

**List of content:**

Participant observation of food hygiene and food safety practices in catering enterprises in Kumasi, Ghana. An attachment to CP51 study component (IWMI, KNUST and University of Copenhagen). .....2  
March – June 2006 .....2

Additional comments..... 14

Ghana Food and Drugs Board and its role in upholding food hygiene and food safety standards among catering enterprises in Kumasi, Ghana. 26th June – 28th July, 2006..... 19

Interviews with the head managers of the previously observed catering enterprises about the factors affecting the food hygiene/safety at work, Kumasi, Ghana. 31st May – 12th June, 2006 .....26

Ghana Tourist Board and its role in upholding food hygiene and food safety standards among catering enterprises in Kumasi, Ghana. 8th – 14th June, 2006..... 31

Informal interview with a lecturer who teaches catering subjects to the students in a private hospitality institute in Kumasi, Ghana 10th April, 2006 (17:00–17:30) ..... 37

Informal interviews with the cooks from the restaurants where food hygiene observations were done, Kumasi, Ghana, Interview 1, 28th March, 2006 (14:00 – 15:00) ..... 39  
Interview 2, 30<sup>th</sup> March 2006 (14:00–14:15) ..... 41

“Don Kirk” vegetable wholesale market observations and interviews with middle women ..... 43  
23<sup>rd</sup> March, 2006 (08:00–09.30)..... 43

Observations of green vegetable growing practices and informal interviews with the farmers who grow them at Karikari village farms, Kumasi, Ghana. 20th – 22nd March, 2006 ..... 45  
Interview 2 (22 March, 16:00-16:20) ..... 47  
Interview 3, without translator (22 March, 11:00–11:20) ..... 48  
Interview 4, without translator (22 March, 12:00–12:20) ..... 48

## **Participant observation of food hygiene and food safety practices in catering enterprises in Kumasi, Ghana. An attachment to CP51 study component (IWMI, KNUST and University of Copenhagen).**

### **March – June 2006**

This attachment was agreed with intention to broaden the scope of the related research components in the field of safe and hygienic food preparation/storage practiced by the higher class catering enterprises: restaurants and chop bars (traditional food sellers, also known as “informal catering establishments”). At the same time this research aims at increasing the validity and reliability of the results of the previous and current studies in that field.

**Objective:** To gain an insight into the practices of food hygiene/safety carried out on a daily basis by the kitchen/serving staff of the higher class catering enterprises in Kumasi.

**Methodology:** Qualitative research methods were used to collect the data. Considerable amount of attention was paid to gather as much background information about each of the observed units as possible (e.g. staff working hours, salaries, staff – management relations, etc.) while retaining focus on the main objective of the research\*. It was done in order to supplement the observations with the essential information and to minimize an observer’s bias.

The observer, with a practical experience in catering and public health, had spent a year living, working and traveling in Africa and therefore was familiar with many aspects of the established hospitality industry there.

While exploring the local catering traditions and food eating habits, environmental health awareness among general population and the sellers’/buyers’ purchasing power, the study focused itself on highlighting the crucial food hygiene deficiencies present in the kitchens, rather than comparing them against the highest food hygiene standards that are, for example, expected in developed countries. This was done in order to make practical and realistic recommendations for further improvements in reducing the prevalence of food-borne diseases among general population visiting the catering enterprises.

### **Methods:**

1. Six catering enterprises of different socio-economic capacity, situated in different parts of Kumasi, were randomly chosen for the observations: two “Grade 2” restaurants, one “Grade 3” restaurant, one unlicensed restaurant and two chop bars. The owners’ consent was obtained prior to the observations. Moreover, one “Grade 1” restaurant, two “Grade 2” restaurants and two chop bars were briefly observed with Kumasi Tourist Board and Kumasi Food and Drugs Board inspectors on duty.

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\*individual full reports on each of the observed units are available on request

2. Participant observation with concealed identity was considered as the most appropriate technique to get an insider’s knowledge about the food hygiene practices in the kitchens while minimizing the Hawthorne effect, i.e. reducing to the minimum the changes in a daily kitchen staff’s routine due to the presence of an observer. Therefore the purpose of the observer was to engage himself in a kitchen’s activities (e.g. cooking, serving, etc.) and to observe the activities, practices, employees, etc. of any participating enterprise. The amount of days spent to observe each of the units depended on the size and degree of the observer’s involvement in a kitchen’s activities. It ranged from six days spent in each of the restaurants, to four days spent in a smaller of the two participating chop bars. On average it took six to seven hours to complete a day of observations.

## By Viktor Poluektovas, MSc Public Health

3. A special food hygiene observation guide was developed to assist the researcher in the process of observing the work in the kitchens and in further report writing:

### Physical appearance of the observed catering establishment:

- Tidiness of the kitchen, food serving floor, storage area, toilets and staff room. Vermin control on the premises.
- Presence of the hand-wash basins, soap and towels in the kitchen and serving area.
- First impression on the personal hygiene of the cooking and serving staff (clean dress/uniforms, cut nails, done hair).
- Separation between food and money handling services.
- Washing-up area and garbage management.

### Food storage, cooking and serving practices:

- The state of the raw/cooked foodstuffs before and after the cooking (appropriate facilities for storage, temperature, expiry date and freshness, raw and cooked foods are kept separately, etc.)
- Safe cooking procedures (e.g. separation of the chopping boards, vegetables for fresh salads are washed in due way, meat/eggs are well done, etc.)
- The source of water used for customers and for cooking.

### An attitude towards the food hygiene in the observed catering establishment:

- The kitchen staff's and management's approach to the hand washing in the process of cooking and handling the food.
- The staff's and management's approach to the sick leave.
- Sources of the food hygiene training for the kitchen staff.
- An impact that KMA, Tourist Board and Food and Drugs Board inspections had on the observed enterprises regarding food hygiene.

Only a pen and a notepad were used to take the notes during the whole period of observations.

### **Definitions\*\*:**

Food hygiene – all conditions and measures necessary to ensure the safety and suitability of food at all stages of the food chain.

Food safety – assurance that food will not cause harm to the consumer when it is prepared and/or eaten according to its intended use.

### **Results:**

All of the participating catering enterprises specialized in cooking either traditional Ghanaian staple food (as all of the chop bars), e.g. “fufu”, “banku” and a variety of complementary stews for them, or so called “Continental” menu that usually offered fried/grilled chicken or fish, different types of rice, salads, pasta, etc., or both menus (as all of the restaurants). Snack-type foods like deep-fried spring rolls and oven-baked pastries were usually cooked as well. All of the businesses readily offered soft drinks (“minerals”), sachet or pipe-borne water, at times fresh yoghurt or milk shakes for their customers, while some of them also had a bar attached next to the serving area where many patrons were used to coming for an appetizer before their meal. While “Ghanaian” and “Continental” foodstuffs were customarily prepared early in the morning to be served for lunch and in the afternoon/evening, one of the restaurants had “Chinese” dishes for its cook-to-order menu.

The amount of customers served in the observed enterprises ranged from 50 to 200 per day, with this numbers nearly doubling in the weekends, when plenty of public opt to eat out, especially after attending the churches. Most of the businesses stayed open for the clientele from 9 a.m., if they served breakfast, till late evening, seven days a week and during public holidays. It was a rare

## By Viktor Poluektovas, MSc Public Health

exception when an enterprise was closed for a weekend, which usually meant that most of its clientele were public servants or employees of the big companies who had mandatory weekends by law. Otherwise, the breakfast was usually served from 9a.m. till 11a.m. with porridge, bread, fried egg, hot chocolate, tea or coffee on offer. However, the chop bars in the morning hours were busy with the willing customers to get their “fufu” or “banku”.

As a rule the “Ghanaian” kitchen was separated from the “Continental” one as they differed a lot with regard to members of staff working there, methods of cooking and place of location, even when both kitchens were under the roof of the same restaurant. The “local” kitchens invariably used charcoal or firewood in a cooking process and therefore were usually placed outdoors, while the “Continental” kitchen was always located indoors with more amenities available, e.g. gas cooker, fridges, cupboards, ventilation, etc.

Most of the cooks in the “traditional” kitchens did not have any formal catering education, if any further education beyond primary school at all, although they

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\*\*Food and Agriculture Organisation of the United Nations, WHO, Rome, 2001, *Codex Alimentarius - Food Hygiene - Basic Texts - Second Edition*, <http://www.fao.org/docrep/005/y1579/y1579e00.htm> usually possessed a sound practical experience in cooking local staple food, obtained either in families, from colleagues or owners/managers. Very often the migrant workers from the northern parts of Ghana were employed to work in these kitchens. Very few people spoke English there. The cooks and their assistants typically wore plain cloths and were always busy, hot and noisy while crammed in a small yard with many charcoal stoves, boiling pots, baking ovens, “fufu pounders” and “mountains” of different vegetables and other raw foodstuffs. Some of the observed “local” kitchens did not have external walls at all and shared the space with the neighborhood. Therefore anybody could enter the kitchen without any restrictions at any time during the day or used the kitchen yard as a shortcut to get through. Besides, small children, dogs, cats, chickens, goats, etc. roamed around freely and were part and parcel of the kitchen. Quite often that created a chaotic atmosphere where people were literally maneuvering and bumping into each other amid glowing charcoal stoves while often carrying the pots. Moreover, in the chop bars, the kitchen yard was effectively used to slaughter the animals (poultry, goats) and to prepare their meat for further cooking process nearly every day. It was also usual to see a pile of dead forest animals (so called “bush” meat) in the kitchen yard of the chopping bars, where they were later done and cooked.

On the contrary, the “Continental” or cook-to-order kitchens usually worked in a much “cooler” environment with uniformed staff and in orderly manner. At times they even joked about the chaotic “traditional” kitchen. The cooks who worked there usually had a formal catering education either from a Senior Secondary School (three years catering course) or from Polytechnics (two years course). There were however exceptions too when uneducated but skillful cooks were the leading cooks in the “continental” kitchens.

