about district hospital's readiness and capability in taking over catering services in the absence of the catering outsourcing provider (Table 4.2.21) prove less understanding of the respondents on MoHSS outsourcing strategy in general. Emphasis should be placed on the provision of adequate nutritional care, including the routine provision of food and drink, as an essential part of clinical care for all patients (Council of Europe,

2003). Therefore, according to Stockamp (2006), hospitals should ensure that selected outsourcing contractors can meet their objectives. Hospitals also need to have a contingency plan in place in case an outsourcing firm fails to meet expectations.

The findings of this research about improvement of quality of catering services (Table 4.2.16) are unique and different from most studies on outsourcing. While 27.7% of the respondents agreed that the quality of outsourced in-patient catering services in their district hospitals has much improved, 27.2% of the respondents disagreed that the quality of outsourced in-patient catering services has much improved. According to Kakabadse and Kakabadse (2002: 196), citing Lacity et al. (1995), recently conducted surveys report high levels of dissatisfaction with outsourcing. One study indicated that nearly 70% of companies who have undergone outsourcing are unhappy with one or more aspects of their relationships with suppliers. Still, Office for Public Management (2008: 34) argues that little hard evidence is available to suggest that outsourcing impacts positively on value for money or quality of care. Conversely there are several examples of outsourcing having a directly negative effect on the value for money and quality of care in services. However, according to Rahimi et al. (2011), the results of outsourcing are lower costs, reduced number of personnel by 1-10% and high level of satisfaction.

In conclusion, in-patient catering services call for multi-factorial approach to be successful and to impact positively on patient care. According to Weekes et al. (2009), for example, nutritional care needs include interventions such as nutrition screening, assistance with menu selection, preparation of patients for their meals (e.g. hand-washing and positioning), provision of appropriate eating utensils and condiments, location of meal consumption, provision of feeding assistance, verbal interaction or encouragement and food service.

LEVEL OF COMPLIANCE OF IN-PATIENT CATERING OUTSOURCING PROVIDER WITH FOOD SAFETY REGULATIONS AND ENVIRONMENTAL LAWS

According to Healthcare Commission (2006: 89), hospitals need to be meticulous about cleanliness, hygiene and good practice in the control of infection. U.S. Food and Drug Administration (2013) provide guidance and regulation on retail food protection; including:

- Management and personnel (supervision, employee health, personal cleanliness, and hygienic practices);
- Food (including special requirements for highly susceptible populations);
- Equipment, utensils, and linens;
- Water, plumbing, and waste;
- Physical facilities;
- Poisonous or toxic materials.

The in-patient catering outsourcing provider is responsible for food safety. According to WHO (2013b), food safety policies and actions need to cover the entire food chain, from production to consumption. WHO (2012) further outlines five keys to safer food: keep clean, separate raw and cooked, cook thoroughly, keep food at safe temperatures, and use safe water and raw materials.

The findings of this research about the availability of person in charge of catering services in the kitchen to supervise food operation (Table 4.2.23) are in agreement with the rules and guidelines established by most food safety policies. U.S. Food and Drug Administration (2013), for example, states that permit holder shall be the person in charge or shall designate a person in charge and shall ensure that a person in charge is present at the food establishment during all hours of operation. Majority of the respondents did not know whether the person in charge demonstrates excellent knowledge on food borne diseases prevention (Table 4.2.24). According to U.S. Food and Drug Administration (2013), person in charge shall demonstrate to the regulatory authority knowledge of food borne disease

prevention. According to WHO (2013a), food borne diseases remain responsible for high levels of morbidity and mortality in the general population, but particularly for at-risk groups, such as infants and young, children, the elderly and the immunocompromised. To prevent food borne diseases, proper food preparation is needed.