Most of the owners of the participating enterprises were simultaneously the head managers of their businesses, despite the fact that some of them did not have a formal catering education. They typically spent most of the week supervising the work of their staff in the kitchen or food serving area, often assisting them in cooking or serving the customers. One of the owners of the chop bars even personally showed her employees how to slaughter the chickens when she saw them struggling to do the job. Some of the managers occasionally preferred to stay overnight in their offices rather than go home if there was a busy day. They usually applied “stick and carrot” policy towards their employees at times showing generosity to the staff, advising them on “family” matters or turning a blind eye on some minor wrongdoings, but the managers were always well-informed on what was happening in the kitchen and had enough authority and influence to be feared and respected by the staff. Quite often, before commencing a working day, the owners led the morning prayers inside the kitchen with their staff (the Muslims also had to attend) to “ward off the devil” and “to be in a good health and prosperity”. At the same time, if a worker was guilty for doing something wrong the head managers could shout, slap or dismiss him/her without giving a prior notice and hire a new person the same day

## By Viktor Poluektovas, MSc Public Health

as the work force was abundant on the local labor market. Therefore the chain of command in the businesses was usually well established and the kitchen staff knew their responsibilities and duties well with each cook responsible for his/her part in the whole cooking process, i.e. divisional labor.

Most of the owners preferred their appointed suppliers to deliver the raw products, including fresh/frozen meat, fish and vegetables, directly to the kitchen at least three times a week, if not daily. On delivery, the freshness of the foodstuffs was usually inspected by a manager and only afterwards a balance was paid to the supplier. However some managers preferred to go to the market themselves at least three times a week as they did not trust the delivery system and believed that their staff could not bargain well in the market.

The number of staff members employed in the observed catering enterprises ranged from 12 to 36 people, mostly young women of different socio-economic and educational background, some with children. The management on average allowed its workers to have one free meal a day from the kitchen, usually from the cheaper "Ghanaian" menu and only in the late afternoon, when the customer service rush-hour was over. Therefore, the employees had to arrange something to eat for breakfast and lunch themselves. In most ventures eating while working was frowned upon and could possibly entail the disciplinary action (e.g. a warning from a manager). But that was often ignored and the cooks and kitchen assistants either brought some food with them from home or quickly cooked something impromptu on the premises, when their supervisors did not see that. On the other hand, the staff members were often observed taking some ready-cooked food from the pot and eating it when the kitchen supervisors were not around. Also it was not unusual for them to eat the leftovers from the customers' plates.

Nearly each of the observed catering enterprises was to some extent a family business, when members of the owner's extended family held the key positions in an enterprise: managers, deputy managers, money handlers, kitchen supervisors, cooks, etc. They also effectively deputized the owner in case s/he was away. Despite the advantages that system offered to the owners, this partition of employees at times brought the discontent, particularly to "non-family" members of staff, who complained that the owner treated them differently than the "family" members (e.g. the latter ones had more days off; could freely take the food or drink; did less work; etc.).

There were also other reasons prompting the employees of the participating catering enterprises to say that they worked in those ventures only temporarily and hoped "to leave soon". As a matter of fact, in most enterprises the working hours of the staff were not regulated and the management usually abused their authority by keeping the staff members on 12 hours shifts 6 - 7 days a week, and often asking them to work an extra day or to stay overnight on the premises in order to start food preparation early in the morning or to continue serving the late-running "special" event. The workers complained that their overtime was never paid, and their salaries small and fixed: on average \$30 a month for hard labor and no time for personal/family life. The migrant workers were especially vulnerable to this type of abuses when they were offered a space to live in the kitchen's premises and some money (1\$ a day) in exchange for 6 am to 11 pm work in the kitchen without days off, weekends or Public Holiday breaks. Moreover, while the observed restaurants usually provided a three days paid leave for their sick members of staff, this was not the case in the chop bars.

These issues without doubt negatively affected the kitchen and serving staff of the catering enterprises. In fact a few of them were observed drinking alcohol during and after the work. However, the same problems kept the women together and made them very protective towards each other. There were situations when the whole team of staff refused to come to work in a protest demanding better work conditions from the management.

Moreover, the enterprises' work was dodged quite often by the erratic supply of electricity and water.

### Physical appearance of the observed catering enterprises:

- **Tidiness of the kitchen, food serving floor, storage area, toilets and staff room. Vermin control on the premises.**

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All of the observed catering enterprises took a great care and effort to keep the food serving area, where the customers had their meals, in a very clean and tidy state. The area was usually swept and mopped several times a day and after the closure of the business in the late evening. The tables were regularly wiped and usually had soap and toothpicks available for the customers on them.

Only one of the observed restaurants had separate customers' toilets for males and females, which were clean at all times and had towels, soap and paper provided. The customers' toilet facilities in the other catering businesses were either badly maintained (i.e. dirty, without running water, towels or soap) or did not exist at all (especially in the chop bars).

The kitchens of only two restaurants were regularly swept and mopped in the mornings, evenings and at times during the day. Moreover these ventures practiced a weekly general clean-up sessions when the whole floor of the restaurant was made wet, scrubbed and wiped dry. Another restaurant had its kitchen cleaned only in the mornings, with the kitchen floor, tables and cooking facilities remaining dirty, muddy and with scattered pieces of vegetables and food left-overs on the floor throughout the nights. The kitchen floor of yet another restaurant was mopped only once in a week's time and remained filthy the rest of the week. This particular place had an open sewage in the washing-up area with the heaps of refuse in the corners of the kitchen and on the tables, where the flies, cockroaches and rats were "feasting" even during the day.

The kitchen yard of the chop bars had an earthy ground that was swept irregularly and nearly always covered with litter (from pieces of fire wood, vegetables and meat to children's faeces and animal droppings). Besides, the smoke from the burning firewood and slaughtered animals (placed on burning old car tires to remove the fur) usually stayed in the kitchen yard throughout the day. A wooden stump that was used to cut the meat in the chop bars and also in some restaurants was never washed and was infested with flies while small children, dogs, chickens and vultures picked the remaining bits of meat from it.

Only one of the observed restaurants had a toilet for its staff members that was clean at all times, with towels, soap and paper provided. Besides, it had a clean shower unit with running water and soap that was regularly used by the workers. In the other restaurants the employees used the customers' toilet, which usually remained dirty, without paper, towel, soap and even running water. In the chop bars the staff had a small roofless "urinal pit" near the kitchen yard, which was simultaneously used to take a bucket shower and then had to be manually drained as there was no sewage connection. At the same time, neither for the staff, nor for the customers of the chop bars it posed a "moral dilemma" to urinate "in the bush" or just behind the serving area while being observed by the outsiders or other customers. While the workers of the one of the chop bars had to find a place in order to defecate (usually on the banks of the local river or refuse dumping site), there was a toilet "box" with a flush provided (but no paper or hand washing facilities) for the workers of another chop bar, yet strictly for "defecation" only.

It was a very rare occasion in the participating catering enterprises when storage rooms, staff rooms, cupboards, shelves and fridges were cleaned or tidied up. The storage area usually remained in order when an access to it was restricted for the staff. But in majority of the ventures the storage rooms and the fridges were dump, smelly and untidy. Besides, due to irregular electric supply, the fridges/freezers at times remained non-operational for several hours or more. However, in some of the enterprises there was no storage area as such and the stock items like vegetables, charcoal, dry fish, etc. were scattered throughout the kitchen or occupied the staff room, where they were placed together with personal belongings of the staff.

Apart from the two above-mentioned restaurants where the premises were cleaned on a regular basis, there were rodents and cockroaches present in the kitchens and storage areas of the other catering enterprises. On the other hand there were flies around in all of the observed kitchens without exception and in most of the food serving areas.

- **Presence of the hand-wash basins, soap and towels in the kitchen and serving area.**

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Only one restaurant among six participating catering enterprises had a functioning hand-wash basin in the kitchen. However, apart from the erratic tap water supply, there was no soap or towel provided with it and most of the time it was used for other purposes rather than for hand washing per se. In all other businesses there were no hand-wash basins installed at all. As a matter of fact, half of the enterprises did not even have kitchen sinks, and if they did - nearly all of them were out of order and used to “store” the products. The only place in all of the observed kitchens where one could find the running water (often stored in big water containers, so called “Polytanks”) was the washing-up area. Soap and/or detergent was also there, but it was primarily used for washing-up purposes. Otherwise, there were no other options for the kitchen staff to wash their hands rather than to go to the washing-up area (sometimes separated from the kitchen) or to use the staff’s or customers’ toilets, if they were present on the premises. Also, some of the kitchens had a few buckets full of water, but, again, mainly to be used in the cooking process.

On the contrary, in all enterprises without exception, the serving staff had to provide all their customers individually with soap, clean piece of cloth/towel and a bowl of clean tap water (or two, if one was not enough) to wash their hands (local food in Ghana is traditionally eaten without using cutlery).

- **First impression on the personal hygiene of the cooking and serving staff (clean dress/uniforms, cut nails, done hair).**

In fact, all employees of the participating catering enterprises wore clean uniforms/dresses, which were changed on a daily basis and even twice a day in some places. And they also thoroughly looked after themselves, especially the serving staff: tidied up hair, clean nails, fresh odor, etc. It was not just the management who vigorously observed the “cleanness” of their staff, but it was also a matter of a personal self-esteem and, increasingly, the judgment of the peers that forced the employees to “look nice”. At times it went as far as some of the employees putting on their uniforms just before opening the restaurant for the customers in order “not to make it dirty” while cooking. Even the chop bar workers, despite a very hot, unclean and “smoky” environment in the kitchen, did their best to remain clean by taking a bucket shower at least once in the middle of the day and changing their clothes regularly (they wore plain clothes, not uniforms).

- **Separation between food and money handling services.**

Only two restaurants managed to separate completely the food handling from the money handling. In one of them the customers had to pay for their meals/drinks to a designated for this purpose member of staff. While in another one the waitresses who collected the money from the customers were not allowed to serve the food in the kitchen, and the cooks were not allowed to take the money from the customers or from the waitresses.

In the rest of the enterprises there was no partition between food and money handling. The waiting staff habitually took the money from the customers and went on serving the food on the plates themselves, while the cooks were too busy or too lazy to do this, or just not around in the kitchen. Or vice versa, the cooks served the customers and took the cash from them. Moreover, many cooks were responsible for taking the money from the waitresses in exchange for a prepared plate of food.

- **Washing-up area and garbage management.**

Most of the washing-up areas were typically found in the kitchen yard, had a roof, cemented floor and an available source of clean water nearby. The staff there was usually very effective in dealing manually with the big amounts of used cooking utensils, plates, cutlery and pots. Most of the washing-up areas used pipe-borne water, though there was an exception when a chop bar workers fetched the water from a dug well for that purpose. The “washers” usually used two large pans to do their work, one with soapy water for the “first wash” and the other one, with clean water, for “rinsing”. Therefore, it

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was not surprising to find most of these places well flooded. After the “rinsing”, plates and utensils were brought back to the serving area. As a rule the water in the “washing” pans was hardly ever changed and was used throughout the day so that a lot of plates and pieces of cutlery remained greasy and with the remains of food on them after the washing and “rinsing”.

While some of the left-overs from the kitchen were taken home by the members of staff or given to the dogs, the left-overs from the customers’ plates were usually separated and disposed by the waitresses into different containers. The containers with the liquid left-overs were taken by the staff to the nearest stream or gutter passing nearby (but away from other shops or vendors in the vicinity) and emptied straight into there. The remaining containers with the hard rubbish were usually taken away from the kitchen to the big rubbish collector (a skip looking container) or collected in the barrels and regularly taken to the nearest refuse dumping site. One of the restaurants simply dumped its daily amount of rubbish “in the bush” just 100 meters away.

At the same time only two restaurants had a contract with the KMA refuse collection services.

### Food storage, cooking and serving practices:

- **The state of the raw/cooked foodstuffs before and after the cooking (appropriate facilities for storage, temperature, expiry date and freshness, raw and cooked foods are kept separately, etc.)**

All of the participating enterprises had enough space in their fridges and freezers to store the perishable foodstuffs in appropriate conditions, i.e. cold. As a rule the fresh/frozen meat and fish that were not supposed to be cooked that day, were put straight into the separate freezer after the delivery/slaughter. The refrigerators were mainly used to store the perishable vegetables (spring onions, lettuce, peppers, etc.), ready salads and cooked food (e.g. boiled meat or the remaining food that was not sold and left for the next day to be mixed up with the freshly cooked food and put up for sale again as “fresh”). At times frozen meat/fish was also left in the fridges to defrost, although it was usually kept in the bottom of the fridge, i.e. kept separately from the ready-to-eat foodstuffs. There were also separate refrigerators designated to cool the drinking water for the customers and to store fresh yoghurt.

However the erratic power supply, failure to rotate/use the products with the minimal shelf-life time left and the remarkable “forgetfulness” of the kitchen staff to keep the doors of the fridges/freezers shut were the main reasons the perishable food, especially vegetables, fish and sometimes even meat, at best did not look fresh when removed from the fridge for further cooking process. Some of the businesses were selling expired soft drinks to the public too.

In nearly all of the observed restaurants the fried/grilled pieces of chicken and fish that were not sold, were covered with a cloth and left on the kitchen’s shelf through the night to be reheated and sold as “fresh” next day. Some of the restaurants were used to leaving the green vegetables and at times even cooked rice lying openly on the tables in the kitchen through the night and thus exposed to the vermin. None of the ventures stored the containers with mayonnaise and ketchup in the fridges. Also, a monthly stock of raw eggs was habitually stored on the shelf in the kitchen before the new batch was delivered from the market. In nearly all enterprises the traditionally woven baskets with dry/smoked fish were usually kept on the floor in the kitchen yard along with raw starchy vegetables, like tubers, plantain and corn. Moreover, from time to time the management of some of the enterprises asked their staff to scatter the smoked fish on the big ply boards in the middle of the kitchen yard in order to dry it on the sun to prevent the rot. However nobody paid attention on the children and roaming animals who stepped on the fish continuously while moving across the yard.

- **Safe cooking procedures (e.g. separation of the chopping boards, vegetables for fresh salads are washed in due way, meat/eggs are well done etc.)**



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According to the local cuisine the complementary stews for a wide range of traditional meals must be boiled for 2-3 hours before they are considered to be ready for the consumption. All of the observed catering enterprises strictly followed this practice and tried to make sure that while serving the customers all pots with the freshly cooked stews were placed on the glowing charcoal stoves or portable gas cookers to keep them simmering throughout the day under the lid until they were sold out. While the freshly cooked rice and other ready-to-eat foodstuffs were usually kept in the high temperature preserving “ice chests” or covered hot pots. However the major issues of unsafe cooking practices in the participating enterprises, including cross-contamination of food, were mostly identified in the pre-cooking and serving stages of the food preparation.

In most of the businesses the chopping boards were not designated for different types of products, but were rather used indiscriminately to do anything in the kitchen: cutting the vegetables for the salads, chopping the raw meat, doing pastries and even sitting on them. Besides, while some of them kept the chopping boards on the floor in the kitchens, the majority of the observed ventures never washed them with soap/washing up liquid/detergent.

During the observations most of the cooks and their assistants either did not use salt at all or added too little of it to water (typically a full table spoon for a half bucket of water) to wash the lettuce and other vegetables (usually all of them in the same water) for the preparation of a fresh salad. Mainly the pipe-borne water was used for this purpose. Moreover, one of the restaurants to preserve the texture of the lettuce leaves wiped them dry with a dirty cloth after the washing.

The majority of the observed enterprises habitually left the boxes with the frozen chicken thighs to defrost in the kitchen yard, on the sun. Moreover, to speed up this process, a member of the kitchen staff usually raised and hit the whole box (15 kg) against the ground to separate the stuck together thighs. After a few “hits” the pieces of raw meat usually went flying across the yard. Straight after, the same thighs were chopped with a machete to smaller pieces on a wooden stump with the meat often falling on the ground. As a matter of fact, these chicken thighs were not washed after the chopping and were put straight into the frying pan.

In a few enterprises there was observed a remarkable technique of “drying” a smoked fish that was brought from the market, in order to make it ready for further cooking. According to the cooks the fish had to be very dry before they put it into the stew. If the fish was not dry enough the cooks usually put it into the hot baking oven and observed the maggots (short white color worms) coming out of the fish and falling on the bottom tray of the oven. So, when the maggots got “roasted”, the fish was considered to be “dry” and ready to be added to the stew. In fact, some of the cooks boiled the dry or smoked fish in the stew for only 20 min before serving it to the customers, which might not be enough to kill all the harmful for the human’s health microorganisms.

Quite often some of the pans with ready food or the cooking utensils (e.g. ladles) were left on the ground or in contact with other substances and materials, thus increasing the risk of contamination and cross-contamination of food. Moreover, many businesses while serving the customers, kept the pots and pans without any lid or cover to protect the food from exposure to the elements and flies, e.g. when the staff was sweeping the rubbish and dust in the kitchen yard. Besides, the kitchen staff regularly wiped the inner sides of the pot with a dirty cloth to make it “look nicer”. As a matter of fact, the phenomenon of the “filthy hand cloth/towel” that is commonly used by the majority of the kitchen staff during the day for a whole range of tasks like wiping the hands, utensils, chopping boards, pots, tables, faces, etc. is a food cross-contamination hazard in itself, as these towels are indeed rarely washed by the staff members.

Another common food cross-contamination hazard observed in the enterprises was the process of adding fresh eggs to the fried rice or while doing fried egg sandwiches. In fact, the cooks routinely splashed the parts of an egg’s yolk/white on the other ready-to-be-served foods and their own hands.

There is another issue that occasionally happens in the enterprises: the cooks who carry on cooking the spoilt foodstuffs. This is usually done either because the cooks genuinely did not notice that the product was spoilt already (e.g. due to the power cut) or, presumably, when they fear the management’s punishment for spoiling the product. In fact the observer was served the spoilt meat stew on two occasions while staying with the participating enterprises.

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At the same time, by the law all the catering enterprises in Ghana must screen all their members of staff for communicable diseases at least twice a year in the local designated institutions. Still, very few businesses strictly followed this directive and a few employees had a health certificate, while Hepatitis A, typhoid, TB and other potentially lethal diseases, including the frequent outbreaks of cholera, are endemic in the region. The main reasons of this defiance are the high staff turnover and the cost of the screening tests.

- **The source of water used for customers and for cooking.**

All of the observed catering enterprises without exception used pipe-borne water for the cooking and for the customers' hand washing (in a bowl). At the same time nearly all businesses offered their customers for drinking pipe-borne water (usually cooled down in the fridges and sometimes charging a small fee for it) or chilled "filtered" water in sachets, the latter is considered safe to drink by the majority of the Ghanaians. One of the restaurants had a stationary water filter device that was used to filter pipe-borne water of hard particles, which was later frozen and then served to the customers free of charge to go together with a meal. At the same time in another restaurant the waitresses used their teeth to open the sachets of water in order to pour it into the jug before taking it to the customers.

### *An attitude towards the food hygiene in the catering establishment.*

- **The kitchen staff's and management's approach to the hand washing in the process of cooking and handling the food.**

It was alarming to observe how rarely the kitchen staff and even the management (including the owners) washed their hands with soap. In fact the observer did not happen to spot even one occasion when this was done before/in the process/after the cooking or serving the food, and even after visiting the urinal or toilet at any of the participating catering enterprises. Habitually all the employees and their managers rinsed the hands with tap water or in a big pan with water used for doing washing up **in order to remove any visible dirt or grease**. This situation was usually aggravated by the virtual absence of hand washing facilities on the premises, including soap, towels and even, sometimes, water per se. Moreover, the majority of the kitchen staff used the above-mentioned "filthy piece of cloth" to clean/wipe their hands dry as well as to carry a pot, to wipe the table/chopping board/face, to fend off the flies, etc. At the same time the staff was always helpful to find water and soap for the observer to wash the hands, providing it with the comments like: "Obruni (i.e. white people) always do this".

On the other hand, while the kitchen staff habitually used their fingers to taste if the food was ready (by licking them after grabbing a small amount from a pot), nearly everybody in the observed enterprises, from serving staff to the owners, traditionally shared the same plate of food with other staff/management/family members and used their fingers to eat it, at times straight after handling raw meat, mopping the floor, children's soiled underwear, etc. More worrying was the fact that, while not seen to wash their hands with soap, the cooks usually touched the food they served for the customers with the hands, sometimes grabbing it straight from the pots, e.g. salads, fried/grilled meat or fish, fufu, etc. For example, in one of the observed chop bars a member of the serving staff usually changed her babies' diapers just behind the counter in front of the customers, who she continued serving with the food minutes later.

This issue did not bother much the owners and managers of the observed ventures, as some of them also touched theirs and the customers' food with unwashed hands. The managers, who usually ate in the kitchen, also never minded or checked the cook's hands before s/he served them a dish while touching it with hands.

- **The staff's and management's approach to the sick leave.**

## By Viktor Poluektovas, MSc Public Health

As it was mentioned already, the employees of the observed restaurants did not have to come to work if they thought they were sick. In this case they had to give the management a notice, e.g. by calling them as soon as possible, and a restaurant would normally allow them to have three days of paid sick leave. This practice effectively prevented the ill workers from coming to work and spreading a potentially infectious disease. Yet, after the three days the employees were expected to return to the work and were usually left to their own devices to cope with the illness.