The findings of this research about understanding of catering employees on the relationship between personal hygiene of an employee and prevention of food borne diseases (Table 4.2.25) are in agreement with Serra (2013: 16) who argued that Infection Control Standards must be followed at all times, including employees dressing appropriately and practicing good hygiene and grooming standards in all work related activities. However, in a study on food safety in hospital in Sicily, Italy, it was reported that more than 80% of the respondent nurses did not attend any education course on food hygiene (Butchery et al., 2007). According to NHSE Hospitality (2005: 4), all healthcare staff with responsibility for serving of food and the nutritional care of patients should be appropriately trained and able to demonstrate competence in the following: food service, including meal ordering; food safety; basic nutrition; communication skills; customer care; team working; diversity and equal opportunities; and health and safety. Majority of the respondents did not know whether the catering employees on duty are free from diseases that are transmissible through food in order to reduce the risk of food borne disease transmission (Table 4.2.26). According to U.S. Food and Drug Administration (2013), a food employee or conditional employee shall report the information in a manner that allows the person in charge to reduce the risk of food borne disease transmission, including providing necessary additional information, such as the date of onset of symptoms and an illness, or of a diagnosis without symptoms.

According to Washington State University (2013), the Centres for Disease Control and Prevention estimate that in the United States alone there are 76 million cases of food borne illnesses each year, and that these result in 325,000 hospitalizations and 5,000 deaths. The single most important thing to prevent food borne illnesses is hand washing (Washington State University, 2013a). According to U.S. Food and Drug Administration (2013) food employees shall keep their hands and exposed portions of their arms clean. Food employees shall keep their fingernails trimmed, filed, and maintained so the edges and surfaces are cleanable and not rough. Except for a plain ring such as a wedding and, while preparing food, food employees may not wear jewellery including medical information jewellery on their arms and hands. Food employees shall wear clean outer clothing to prevent contamination of food, equipment, utensils, linens, and single-service and single-use articles. An employee shall eat, drink, or use any form of tobacco only in designated areas where the contamination of exposed food; clean equipment, utensils, and linens; unwrapped single-service and single-use articles; or other items needing protection cannot result. Food employees shall wear hair restraints such as hats, hair coverings or nets, beard restraints, and clothing that covers body hair, that are designed and worn to effectively keep their hair from contacting exposed food; clean equipment, utensils, and linens; and unwrapped single-service and single-use articles. Food employees may not care for or handle animals that may be present such as patrol dogs, service animals, or pets that are allowed. According to the tender document for rendering of catering services for the period 01 April 2013 to 31 March 2014 to Ministry of Health and Social Services (Ministry of Finance, 2013), all food stock stores, kitchens (including ward kitchens and special diet/fluid kitchens) as well as dining rooms should be fumigated once a month.

The findings of this research about sources of catering food in the district hospital (Table 4.2.35) generally demonstrate lack of knowledge on whether the catering food is always obtained from suppliers that comply with law. According to Serra (2013: 9), it is expected that the Food Service Contractor will provide the following services: delivery of quality, cost-

effective, Food and Nutrition Services in accordance with standards established by the hospital and in compliance with all local laws and regulations.

In conclusion, most studies on the effects of outsourcing on patient care are inconclusive. Lethbridge (2012: 7), for example, points out that overall, there is a lack of evidence to show that outsourcing leads to improved quality of patient care. Furthermore, no relationship was found between the quality of the service and cost; cost and the type of cooking method; and cost and whether service is in-house or contracted out (Audit Commission, 2001). However, Loevinsohn and Harding (2005) concluded that contracting for health service delivery in developing countries was effective. Siddiqi et al. (2006: 872) concluded that contracting as a purchasing tool, when applied judiciously, could contribute to the improvement of health system performance. Recent studies, reviewed in the report by Allison (2012), provide strong evidence that measures such as improved staff training, nutritional screening and assessment, and monitoring, combined with better catering practices, can result in most patients' nutritional requirements being met.

CONCLUSION

This chapter presented results, discussion and interpretation of findings of the cross-sectional descriptive research conducted to evaluate the perceived impact of outsourced in-patient catering services on patient care. Research findings were interpreted under the subheadings perceived reasons; specific benefits and risks of in-patient catering outsourcing in the district hospital; perceived performance of the in-patient catering outsourcing provider; end-user perceptions on in-patient catering outsourcing in the district hospital; and level of compliance of the in-patient catering outsourcing provider with Food Safety Regulations and Environmental Laws. In particular, this chapter has successfully attempted to provide answers to the following research questions: what are the specific risks and benefits of the in-patient catering outsourcing in Kunene Regional Health Directorate? How do the end-users in district hospitals perceive the impact of outsourced in-patient catering services on patient care? To what extent do the outsourcing providers comply with food safety regulations and environmental laws? What recommendations can be made to improve the quality of outsourcing in-patient catering services? The next chapter presents conclusions and recommendations.