At the same time the restaurants' management usually applied a strict policy towards those members of staff who did not come to work due to illness, suspecting them of intentionally avoiding the work. Therefore the employees did their best not to miss even a day of work however sick they felt, while the management openly appreciated that kind of "loyalty".

As with regard to the chop bars, the ill staff there was not entitled by the management for any paid sick leave at all, which was a threat towards the food safety, as the workers, desperate to earn the money, usually forced themselves to come to work even being unwell, i.e. risk of spreading a disease.

- **Sources of the food hygiene training for the kitchen staff.**

As a matter of fact, while the cooks without any formal catering education stated that most of their knowledge about the food hygiene was obtained either in their families, from the business owners/managers or colleagues, most of the kitchen staff who had a catering diploma from a Senior Secondary School or Vocational Course also mentioned that they learned about the main principles of the food hygiene through their experience while working in different catering enterprises: from head managers, more experienced cooks and TV/radio programs. Only a few of them named their formal education as the main source of their knowledge about the food hygiene.

The kitchen workers in the observed catering enterprises never mentioned any other source of the food hygiene training that was ever available for them in their careers, e.g. Tourist Board or KMA food hygiene workshops, etc.

- **An impact that KMA, Tourist Board and Food and Drugs Board inspections had on the observed enterprises regarding food hygiene.**

According to the kitchen staff of the participating catering enterprises, the environmental health inspectors from the Ghana Tourist Board and/or KMA regularly visited them (on average once in two months) to "see how they cooked" and "if food was healthy for the customers". These regular visits usually indicated that the inspectors were "concerned" with the conditions (e.g. cooking, hygiene, maintenance) on the premises of the examined venture. While some of the businesses did not hesitate to announce that the inspectors did not have "any objections" as how the kitchen worked, the kitchen staff of the other enterprises was reluctant to discuss that issue with the observer, especially when the managers were nearby. In fact, the observer found out that the KMA and/or Tourist Board inspectors had already warned a few of the observed enterprises that they would be closed down if continue breaching the food safety and food hygiene standards. However, the same enterprises still keep on working and breaching these regulations. Moreover, some employees in one of the observed ventures had the courage to tell the researcher that the customers occasionally complained about "not good food and meat" and even about "bad stomach" after eating in their enterprise, and added that nothing "serious" was done by the management to prevent this from happening again.

### Discussion

The majority of both professionally educated and uneducated employees of the observed catering enterprises clearly named their management teams, including the owners, as a primary source of the food hygiene education and supervision. However, the owners usually had more important (in their eyes) things to worry about: a quick profit gaining with least resources and disruption involved in the process. Hence investing into the kitchen's facilities or staffs' education, especially the ones to improve the food hygiene environment (which in fact causes a disruption in work and does not bring

## By Viktor Poluektovas, MSc Public Health

imminent cash returns) is not usually done until the governmental institutions like KMA, Tourist Board or Food and Drugs Board give the last warning to them before coming with padlocks to close the business down (which rarely happens as well). There is a situation when the management is incapable to enforce even basic food hygiene ground rules on its own staff, at times because they do not have enough capacity to do so. However this should not be used as an excuse to be ignorant towards the food hygiene and food safety issues on the premises, as when there is the willingness, there will be also the means to implement at least the minimum requirements of the food hygiene, e.g. a pan with water and soap as a temporary hand wash basin for the staff; enforce the separation of the chopping boards, hand washing, regular and thorough cleaning of the site, etc.

On the other hand, the owners' power to dismiss an employee for even a minor wrongdoing, not to mention a criticism, may potentially discourage the conscious members of the staff to follow the food hygiene principles. Take for example a new kitchen staff member willing to regularly wash his/her hands with soap in the process of cooking, while the lack of motivation from the management and lack of hand washing facilities on the premises will make any attempt to do this time-consuming and discouraging, which, certainly, will be frowned upon by the owner and fellow kitchen colleagues. Thus the irresponsible attitude of the management breeds the ignorance among the staff. Besides, a lot of the staff members, including managers and some owners, in the observed enterprises did not have any formal catering education, while other employees, as well as managers and owners, had an inadequate amount of food hygiene and food safety knowledge. Usually, for instance, they did not know the microbiological aspects of food contamination and cross-contamination, while following their own "standard" – "if it does not look dirty or smells spoilt – it is not dirty and is not spoilt". In yet another example, when a catering teacher at one of the hospitality institutes was asked about the reasons the kitchen staff did not wash their hands with soap before handling the food, she said that they "did not have knowledge about bacteria and diseases" related to poor hand's hygiene.

This lack of motivation from the management team to pursue the food hygiene standards may make the staff believe that these standards are not important at all, but rather a secondary kitchen issue, something not directly related to the work they do. This fact, combined with hard work and inadequate salary, can leave the employees indifferent to the "secondary", in their opinion, objectives, and be a cause of negligence towards the food hygiene and food safety principles. For example, in one of the chop bars the kitchen staff knowingly left unnoticed a "fresh result" of the dog's bout of diarrhea in the middle of the kitchen yard, which was removed only when the observer asked them to do so, as the small children were stepping in it with their bare feet.

Although the environmental health officers from the KMA or other agencies may make the kitchen staff aware about the food safety and food hygiene issues on the premises, it largely depends on the head manager to enforce any changes in the daily kitchen staff's routine. Usually the owners and the management stay all day in the kitchen or serving area supervising the staff's work; therefore it is their direct duty to ensure that the staff also observes the food hygiene standards at work. The point of concern, however, is the management's adequate knowledge of food safety. For example, during the observations one of the head managers showed her attitude to the food hygiene when in front of all staff in the kitchen she accidentally dropped a plate with diced (on a "multipurpose" cutting board) pineapple on the dirty floor and next second she rinsed those pieces under tap water and later served them as a dessert to the customers.

In their turn the customers of the catering enterprises, who can usually observe the kitchen yard from the serving area, could potentially be a catalyst to make the management think twice about how the lack of food hygiene in their kitchens can affect their businesses. However, the customers usually remained absolutely indifferent as of what was happening in the kitchen. It was also customary for them not to wash their hands with soap, but just rinse them in a bowl of water, before dipping the fingers into the food (according to them, not to make the food taste "soapy"). This customers' ignorance or lack of knowledge about the food, contamination and hygiene, may also "passively" support the present level of food hygiene standards in the catering enterprises.

And in general, at times it was difficult to concentrate on food hygiene issues while the imminent health and safety problems in some of the observed ventures were palpable and posed a direct threat

## By Viktor Poluektovas, MSc Public Health

to the staff's health: collapsing charcoal stoves and tables, open electric wires, wet floor, continuous fire wood smoke fogging the kitchen yard, staff members with their children sleeping on the floor in the serving area during the night, etc.

On the bright side, however, there were exceptions among the participating catering enterprises with many good examples when the efforts were made to comply with the principles of the food hygiene and food safety. For instance, some of the cooks never forgot or ignored adding salt, even if it was not enough, to the water in order to wash the vegetables for a fresh salad. A lot of employees indeed tried to wash their hands regularly, even if there was no soap. Or, for example, some of the head managers enforced very strict rules on their staff about the cleanliness of the premises and made them personally responsible for the tidiness of their work place, and therefore achieving the best record of the vermin prevention control among other observed catering enterprises.

### Conclusion

The observations of the food hygiene and food safety standards practiced by the staff of the participating catering enterprises reveal some deficiencies and acts of mismanagement that create a threat for the customers' and employees' wellbeing. There are a few reasons for that.

Firstly, most of the owners and the managers of those enterprises do not prioritize addressing the food hygiene issues, while being more preoccupied with the immediate profit gaining work.

Secondly, a lot of employees and managers have inadequate knowledge about the food hygiene and food safety principles, mostly due to the lack of education.

Thirdly, the governmental institutions like KMA or Tourist Board, while being prolific in the field, do not exercise their authority enough to make the owners and the managers of the catering enterprises think seriously about their food hygiene practices.

Fourthly, the customers of the catering enterprises also lack initiative and knowledge about food, contamination and hygiene to be able to force the owners and the management to pay more attention to the food safety issues on their premises.

The main conclusion of the report is that the owners and the management of the catering enterprises should be held responsible for any food hygiene and food safety standards' violation in their businesses. They also should be targeted by the further research focusing on the effective methods of the food hygiene promotion and knowledge dissemination among their staff members in order to improve the food safety standards at the grass roots. At the same time, the law enforcing institutions like KMA and Tourist Board should be less compromising towards the law breaching enterprises and more innovative in the knowledge dissemination field in order to direct the owners' and the management's attention closer to the issues of the food hygiene and food safety. Finally, the customers of the catering enterprises should be encouraged by the authorities to be more food-conscious, critical and assertive in order to question the management of the catering businesses if they suspect the food hygiene and food safety norms have been infringed.

## Additional comments

1. The overall situation in the restaurants and chop bars appears very bad, so bad indeed that I want to know how relevant is our limited focus on contaminated vegetables?

It's indeed very relevant as contaminated vegetables are widely used by the catering enterprises in food preparation and are very popular among the customers – therefore it directly contributes to the incidence of the food-borne diseases if there is no appropriate knowledge about the washing techniques. Even Food and Drugs Board et al are not yet well aware about this “new” health threat, as they do not examine it during their inspections. I'd say it's a valuable and unique addition to the food safety prevention measures, which has not been “foreseen” by the contemporary food hygiene science.

In other words: what do you suggest how we can quantify/qualify the various risk factors you encountered (probably under different categories: for running stomach, for cholera etc.)? I am aiming at some scale where I can rank the wastewater risk in the general context of food preparation, later on in the general context of living in the city.