CONCLUSIONS AND RECOMMENDATIONS

FINDINGS FROM THE LITERATURE REVIEW

Outsourcing refers to transferring services or operating functions that are traditionally performed internally to a third-party service provider and controlling the sourcing through contract and partnership management (Roberts, 2001: 1). According to Vintar and Stanimirovic (2011: 217), thorough scientific studies of the impact and importance of outsourcing are still rare.

According to literature, many reasons or rationale for outsourcing in-patient catering services exist. Siddiqi et al. (2006: 867), for example, point out that the public sector in developing countries is increasingly contracting with the non-state sector to improve access, efficiency and quality of health services. According to Republic of Turkey Ministry of Health (2010: 32), hospitals primarily initiated outsourcing projects for the purpose of cost reduction. Other reasons that play a role in hospitals considering outsourcing include:

- Increasing patient satisfaction;
- Improving quality of services provided;
- Improving organisational prestige and image;
- Alleviating personnel shortage;
- Assuring service continuity;
- Bringing new technologies into hospital;
- Reducing investment (constant) costs;
- Focusing on solely treatment services;
- Enhancing competitive power against other health care facilities;
- Providing high-tech services requiring great amount of investment at hospital;
- Minimizing service costs;
- Controlling and reducing service costs;
- Promoting hospital's growth;
- Applying new management strategies;
- Sharing financial risks with provider;
- Restructuring hospital's organisational structure (getting it simple and flat);
- Recruiting more qualified staff at hospital;
- Assuring flexibility in management;
- Protecting hospitals from corrupted political effects;
- Reducing the number of full-time staff.

Kremic et al. (2006: 467) indicated that organisations may expect to achieve many different benefits through successful outsourcing, although there are significant risks that may be realized if outsourcing is not successful. In Israel hospitals, the potential advantages of outsourcing are: improvement in services (80.5%), customer satisfaction (72.2%), and cost reduction (69.4%) (Rahimi et al., 2011). Republic of Turkey Ministry of Health (2010: 18), citing mdfsytems.com, lists benefits of outsourcing:

- Reduces overhead expenses, frees up resources;
- Minimizes capital expenditures;
- Eliminates investments in fixed infrastructure;
- Offloads non-core functions;
- Redirects energy and personnel into the core business;
- Frees the executive team from problems of daily routine processes;
- Focuses scarce resources on mission-oriented projects;
- Ensures access to specialized skills;
- Saves on manpower and training costs;

- Controls operating costs;
- Makes the economies of scale available by enhancing efficiency;
- Improves speed and service;
- Eliminates peak staffing problems;
- Provides the best quality services, products and people;
- Is reliable and innovative;
- Provides value-added services;
- Increases customer satisfaction;
- Establishing long-term, strategic relationships with world-class service providers to gain a competitive edge;
- Enhances tactical and strategic advantages;
- Enables strategic thinking, process reengineering and managing relationships with trade partners; and
- Benefits from the provider's expertise in solving problems for a variety of clients with similar requirements.

According to literature, potential risks of outsourcing include: reductions in trust and morale, problems in managing the contract and staff (Young, 2008); reduced collaboration, loss of in-house expertise, loss of continuity (University of Wisconsin System 2002: 5); and security and confidentiality problems (Essay Empire, 2012). In addition, Kremic et al. (2006: 472), citing Gordon and Walsh (1997), mentioned that other risks of outsourcing include legal obstacles, less flexibility, poor contract or poor selection of partner, and conflict of interest. Based on assumptions, international research, and their own research, Vintar and Stanimirovic (2011: 216) highlight the potential negative consequences and impacts of outsourcing in public sector organisations:

- Organisational performance;
- Reduced quality of services;
- Reduced accountability for services;
- Human resources;
- Loss of core competencies;
- 'Brain drain';
- Organisational risks;
- Loss of control over the most important organisational functions;
- Loss of control over preparation, development and realization of planned projects;
- Complete dependence on external contractor;
- Collusive tendering and other tendering problems;
- Costs;
- Loss of control over increasing costs;
- Hidden costs;
- Unexpected costs.