Apart from the above-mentioned risks of consuming the vegetables contaminated by the wastewater (as fresh salads, or in fried rice, burgers, etc.) I have not really seen any other obvious wastewater-related issues that pose threat to the people's health at the catering enterprises. Most of the problems described in the report are related to the basic food hygiene principles that must be observed in order to make food safe for consumption, e.g. hand washing, storage/cooking, etc. On the other hand quantifying/qualifying the risk factors is possible (e.g. 99% of the staff in the catering enterprises do not wash their hands with soap before handling the food; or 50% of them wash lettuce in inadequate saline solution, etc.). However doing the same against the clinical symptoms of food poisoning (e.g. diarrhea, vomiting, etc.) can be difficult, as:

- There are a lot of different types of food/water-borne illnesses with different symptoms: from trivial headache to diarrhea, vomiting, and even death.
- These symptoms can have other causes: malaria, allergy, etc.
- Medical facilities rarely record the food-borne illnesses as a cause of the disease (usu because they lack knowledge and facilities to do that + the costs of such analysis for the patient), moreover, local population traditionally does not take these symptoms seriously (e.g. diarrhea is endemic and considered “normal” state of body)
- Diarrhea is traditionally a “taboo” subject in Ghana and, probably, in other African countries, and will always be underreported

Therefore it may be very difficult to establish the exact number of food-borne incidents in the population and/or quantify the risk factors against them. However, some desk literature search, Ministry of Health data records and, maybe, household survey, can help to shade the light on the scale of the problem in general (not individual risk factors though). For example, it's estimated that food-borne illnesses contribute a total of 5 billion pounds of losses every year (incl. missed work days due to sick leave) in the UK alone!!! And all travel guide books, like “Lonely Planet”, make it straight from the beginning that even seasoned travelers get diarrhea at some point while traveling in Africa – i.e. it's “unavoidable”.

2. What could be changed realistically?

Well, any initiatives here must be done in a very close collaboration with the Tourist Board, Food and Drugs Board and local authorities (AMA, KMA, etc.) + other related governmental (Ministry of Health) and NGO due to the sheer scale of the problem and the number of the catering enterprises in the country. I'd suggest starting with the restaurants down to chop bars – as they tend (have resources and value their reputation) to comply with the requirements quicker + they are registered and have permanent address. It's also possible to work with the street food vendors, but there are thousands of them: they come and leave the catering business very frequently and invisibly. They also lack

## By Viktor Poluektovas, MSc Public Health

education, training, financial resources, direct access to the tap water and other necessary amenities + absence of vermin control = it will be difficult to assess the impact of the initiative on them. But their small size has a big advantage too: they can change the practices quicker.

We need your suggestions for the top-5 recommendations and what it needs to implement them. Maybe top-5 in an ideal scenario and top-5 under consideration of what really is possible? Maybe per restaurant class?

The common issues were observed at different class restaurants. Higher class restaurants usually have the necessary facilities in place (toilets, hand wash basins, water/product storage, etc) and better educated staff members, but the staff food hygiene practices have the tendency to be the same (e.g. lack of hand washing with soap). And the main problem of the lower class restaurants or chop bars is the lack of these facilities – and this is the main difference between them. However there is a strong correlation between the amount of working facilities present and the food hygiene/safety practices by the staff. In other words, it's difficult to change the practices without providing the necessary facilities that are freely available, accessible, convenient and cheap to use and maintain (e.g. a hand wash basin with soap, towel and running water; or its equivalent).

### Top 5 ideal:

- Renovation of many restaurants and chop bars as without ensuring the health and safety measures there is no point of talking about food hygiene/safety (substantial investment + governmental institution permissions).
- Anybody involved in food preparation or contact with food (including cooks and managers + owners) must obtain a health certificate; pass a food handler's test and/or at least basic food hygiene certificate course (in UK it's only 1-2 day's course), (some investment + tight TB et al control)
- Daily thorough sweeping and mopping of the premises, especially kitchens, toilets and storage areas + weekly general scrubbing of the kitchen (including wiping the fridges and shelves): the best preventative measure for vermin control and disease spreading.
- Hand wash basins with running water, soap and towels for the staff in the kitchens + control of the frequency the hands are washed (some investment + governmental institution permissions; TB, FDB, KMA controls during inspections).
- Separate toilet facilities for staff and customers with hand wash basins, running water, soap and towels (substantial investment + governmental institution permissions).

### Top 5 realistic:

- The kitchen towels/cloths that are used by the cooks must be changed and washed on every day basis (small investment, personal staff's responsibility, management control; TB, FDB, KMA controls in place)
- A temporary substitute of the hand wash basin to wash the hands – a pan or any other device (plastic kettle, etc) and control the frequency of the hand washing (small investment; TB et al controls)
- The kitchens, storage areas, toilets must be mopped every day after the finish of work (personal staff's responsibility, management control; TB, FDB, KMA controls in place)
- Appropriate storage facilities (including fridges and shelves), (some investment, TB et al controls)
- The kitchen staff has adequate knowledge about basic hygiene issues and microbiological contamination (incl. lettuce et al washing in solution; keep cooked food hot and protected from flies, otherwise – in the fridge; separation of the chopping boards and food/money handling; eggs in the fridge; children, animals, non kitchen workers are banned from entering the kitchen premises; animal slaughtering banned in the kitchens; refuse management; meat thawing techniques, etc). Training of the key players (managers, chief cooks, owners) is a must in order for them to pass the knowledge to their staff members. A joint cooperation between different institutions is necessary to make these training programs available and attractive for the key players to attend.

## By Viktor Poluektovas, MSc Public Health

Which incentives/pressures are possible under consideration of common attitudes and perceptions? How could we get their interests, maybe linked to other factors, like pride, fears, note in tourist guide etc?

Most catering enterprises are there for the profit gaining, which is natural: the more customers, the better. Therefore everything that stimulates or prevents the flow of the old/new customers is of great importance to them. In this respect the TB, FDB, KMA have some policies in place already (e.g. the "The chop bar/restaurant of the year", grade/class of the restaurant). The pride and fears are very important psychological factors here (e.g. being a famous restaurant in the town, etc). There is still a room for more incentives that are traditionally acceptable and psychologically/financially rewarding: the TB et al know them well, it's just a matter of financial support for the rewards from the government/third parties. On the pressure side, however, there should be more radical measures taken as TB et al play a very cautious game here and at times hesitate to be harsh to the defiant enterprises, e.g. article in the newspaper about the ventures that did not pass inspection and/or with unhygienic practices, etc., i.e. intentional (but deserved) tarnishing of the reputation through the media (a common practice in the developed countries, where customers' health has a higher value than the restaurant's profits).

3. Now some minor points: You mention a number of other reports/minutes which you could provide. YES, do so. Summary report:

page 2: which fiscal reasons?

It's rather political issue, as catering enterprises contribute a substantial part of revenue to the local and national budgets. Therefore the TB, being a governmental organization, hesitates to close down any catering enterprise as this directly undermines the flow of taxes to the government.

page 3: item 5, these details are very important for us, please provide.

page 4: item 7 and 8: please provide reports or what you have.

Consider it done

4. I learnt that a chop bar has fufu etc but not check-check and salad. Your definition of chop bars includes check-check sellers?

No, usually it is street food sellers and restaurants that offer fried rice (aka check-check) and salads to their customers. Conventional chop bars deal only with traditionally Ghanaian food (fufu, banku, ampesi, etc), while the fried rice and salads are not considered as traditional food, but rather "introduced" from abroad one. However, the restaurants, chop bars and street food sellers are branded as *catering enterprises*.

5. TB report: page 2: cost of license renewal?

35.000 cedis.

Did I get it right: there are in Ksi about 600 chop bars, 300 of these registered and 100 up to date licensed? There must be more, or?

Yes, according to the TB who registers them, but they do not know themselves the exact number and their statistics is probably not accurate anyway. Presumably there are more chop bars in Ashanti region than 600.

Did Tilde et al. try to count them?

No, Thilde et al were mainly preoccupied with food street vendors (rough estimate is over 2.000 in Kumasi alone), not higher class enterprises.

What about check-check sellers: separate or included?

Well the street food vendors who sell fried rice and salads were not included in my study, but Thilde's and et al. While the rough estimate of the restaurants (they all usually sell fried rice) is provided in the report.

How many sell check-check and lettuce?

Some of the street food vendors + restaurants



## By Viktor Poluektovas, MSc Public Health

Is there a clear limit what TB (Ministry of Tourism) controls and what KMA (Local Authority) and what FDB (Ministry of Health)?

No, according to the legislation their mandates overlap and thus unnecessarily overstretch their resources and complicate their work indeed. However, these institutions help themselves by signing MOUs and/or striking informal agreements of cooperation in order to clarify the responsibilities and duties.

Page 5: Could you give approx. % for the bullet points?

Well, it's difficult to state the % for each of the bullet point as even TB does not have this information, however my estimate of the unregistered (read "illegal") catering enterprises in Kumasi would range from 15% to 30%.

6. Imagine you are allowed to improve the check lists of TB and FDB.

If we are talking about ensuring the food hygiene in the kitchens, than the best bet would be addressing the FDB, as they are gradually taking over this responsibility from the TB and generally pay more attention to food hygiene/safety in the catering enterprises – as it's their direct responsibility and expertise.

Without changing too much, what would you add?

- Availability and accessibility of hand wash basins in the staff's toilets and kitchen, with running water, soap and towels
- Enquiry about the frequency of the hand washing with soap by the staff
- Enquiry about the cleaning procedures on the premises by the staff
- Enquiry about the vegetable washing techniques for salads and fried rice
- Enquiry about the separation of chopping boards
- Enquiry about the meat/fish thawing methods and food reheating
- Enquiry about the separation between money and food handling
- Probing into the cooks knowledge on storing and cooking the food (e.g. meat boiling time, temperature to store hot food, etc)

We like to send them our recommendations one day. The best is to give them all perfectly prepared. Do you have the lists digitally? Could you add the missing crucial points?

No, I do not have them digitally, and if the FDB also does not have it in electronic form than maybe it's possible to scan it and add the recommendations.

7. Did you ever check with the Traditional Caterers Association? They are often in the newspaper with training.

The Chop Bar Association that I described in the TB report and Traditional Caterers Association - is the same organization. Yes, they provide training for the chop bars, but they also have a lot of disputes that undermine the members' trust and authority of this Association.

8. Catering observations report: did you try to look through the people's eyes to understand their limitations, allowing us to get practical recommendations?

I'd say – yes

If yes, put this in the Methodology. Add that you have Africa experience in dirty places and do not look at the topic with highest standards, but practical ones.

Done

So you spent max 6 days per restaurant?

Yes

Your report reflects more the top level, allowing us in principle to assume that all other (street) restaurants are not better, right?

In principle – yes, but there are exceptions as well.

Compared to UK standards, which % of the restaurants would you close down until conditions improve?