According to Roberts (2001), citing Shinkman (2000), the most outsourced functions in healthcare are information technology (29 percent), finance (20 percent), and support services (19 percent). In Israel, 94% of the hospitals use outsourcing services in the following fields: security, cleaning, Laundry service, cafeterias, and I.T. (Rahimi et al., 2011). Mills and Broomberg (1998: 27) points out that in developing countries, experience has thus far been limited to selective contracting for a range of non-clinical and clinical services, and there is greater experience with selective contracting for nonclinical than for clinical services. In Namibia, for example, the Ministry of Health and Social Services tends to outsource non-clinical services. Literature, however, confirms that more hospitals are outsourcing core

(clinical) functions. Examples of health facilities outsourcing core functions are found in South Africa (Mills and Broomberg, 1998: 30) and Turkey (Republic of Turkey Ministry of Health, 2010: 18).

Patient catering outsourcing providers need to collaborate with other stakeholders, including the die titian that monitors the various catering service operations on a daily basis. According to Serra (2013: 9), it is expected that the Food Service Contractor will provide the following services: delivery of quality, cost-effective, Food and Nutrition Services in accordance with standards established by the hospital and in compliance with all local laws and regulations. In-patient catering outsourcing provider is responsible for food safety. Buccheri et al. (2007) warns that food hygiene in hospital poses peculiar problems, particularly given the presence of patients who could be more vulnerable than healthy subjects to microbiological and nutritional risks. According to WHO (2013b), food safety policies and actions need to cover the entire food chain, from production to consumption. According to Healthcare Commission (2006: 89), hospitals need to be meticulous about cleanliness, hygiene and good practice in the control of infection.

In-patient catering is a vital part of patient care. According to Weekes et al. (2009), the association between malnutrition and poor clinical outcome is well-established. Recent studies, reviewed in the report by Allison (2012), provide strong evidence that measures such as improved staff training, nutritional screening and assessment, and monitoring, combined with better catering practices, can result in most patients' nutritional requirements being met. According to NHSE Hospitality (2005: 4), all healthcare staff with responsibility for serving of food and the nutritional care of patients should be appropriately trained and able to demonstrate competence in the following: food service, including meal ordering; food safety; basic nutrition; communication skills; customer care; team working; diversity and equal opportunities; and health and safety. In a study on food safety in hospital in Sicily, Italy, it was reported that more than 80% of the respondent nurses did not attend any education course on food hygiene (Buccheri et al., 2007).

According to Liu et al. (2007: 208), four dimensions of the impact of contracting-out on health system performance are: access, quality, equity and efficiency. According to literature, however, most studies on the effects of outsourcing on patient care are inconclusive. Lethbridge (2012: 7), for example, points out that overall, there is a lack of evidence to show that outsourcing leads to improved quality of patient care. Loevinsohn and Harding (2005), on the other hand, concluded that contracting for health service delivery in developing countries was effective.

FINDINGS FROM THE PRIMARY RESEARCH

The study attempts to provide answers to the following research questions: what are the specific risks and benefits of the in-patient catering outsourcing in Kunene Regional Health Directorate? How do the end-users in district hospitals of Kunene Regional Health Directorate perceive the impact of outsourced in-patient catering services on patient care? To what extent do the outsourcing providers in Kunene Regional Health Directorate comply with food safety regulations and environmental laws? What recommendations can be made to improve the quality of outsourcing in-patient catering services?