## By Viktor Poluektovas, MSc Public Health

In Western Europe it is enough to lodge your complaint about the contaminated food to the environmental services division (Local Authorities) and the restaurant will be thoroughly checked and probably closed, if it is true. Spotting a cockroach in the restaurant in Europe means that it will be closed as well. I'd say a minimum of 60% of the local restaurants would be closed if they were in the UK.

Key person for training are the Head managers, right? What is this? Are these the bosses or the foremen? Those who still work or those who count money? Describe them allowing us to call them for a free training with attendance allowance :-)

Usually the owners are also the head managers. Their deputies and chief cooks should also be involved. In general: all those who have authority/responsibility to supervise the kitchen staff and/or are involved in cooking process.

**9. FDB report:** Do they take bribes except food to make reports better looking, or they just do not have the ambition to be strict as you describe it? Also here you mention the lack of relevant points in the checklist. These we need (see above).

I have to agree that TB, FDB and Local Authorities are sitting on a "golden pot" and are in a good position here to take bribes. However I never saw anybody taking one. As a matter of fact these institutions even lose their most able and talented specialists who emigrate to Europe or USA, as the salaries are low, their work and time overstretched and facilities for a proper work are missing. I'd say many of them who are honest feel disillusioned about their work. But there were also very optimistic and active specialists dedicated to their work.

## Ghana Food and Drugs Board and its role in upholding food hygiene and food safety standards among catering enterprises in Kumasi, Ghana.

**26<sup>th</sup> June – 28<sup>th</sup> July, 2006**

**Location:** Ghana Food and Drugs Board (Kumasi office, covering Ashanti and Brong-Ahafo regions), Kumasi, Ghana.

**Staff:** 15 employees; 5 of them, with diverse educational background and expertise in Biology, Agriculture, Food Sciences, Pharmacy, Biochemistry, were appointed to do inspections of, among others, catering enterprises; while another 5 were the recent university graduates (usually with BSc in Pharmacy or Biochemistry) attached to the FDB (and its payroll) for a year through the National Service.

A standard inspection team usually consists of one inspector and a National Service worker to assist him/her in note taking, observations and report writing. Although every FDB office is formally divided into two subdivisions – foods and drugs, any inspector or National Service worker are authorized to carry out any type of inspection, e.g. food safety, drugs, cosmetics, etc. According to the FDB, the inspectors were appropriately trained to do this.

There are also three 4wd cars available to do inspections.

**Methods:** Observations and informal interviews with the Ghana Food and Drugs Board (FDB) employees. Assessment of the “Summary report for the inspection of restaurants in the Kumasi metropolis from 11<sup>th</sup> – 26<sup>th</sup> January 2006” conducted by the FDB inspectors. Review of the legislation that underpins the FDB’s activities in the field of food hygiene and food safety (Food and Drugs Law, 1992, PNDCL - 305B; and Food and Drugs (Amendment) Act, 1996, Act 523).

### **Ghana FDB Profile:**

FDB was established by the Food and Drugs Law in 1992 (issued by then ruling Provisional National Defence Council) and put under control of the Secretary of Health. However it became fully operational only in 1997 after the Presidential elections and subsequent passing of Food and Drugs (Amendment) Act in 1996 that introduced new features and definitions to the Law (e.g. import and production of iodized salt) and shifted FDB under control of Ministry of Health and President of Ghana.

Since then the main focus of the Board’s work, according to its declaration, has been to “implement the appropriate regulatory measures to achieve the highest standards of safety, efficacy, and quality for all food, drugs, cosmetics, chemical substances and medical devices whether locally manufactured, imported, exported, distributed, sold, or used, to ensure the protection of the consumer as envisaged by the laws regulating food and drugs in force in Ghana”.

The central tasks of the Board are:

- To advise the Ministry of Health on measures for the protection of the health of consumers
- To ensure adequate and effective standards for food and drugs
- To monitor through the District Assemblies and other agencies of State compliance with the Law
- To advise the Ministry of Health on the preparation of effective regulations for the full implementation of the provisions of the Law

The extent of the FDB’s authority is reflected in a composition of its Board, where the members are appointed by the President and represent a broad spectrum of public organizations and governmental institutions:

- Ghana Standards Board
- Food Research Institute
- Ministry of Agriculture

## By Viktor Poluektovas, MSc Public Health

- Ghana Medical Association
- Pharmacy Board
- Nutrition and Food Science Department of University of Ghana
- Environmental Protection Agency
- Attorney-General
- Consumer Interests (i.e. general public)

Moreover, the Board may also invite any person to act as advisor at any of its meetings.

### **Food and Drugs Law (1992), and Food and Drugs (Amendment) Act (1996):**

The Law gives a clear interpretation of the words and expressions it uses in its contents. Among others (e.g. “health inspector”, “chemical substances”, “unsanitary conditions”, etc.) the decree describes food as “salt and any article manufactured, sold or represented for use as food or drink for human or animal consumption, chewing gum, water and any ingredient of such food, drink, chewing gum or water”. Therefore, it does not limit FDB to overseeing the food per se, but also authorizes this institution to watch over the provision of safe and drinkable water for the general population and manufactures that use water in their production, e.g. beverages. Moreover the legislation obligates FDB to keep and regularly update separate registers for the registration of foods, human and animal drugs, herbal medicines, cosmetics, devices and chemical substances.

Although the Law does not specifically mention catering enterprises in its statements, it enables FDB to deal with “any person who manufactures, labels, packages, sells or advertises any food”, including those who give the food away free of charge as “a prize or a reward in connection with any entertainment or advertisement to which public is admitted”.

The Law introduces a detailed list of various conditions and circumstances when food is deemed to be “injurious to health” or “unfit for human consumption” and foresees appropriate prohibitions “against sale of unwholesome, poisonous or adulterated food”. The decree further develops this issue by stating that “no person shall manufacture any food for sale unless the food is manufactured under the supervision of a person with appropriate knowledge and qualification who can ensure the purity and wholesomeness of the food”, and defining what it considers an appropriate “storage and conveyance” of food in order to keep it hygienic and safe for human consumption.

While showing the personal and corporate responsibilities of those involved in food manufacturing, labeling, packaging, selling and advertising before the general public (e.g. “deception of consumers”, breaching the “standards of foods”, sale of food under “unsanitary conditions”, etc.), the Law empowers the FDB to take strict action against the offenders (e.g. fine, imprisonment or “closure of premises where there is risk of contaminated food”). It even goes further by protecting the population against those “who uses or disposes of any chemical substance in a manner likely to cause contamination of food or water for human consumption or in a manner likely to be injurious or dangerous to the health of any person...”

At the same time the decree defines the rights and responsibilities of the FDB health inspectors. A special attention is paid to the inspections of “any animal intended for slaughter” with regard to the examination of meat that is considered “unfit for human consumption” by authorized officers.

FDB is also authorized to obtain the samples of the ingredients used in the process of food production for further investigation of the products’ safety for the consumers. With regard to this, the Board facilitates on appointment of public analysts “for every district”, qualified to undertake an examination or analyses of the samples sent to them by the FDB inspectors.

Ultimately, the Board advises the Ministry of Health on making further regulations by the means of law in the field of:

- Specifying what constitutes adulteration of any food
- Governing:
  - the treatment, processing and manufacture of food
  - the packaging, labeling, advertising and selling of food
  - the size, dimensions, fill and specifications of packages of food
  - the use of any substances as an ingredient in any food

## By Viktor Poluektovas, MSc Public Health

- the protection of the consumer or purchaser of food from being deceived or misled as to its quality, character, merit or safety
- Regulating the importation of food in order to ensure compliance with the law
- Prescribing the type and level of food additives
- Prescribing methods of manufacture, processing, sale, storage and transportation of food
- Prescribing forms and particulars to be provided in forms

According to the Law, the Board has the right to “publish codes of practice for the purpose of giving guidance” to all sides that it considers to be its responsibility, e.g. general public, manufacturers, importers, etc.

### **FDB and catering enterprises:**

In the beginning of its work the FDB did not consider the food hygiene and food safety inspections of the catering enterprises to be its main concern due to a large number of other urgent issues it had to deal with, e.g. registration, analyses and supervision of imported, exported and locally manufactured produce (e.g. FDB has its appointed inspectors at all major border crossings to ensure that all imported food items go through the necessary stages of quality and safety control to be cleared for entry). However, over the time, the public’s concern with the quality and safety of food sold in the restaurants, chop bars and street food vendors was growing bigger. Those food-related issues and scandals, well exposed by the media, received a substantial public attention and put the FDB in the limelight.

In its turn the FDB took that issue as a challenge and sought close liaison with other governmental institutions, in particular with the Tourist Board (TB) and local authorities (e.g. Kumasi Metropolitan Assembly), in attempt to make sure the catering enterprises comply with the food hygiene/safety standards. Currently, for example, the FDB in Kumasi is to sign a Memorandum of Understanding with the TB, authorizing the FDB to take a full control of the food hygiene inspections in the restaurants, as it is not an immediate area of the TB’s expertise and concern. At the same time this agreement will help to avoid the overlapping, overstressing and wasting of the limited resources. On the other hand, the FDB gives a priority and all the necessary support (training, expertise and consultative) for the KMA environmental health officers to inspect and supervise the street food vendors (as KMA issues licenses to them in the first place) and chop bars (as both FDB and TB have no enough capacity to observe them all).

At the same time the TB, which registers and issues licenses to the restaurants and chop bars, provides the FDB with information about the registered catering enterprises. Jointly with the TB they also carry out educational workshops for the management and staff of the catering enterprises on the issues of food hygiene and safety.

Moreover, the FDB does a lot of public awareness work through the popular newspapers (e.g. educational articles like “Freezing prepared foods in the home”, “Safe meat, a matter of serious health concern”, “The management of Sudan dyes in the palm oil industry”, etc.), radio, TV and street campaigns (e.g. “A week of food safety in Kumasi”, etc.). Also, from the last year, the FDB started actively encouraging the general public to exercise their consumer rights by bringing their complaints about food hygiene and food safety practices observed in the catering enterprises to the FDB for assessment and potential further inspection of the site.

At the same time the FDB monitors the media to protect the public from the fraudulent advertisements of unregistered or unsafe products. In fact, those manufacturers, importers or retailers, whose produce is supposed to be registered with the Board and who intend to promote it through the media, cannot do it by law, unless an approval is obtained from the FDB.

### **Types of inspection of the catering enterprises:**

Depending on the circumstances, the FDB officers may carry out three types of inspection in the restaurants and, if the resources allow, in the chop bars:

- “Pre-license” inspections are done on the TB’s request in order to issue a license to a prospective catering enterprise. The aim of the FDB inspectors is to ensure that the venture has appropriately

## By Viktor Poluektovas, MSc Public Health

functioning facilities and controls in place (e.g. hand washing facilities, toilets, ventilation, pest prevention, etc.) to enable its staff to comply with the minimum required food hygiene standards. Then the inspectors' report and recommendations are sent back to the TB, where they will be also considered in the final decision making whether to grant or not a license to this catering enterprise.

- "Audit" inspections are mandatory and are carried out at least once a year in all licensed and fully functioning catering enterprises. The owners are informed about the inspection in advance to give them some time to make sure the premises attain the required standards of hygiene and the staff members have their health certificates ready, etc. Moreover, the owners and head manager are also asked to prepare and explain to the inspectors the business's "catering management plan" in order for them to "see" a complete picture of the kitchen's work, from staff members to food purchasing, storage, preparation and serving.

- "Spot" check-ups are usually done as a follow-up to the "audit" inspection, without prior announcement to the venture's management (i.e. "surprise" visit) and as many times as necessary to make the FDB officers sure the enterprise implements the given recommendations. There has been an increase in the "spot" check-ups due to the FDB's initiative, mentioned above, for the frustrated customers to lodge their complaints with the Board against "unsafe" or "unhygienic", in their opinion, practices in the restaurants and chop bars.

The inspectors frequently fine the defiant catering establishments for infringing the food hygiene or food safety standards or for not implementing the recommendations. It is also not rare for them to suspend temporarily the restaurant's or chop bar's work, usually for a week, to "let them improve the situation", if the kitchen's sanitary environment is considered "unacceptable" and puts the customers' and staff's health at danger. However, the FDB employees could not recall a single case when a catering enterprise was closed down by them, mostly because "it is not a purpose of our work, what do we gain by closing it?" According to them the food hygiene inspections helped a lot to improve the kitchens' facilities and employees' personal hygiene. However, the "inadequate kitchen spaces" of many catering enterprises that were established on the premises not originally designed for that purpose, and "the managers' supervision" that reluctantly enforces the recommendations - are still the major challenges for the FDB. On the other hand, the Board's schedule of planned inspections and visits for a following month is not fixed and is unreliable.

### **Inspections and Food Hygiene:**

The FDB officers use a special inspection form when doing examinations of the catering enterprises. This form consists of statements that are based on Food and Drugs Law (1992), and Food and Drugs (Amendment) Act (1996) major principles of food hygiene and food safety. These statements are arranged in a logical sequence and divided into sections:

- Immediate environment of the premises (nature and cleanliness)
- Sources of heat
- Sources of raw materials (open market or approved suppliers)
- Treatment and preservation of raw materials
- Storage facilities, incl. freezers and refrigerators (stacking discipline, temperature and cleanliness)
- Handling of cooking utensils, serving plates and cutlery
- Source of water
- Pest control measures
- Safety control (extinguishers, first aid box)
- Waste management
- Personnel (health certificates, personal hygiene, uniforms, changing room, hand washing facilities, toilet and bath)
- Documentation

An inspector has to fill in the provided gaps, or just to tick in a box whether the listed facilities in these sections are available or not.

## By Viktor Poluektovas, MSc Public Health

When the FDB officers come with an inspection to a catering enterprise they ask first to see a manager or his/her deputy to explain him/her a purpose of the visit and then fill in an inspection form. After that they ask them to show the premises (i.e. visual inspection).

In the process of filling in the inspection form and documenting the manager's answers, the inspectors usually supplement this with verbal educational illumination of different hygiene and sanitation aspects, related to a particular statement in the form., e.g. the advantages of using soap instead of washing powder for the washing up and hand washing; the benefits of switching to approved meat/fish/vegetable suppliers to be sure that the products are of good quality; the health aspects of using the iodized salt in the cooking process; or the reasons the jewelry should not be worn by the cooks in the kitchen, etc. In conclusion the inspectors summarize the findings on the areas where the state of care is deficient and ask the manager to come to the FDB in a few days to collect the copy of the report with the further recommendations.

Despite the fact that the inspection form is comprehensive and the professionalism of the inspectors raise no doubts, there are still some deficiencies present in their work. First of all, the form misses some of the additional statements in its contents that would allow to probe into some of the very important aspects of the food hygiene (e.g. frequency of hand washing). And secondly, the inspectors do not usually explore beyond the statements in the inspection form, i.e. they do not ask the questions that have to be asked if one does the food hygiene and food safety inspection, as these questions are not listed on the form. For example, during the observation of the inspection procedures in the 2<sup>nd</sup> Grade restaurant conducted by a FDB inspector (a pharmacist by education) and a National Service assistant (a biologist by education) the following issues were never questioned by them:

- If the hand washing was practiced at all by the employees (especially in the kitchen) in the process of handling the food
- If the hand wash basin and sink in the kitchen were functional and had towels and soap provided
- If the vegetables for the fresh salad were washed in a due way, i.e. water solution with salt or vinegar
- If the kitchen staff used the separate chopping boards for the raw meat and for fresh vegetables or bread. In fact the inspectors even encouraged the cooks to use one plastic chopping board and abandon the wooden ones (as they may "contain bacteria")
- If the cooked rice, remaining from the previous days, was still used for further cooking
- If the frozen raw poultry was left in the room temperature to thaw

And in general, the inspectors:

- did not check the fridge
- did not check the staff toilets
- did not check the storage area with the raw foodstuffs
- drew conclusions about the staff's personal hygiene by observing if the hair was tidied up, nails cut short and uniforms looked clean
- and did not ask a question about the food cooking procedures (e.g. meat boiling time or reheating the remaining food)

In fact this caused no surprise, as a few weeks before that the researcher was served a piece of cold fried chicken with a dead fly inside, in a small restaurant next door to the FDB, where some of the Board's employees also had their meals. Moreover, this fact did not seem to confuse the kitchen staff at all, but rather entertained them and they still were going to charge the whole sum for that meal.

As a matter of fact, the similar trends were observed while reviewing the "Summary report for the inspection of restaurants in the Kumasi metropolis from 11<sup>th</sup> – 26<sup>th</sup> January 2006", when the food hygiene and food safety standards of 34 restaurants were examined by the FDB inspectors. While the objectives of the inspections were to ensure that:

1. the restaurants operated in a hygienic and sanitary environment
2. the chefs and cooks exercised high personal hygiene
3. the food served was safe and of good quality so as not to endanger the health of the consumers

## By Viktor Poluektovas, MSc Public Health

The observations focused on:

- if the immediate surroundings of the restaurants were clean
- if there were pest control measures present
- if the cooks wore jewelry during the work time
- if the restaurants had their daily activities documented
- if the fire extinguishers were present and staff knew how to use them
- if the shatterproof casings for the electric bulbs were present
- if the expired food was still being used
- if fridges and freezers were clean and the raw and cooked food stored separately in them at appropriate temperatures
- if the staff members had up to date health certificates
- If the first aid boxes were present

Therefore the inspectors did not probe into other relevant food hygiene and food safety aspects that were not mentioned originally in the form.

It was also interesting to find out the level of the FDB's authority over the catering enterprises in the "Challenges" section of the summary: "The restaurants did not conform to the directives of the Board to suspend their operations and to implement all the recommendations made to them". Correspondingly, in the "Recommendations" section, the inspectors suggested that "the Board should severely punish restaurants that do not conform to directives to close down their premises, for example, they should announce on radio stations that those eating-places are not hygienic". On the other hand the inspectors also suggested arranging more examinations of these restaurants and additional workshops and seminars on hygiene and sanitation issues for the restaurants' management and cooks.

### **Inspection of the sachet water producing enterprise:**

Any enterprise planning to produce bottle/sachet water, juice or any other type of beverage for commercial purposes must by law register its products with the FDB before commencing the full scale production.

So far the FDB has registered about 200 sachet water manufacturers in Ashanti and Brong-Agfao regions. However, there are numerous illegal sachet water ventures, which are constantly pursued by the FDB. When one of those illegal schemes is disclosed, the Board usually fines it first and then offers it to go through the formal registration in order to obtain the license, otherwise, it will remain locked with the FDB's padlocks.

In order to obtain the operational license for the sachet water enterprise, the stakeholders have to:

- Collect all the necessary permission papers from other official institutions (e.g. geological surveillance, building planning permit, business certificate, logo for the sachets, staff health certificates, etc.).
- Get an access to the water source, build the production site and install all the technology, including pumps, water storage tanks, filters and the sachet water producing machine (currently the most popular one in Ghana is chinese "Koyo", with production capacity of 2000 – 2500 sachets of water per hour; the distributors also provide after-purchase maintenance and teach the customers how to operate and clean it).
- Implement all the recommendations of the FDB "pre-license" inspection that was done to ensure that all the installations, health and safety measures, hygiene and sanitary conditions, appropriate documentation, etc. are already in place and the enterprise is ready to start production.
- Take water samples from the production site (before the filter treatment and after) to the designated institution (usually the local university, e.g. KNUST, that collaborates with the FDB) for laboratory analyses of the water chemical composition (which will be also imprinted on the water sachets) in order to obtain another permission.



## By Viktor Poluektovas, MSc Public Health

After all these procedures done the FDB normally issues the license to the enterprise (usually it takes 6 weeks to 3 months between the “pre-license” inspection and license granting). The FDB also makes sure that the name on a sachet corresponds to the real source of water (most of the water in the sachets originates from either borehole, well, or GWCL). For example, if it is a filtered pipe-borne water, the name on the sachet should say “filtered water”, not “spring” water.

Following the license issue the FDB inspectors usually do 1-2 unannounced “spot” checks of each registered enterprise a year. For all water/beverages producing ventures the FDB uses the special inspection form - “Check list for the Water Industry”, which is very comprehensive and convenient (as mostly consists of the “tick-in-the-box” options).

During the observed “pre-license” inspection of a sachet water enterprise (placed in a village, one hour drive from Kumasi) the inspectors showed a high level of expertise and knowledge in this field. In the process of filling in the inspection form and documenting the manager’s answers, the inspectors supplemented that with verbal educational clarification of different hygiene and sanitation aspects, related to a particular statement in the form, e.g. advantages of cementing or planting the grass in the yard with the borehole to prevent the water source contamination; the importance of regular washing the water tank with a special food grade detergent; the importance of the filters and ultraviolet (UV) sterilizing tube in elimination of the pathogenic microorganisms and that the clean water must be at all times tasteless, odourless and colourless; importance of showing the batch number on the sachet to be able to trace down the defective consignment of sachet water, etc. At the same time they also cautioned the stakeholders that it was “very easy to shut the business, but nobody wants it, is it right?” in an attempt to ensure that the management would follow the necessary procedures in order to maintain the production site in hygienic and sanitary conditions.