Findings from the primary research indicate that only 42.8% of the respondents understood the concept of outsourcing absolutely (Table 4.2.2). The top four reasons that led the MoHSS Headquarters in Windhoek to the decision to outsource in-patient catering services in the district hospital include to improve food and service quality (22.1%), improve focus on core activities (patient healthcare or service) (13.1%), reduce and control costs (13.1%) and improve customer satisfaction (13.0%) (Table 4.2.3, Figure 4.2.1, and Figure 4.2.2). The top four benefits or advantages of in-patient catering outsourcing in the district hospital reported by the respondents include improved quantity and quality of in-patient meals (22.6%),

improved in-patient catering services (17.8%), enhanced in-patient food safety (14.6%), and improved focus on core activities (patient healthcare or service) (12.8%) (Table 4.2.4, Figure 4.2.3, and Figure 4.2.4). The four topmost risks or disadvantages of in-patient catering outsourcing in the district hospital include bad publicity (poor catering services taint MoHSS' name) (17.2%), quality problems (15.7%), loss of MoHSS' managerial control to outsourcing provider over how catering services are provided (11.3%) and financial risks (10.8%) (Table 4.2.5, Figure 4.2.5, and Figure 4.2.6).

Large majority of the respondents (63.3%) were of the opinion that in-patient catering outsourcing in their district hospitals was successful (Table 4.2.6 and Figure 4.2.7). The four topmost critical success factors for in-patient catering outsourcing in the district hospital include good relationships with in-patient catering outsourcing provider (14.9%), effective communication throughout the process of outsourcing (13.2%), regular site visits to the in-patient catering services (11.5%), and strict control and supervision of in-patient catering staff by the outsourcing provider (10.7%) (Table 4.2.7 and Figure 4.2.8). The four topmost activities or tasks that the MoHSS is foreseen outsourcing in the next two years in addition to what is currently outsourced in the district hospital include cleaning services (21.7%), ambulance services (17.9%), laundry services (16.6%), and nursing services (14.4%) (Table 4.2.8 and Figure 4.2.9). The vast majority of the respondents (86.9%) reported that no end-user satisfaction survey on in-patient catering has been carried out in their district hospitals within the last two years (Table 4.2.9 and Figure 4.2.10).

Primary findings on the end-user perceptions on in-patient catering outsourcing in the district hospital indicated that the majority of the respondents (42.5%) agreed that they were satisfied and happy with the current catering outsourcing provider in their district hospital (Table 4.2.11). 27.1% of respondents agreed that in-patients and the Public are satisfied and happy with the catering services in their district hospitals (Table 4.2.12). The majority of the respondents (32.4%) agreed that they were satisfied and happy with the transparency and overall accountability of the outsourced catering services in their district hospital (Table 4.2.13). 29.2% of the respondents disagreed that they were satisfied and happy with the skills and experience of their hospital staff who monitor the outsourced catering services' Contract (Table 4.2.14). The majority of the respondents (42.2%) are satisfied and happy with the timely delivery of outsourced catering services in their district hospitals (Table 4.2.15). 27.7% of the respondents agreed that the quality of outsourced in-patient catering services in their district hospitals has much improved (Table 4.2.16). 30.2% of the respondents did not know whether the quality of outsourced in-patient catering services in their district hospitals has much deteriorated (Table 4.2.17). 27.9% of the respondents disagreed that in-patients in their district hospitals recover faster because of the quantity, quality and calories of their meals (Table 4.2.18). 26.7% of the respondents strongly disagreed that they have seen the outsourced catering services Contract at least once in the past twelve months (Table 4.2.19). The majority of the respondents (37.9%) agreed that MoHSS staff work closely together with outsourced catering employees as a team to deliver patient care. 30.5% of the respondents did not know whether their district hospital was ready and capable of delivering in-patient catering services right away if the catering outsourcing provider decides to terminate his/her services (Table 4.2.21).

On the level of compliance of the in-patient catering outsourcing provider with Food Safety Regulations and Environmental Laws, the study findings indicated that the majority of the respondents (34.9%) agreed that the person in charge of catering services is always present in the kitchen to supervise food operation (Table 4.2.23). 38.3% of the respondents did not know whether the person in charge demonstrates excellent knowledge on food borne diseases prevention (Table 4.2.24). 32.5% of the respondents agreed that the catering employees fully understand the relationship between personal hygiene of an employee and prevention of food

borne diseases (Table 4.2.25). The majority of the respondents (37.7%) did not know whether the catering employees on duty are free from diseases that are transmissible through food in order to reduce the risk of food borne disease transmission (Table 4.2.26). The majority of the respondents (33.8%) agreed that the catering employees always keep their hands and exposed portions of their arms clean by washing hands using approved hand antiseptic (Table 4.2.27).
Majority of the respondents (34.9%) did not know whether the catering employees' fingernails are always kept clean and trimmed, without fingernail polish or artificial fingernails when working with exposed food (Table 4.2.28). 27.1% of the respondents agreed that the catering employees do not wear jewellery on their arms and hands, except for the wedding band ring (Table 4.2.29). The majority of the respondents (46.7%) agreed that the catering employees always wear clean outer clothing to prevent contamination of food, utensils and equipment (Table 4.2.30). The majority of the respondents (43.6%) agreed that the catering employees on duty always wear hair restraints (Table 4.2.31). 29.0% of the respondents agreed that the catering employees eat, drink or use any form of tobacco only in the designated areas to prevent food contamination (Table 4.2.32). 37.7% of the respondents did not know that the catering employees experiencing persistent coughing, sneezing or runny nose are always restricted from working with exposed food (Table 4.2.33). 35.1% of the respondents did not know whether the catering employees on duty are always prohibited from handling animals or pets (Table 4.2.34). 38.8% of the respondents did not know whether the catering food is always obtained from suppliers that comply with law (Table 4.2.35).
Majority of the respondents (48.9%) agreed that the catering food is always received, prepared, stored and served in a safe manner without contamination (Table 4.2.36). The majority of the respondents agreed that the catering food is always free from contamination by employees (Table 4.2.37). The majority of the respondents (35.5%) agreed that the catering food is always free from contamination by in-patients themselves (Table 4.2.38). 32.1% of the respondents agreed that the catering food is always free from contamination from unapproved food additives (Table 4.2.39). The majority of the respondents (32.6%) agreed that catering food is always free from contamination from improper use of single-use gloves (Table 4.2.40). The majority of the respondents (35.7%) agreed that catering food is always free from contamination from the premises and equipment, including freezers, tables, weighing scales, and sinks (Table 4.2.41). The majority of the respondents (39.0%) agreed that the catering food is always free from contamination from utensils, wiping cloths, linens and napkins (Table 4.2.42). The majority of the respondents (32.6%) agreed that the catering food is always free from contamination from any other source (Table 4.2.43). The majority of the respondents (33.0%) agreed that the catering food that is unsafe or contaminated is always immediately discarded (Table 4.2.44). 30.2% of the respondents agreed that safe drinking water is always supplied to all in-patients (Table 4.2.45).
Majority of the respondents (42.6%) strongly disagreed that the Dietician or nutrition doctor is always available at our hospital to deliver clinical nutrition services (Table 4.2.46). The majority of the respondents (51.3%) agreed that the catering premises are always kept clean, well-ventilated, and well-maintained (Table 4.2.47). The majority of the respondents (46.4%) agreed that the premises' floors, walls, and ceilings are always kept clean and tidy using approved disinfectants (Table 4.2.48). The majority of the respondents (32.4%) agreed that pest control in the catering premises and hospital wards is regularly conducted using approved pesticides and methods (Table 4.2.49). The majority of the respondents (30.2%) did not know that the catering employee changing area is always available and properly used (Table 4.2.50). The majority of the respondents (30.8%) agreed that the right of entry into the catering premises is routinely reserved to the authorized staff only (Table 4.2.51). 25.8% of the respondents did not know whether the routine inspections of the catering premises and hospital wards are conducted regularly (Table 4.2.52).

CONCLUSIONS

An evaluation of the perceived impact of in-patient catering outsourcing on patient care in Kunene Regional Health Directorate, Namibia, can be a successful and valuable undertaking. However, more than one outsourced activity need to be evaluated to assess the overall impact of outsourcing on patient care. The impact of in-patient catering outsourcing on patient care, which can have positive or negative consequences, is seen through provision of healthy meals to patients to meet their dietary needs, aid the speed of recovery, minimise susceptibility to infections, and promote physical and mental wellbeing. Unfortunately, this cannot be achieved through the efforts of in-patient catering outsourcing providers alone. Is it their fault? Successful in-patient catering outsourcing requires that outsourcing providers closely collaborate with all other stakeholders such as in-patients themselves and their relatives, dieticians', doctors, nurses, and Administration personnel. The findings from the literature on in-patient catering outsourcing are for the most part inconclusive. While the in-patient catering remains a vital part of patient care, the impact of in-patient catering outsourcing on patient care is largely affected by the characteristics of the contractual relationship between the Ministry of Health and Social Services and the contracted providers. Therefore, the in-patient catering outsourcing relationship needs to be optimally supervised at all times in order to positively impact on patient care.

RECOMMENDATIONS

1. To provide training to all staff members at the district hospitals on the concept of outsourcing.
2. To improve efficiency and quality of in-patient catering outsourcing in the district hospitals.
3. To conduct end-user satisfaction surveys on in-patient catering at the district hospitals on a regular basis.
4. To improve transparency and overall accountability of the outsourced catering services at the district hospitals, including the access to the outsourced catering services' Contract.
5. To improve the skills and experience of hospital staff who monitor the outsourced catering services' Contract through the provision of comprehensive training on outsourcing.
6. To ensure that district hospitals are ready and capable of delivering in-patient catering services right away if the catering outsourcing provider decides to terminate his/her services.
7. To advance the level of compliance of in-patient catering outsourcing providers with Food Safety Regulations and Environmental Laws. Efforts should be made to ensure that:
    - Person in charge of catering services demonstrates excellent knowledge on food borne diseases prevention;
    - Catering employees on duty are free from diseases that are transmissible through food in order to reduce the risk of food borne disease transmission;
    - Catering employees' fingernails are always kept clean and trimmed, without fingernail polish or artificial fingernails when working with exposed food;
    - Catering employees eat, drink or use any form of tobacco only in designated areas to prevent food contamination;
    - Catering employees experiencing persistent coughing, sneezing, or runny nose are always restricted from working with exposed food;
    - Catering employees on duty are always prohibited from handling animals or pets;
    - Catering food is always obtained from suppliers that comply with law;

- Safe drinking water is always supplied to all in-patients;
- Dietitian or nutrition doctor is available at the district hospital to deliver clinical nutritional services;
- Pest control in the catering premises and hospital wards is regularly conducted; and
- Routine inspections of the catering premises and hospital wards are conducted regularly.

AREAS FOR FURTHER RESEARCH

This research, which aims at evaluating the perceived impact of outsourced in-patient catering services in Kunene Regional Health Directorate on patient care, raises many issues for further study of outsourcing. A study of other outsourced hospital services in Kunene Regional Health Directorate will be needed in order to sufficiently evaluate the quality of care received by patients. Still, outsourcing study involving cost-benefit analysis at the district hospitals of Kunene Regional Health Directorate will be necessary in order to ascertain the real impact vs. the perceived impact of outsourcing hospital services on patient care.

To widen the scope of outsourcing appraisal, end-user satisfaction surveys on outsourced hospital services in Kunene Regional Health Directorate will in the future need to incorporate the in-patients and the Public at large. Another area identified by this research in the future involves evaluating competition in hospital services in Kunene Regional Health Directorate as perceived by the outsourcing providers and their employees. As argued by Siddiqi et al. (2006: 867), for example, the interest of the non-state sector in contracting is to secure a regular source of revenue and gain enhanced recognition and credibility.

Therefore, in addition to contributing greatly in evaluating factors associated with success or failure of in-patient catering outsourcing, the research has also assisted in identifying areas in need of further research.

CONCLUSION

This chapter presented conclusions and recommendations for the descriptive research conducted to evaluate the perceived impact of outsourced in-patient catering services on patient care. The chapter was discussed under the subheadings introduction, findings from the literature review, findings from the primary research, conclusions, recommendations, areas for further research, and conclusion. In particular, this chapter has attempted to provide a summary of the entire research process and what has been achieved.

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The entire bibliography is cited and the references used in this article are contained within the cited bibliography.

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