The inspection usually opens by telling the proprietors a purpose of the visit, and a caution that the next visit will be unannounced. It is then followed with the filling in the inspection form and subsequent visual inspection. Each segment of the production line is thoroughly examined: from the borehole, pumps and the water tank to the staff’s health certificates, water proof uniforms, change room, toilets, hand washing, fire extinguishers and first aid box, etc.

The inspectors also ask the owners to describe the full production process from the beginning to the end in order to check their knowledge. In the observed enterprise the water was pumped from the 50 m deep borehole through a carbon filter to the 5m<sup>3</sup> (5000 litres) water storage tank, then another pump took it through another 5 carbon filters and ultraviolet sterilizing tube to the machine and sachets. The full process is fully automated, including the sachet sealing (the manual sealing was legally banned in Ashanti region).

In conclusion the inspectors summarize the findings on the areas where there is a need for improvement and ask the manager to come to the FDB in a few days to collect the copy of the report with the further recommendations.

### **Conclusion:**

Within nine years of its functioning the FDB has created the necessary legal and professional expertise for effective regulation and supervision of the food hygiene and food safety standards practiced by the catering enterprises, especially in the restaurants and chop bars.

However, the inspection form that was developed to assist the officers in evaluating the hygienic and sanitary standards of the kitchen’s environment in the catering enterprises, lacks some of the important statements in its contents that would allow to check out a wider range of the food hygiene and food safety aspects to better ensure that the food pose a threat to the customers’ health.

On the other hand the inspectors themselves do not usually probe into other food hygiene and food safety issues beyond the statements in the inspection form.

Moreover, the FDB constantly experiences the shortage of the manpower and financial support from the government that makes its human and monetary resources extremely overstretched and the office incapable to properly exercise its duties in the field.

## **Interviews with the head managers of the previously observed catering enterprises about the factors affecting the food hygiene/safety at work, Kumasi, Ghana.**

**31<sup>st</sup> May – 12<sup>th</sup> June, 2006**

### **Attachment to the research component CP-51**

#### **Location and timing:**

All six interviews with the head managers of the catering enterprises were taken at their respective places of work, situated in different locations of Kumasi. Four interviews were taken in the morning and two in the early afternoon.

These were the same establishments where preceding participant observations of food hygiene and food safety had been done.

#### **Interviews:**

Semi-structured interviews with open-ended questions were developed in a logical sequence to facilitate a free flowing conversation within preset frame while probing into various aspects emerging during the talk. First eight questions (Part 1) were concerned with exploring the management's perception of the work they did; the view on their employees; and chain of command in their establishments. While the last six questions (Part 2) were to investigate their knowledge and opinion of the food hygiene and food safety aspects practiced by the catering enterprises in Ghana. Some of the questions were modified and new ones were added in the process, in order to adjust the focus of data collection or cover the issues not previously considered.

The time for interviews was agreed with the managers beforehand. However two interviews were postponed without notice until later dates. An interpreter was invited to facilitate for three interviews with the managers who could not speak English. The interviews lasted from 45 min to 1 hour and passed in a welcoming atmosphere until the second part of the interview, when the informants seemed to be slightly nervous about giving a "correct" answer. Also, after the interviews, some further clarifications regarding the respondents' answers were done over the phone.

Part 1 and 2 were briefly introduced to the head managers before commencing/continuing the interviews. Their help and contribution to the research were praised and data confidentiality reassured.

#### **Informants' profile:**

All six head managers were also the owners of the businesses with varying length of experience: from 1 year to 18 years long. Five of them were females and one male, aged from 31 to 56 years old. All but one were married and had children. A husband of one of the informants was a co-owner of the enterprise and was in charge of the financial and administrative sides of that business. Whilst the husband of the other one was a priest in a church that provided the premises for the venture on its site. Nearly all catering enterprises were to some extent a "family" business. All interviewees had different educational backgrounds: from Junior Secondary School to Catering course at Polytechnic. Likewise, catering enterprises of varying socio-economic status, popularity and menu were represented: two Grade 2 restaurants, one unlicensed restaurant, one Grade 3 restaurant and two chop bars (traditional food sellers, also known as "informal catering establishments").

### **Part 1**

#### **Managers' attitude towards their work**

All managers admitted that their work can get at times very "hectic" or just be "tiring" and "stressful" due to small profits, long working hours or dealing with the disobedient staff: "*the work not for lazy*

## By Viktor Poluektovas, MSc Public Health

ones". However, many respondents called their work "interesting" or "involving" as it *"brings personal satisfaction especially when one feels knowledgeable to do it and to see customers' appreciation"*. When describing the attractive sides of their work some of them also mentioned:

- receiving a large order and distributing this work among the staff
- being an ultimate decision-maker and profit-taker and
- meeting "new faces"

On the other hand, one proprietor with the largest experience in catering business, said there were no attractive sides of her work as *"It's about earning the money and then spending them – that helps to ignore all the negative sides of this work"*. And all managers mentioned dealing with lazy and unreliable staff ("disobedient", "not punctual", "thieves") as the most frustrating aspect of their work. Customers' complaints about the quality of food and low patronage (*"expecting the worst when customers do not come"* or *"they (i.e. the staff) do not cook as good as me"*) were the other aspects of the work that worried them. Some owners said "previous experience" helped them to overcome these disappointing aspects: *"it's like a graph - up and down, we pray this not to happen"*.

### Best and worst experience while being a manager

Nearly all restaurant managers recalled their best experience in their careers as an opportunity to *"feed the Ghana's famous people and see their appreciation"*, e.g. the president and vice president of Ghana, foreign delegations, etc. While the chop bar managers recalled their best experience as *"receiving a fridge and radio from a generous customer"* or *"to live till Christmas break and to go away from this place for some time"*.

Meanwhile, among the worst experiences were named:

- not to be able to pay off the debts
- loosing a lot of money when the customer did not come to collect a big order
- Ghana's football team loosing international matches, i.e. no customers
- *"a big fight in the kitchen between men who spilled a few pots with soup"*
- some customers were robbed just outside of the restaurant

### Staff

All proprietors said that their staff was *"an important element that makes money for you"* or *"important as divisional labor"*. The managers split up in their answers about the most appropriate place in a building for them to stay during a routine working day. Some said it was serving area *"as a point of contact with the customers in order to see their satisfaction"* and *"to make sure the customers are served on time and presentation of food is appropriate"* or *"to observe the money handling and ensure the staff is polite to the customers"*. Whilst the others clearly preferred the kitchen *"as it's important to make meals tasty through good supervision of cooks' work"* and *"to make sure that staff doesn't steal meat"*. Some managers said they had *"a special place to sit"* in their restaurants/chop bars convenient enough to be able to observe the work of all their staff.

### Staff employment, training and dismissal

The restaurant owners usually prefer an interview with an applicant to *"find out the knowledge and work experience"* and also ask him/her to show their certificates of appropriate catering education: *"at least vocational school certificate, at best polytechnics"*.

Meanwhile, the chop bar owners rely on their "first impression" about the job seeker: *"those suspected to be lazy are closely monitored in the first three days"*. In their turn, they do not ask for any proof of "qualification" or health certificates, however a "possession of calculating skills" was regarded as an advantage. Concerning the applicants' personal hygiene, one of the chop bar proprietors preferred the new workers to be "not too dirty and not too clean" as, according to her, when somebody looked clean, they did not want to work hard in order not to make their dress dirty.

The restaurant owners said they always sent a newly employed person to obtain a health certificate (paid by an enterprise). Although the owner of a higher class restaurant said she "expected" the applicants to bring their health certificates for the interview.

## By Viktor Poluektovas, MSc Public Health

Usually the managers anticipated the new employees to:

- be able to work on their own initiative
- be *“neat, punctual and faithful to work and employer”*
- *“work hard”* and
- *“have a positive attitude towards work”*

Some restaurant managers, in order to examine a new chef, asked him/her to *“arrange their own menu and cook a randomly chosen dish from it”*.

The respondents named themselves or a *“delegated professional”* from the staff to be in charge of the kitchen, usually *“senior cook with vast experience in that kitchen”*. But it was always a different person who was in charge of the cleaning: from *“all who work in the kitchen - clean it”* in the chop bars to the *“manager’s deputy”* in the restaurants.

All owners recognized it was a *“personal manager’s responsibility”* to find time and train the newcomer about the aspects of their new job and introduce them to a new environment. This could be done through *“under job short training”*, when a senior member of staff or all employees trained and assessed the beginners for a certain period of time - *“circulation time”* (usually from 1 week to 1 month).

The managers gave a mixed reaction on a question about their dealings with the staff members who did not follow their instructions. One camp was very straight forward about this issue: *“give a warning and then sack the stubborn ones”*. While the others were more careful when dealing with such cases: *“query them first and caution them. If there is a good reason they did this, then compromise should be possible”* and *“it is good to listen to your staff and not to be like Cesar, who saw only his reflection in the mirror”*. One of the chop bar owners had an alternative approach: *“I get angry first and then let the other staff members to decide what to do, and if the person is stubborn, we sack them”*.

### **Part 2**

#### **Most important aspects of food hygiene in catering enterprises**

All informants were unanimous in saying that the first rule to *“ensure food safety and avoid epidemics is to keep environment as clean as possible”* and that *“every manager knows the motto: tidy up as you work”*. Some also mentioned that the premises should be cleaned by using a *“detergent”*.

Personal hygiene of the staff members came second, with the managers mentioning:

- short nails; no *“bushy”* hair; long hair covered with a hat
- presentable staff, wearing *“neat dress”*
- *“staff should take a bath and change cloth before serving the customers”*

Most respondents also said that the deterrence of flies and covering the ready food was very important as *“the poisoning with bacteria starts when the person starts consuming the food. It’s because food is exposed to flies and to keep the bacteria off there is a need to keep food covered with lid”*.

Among other food hygiene aspects mentioned were:

- Regular *“medical checks of the staff to screen for malaria, low blood pressure, TB and HIV”*
- *“Staff should wear gloves or use tongs to handle food”*
- *“Knowledge how to store food, especially fresh food, e.g. in a fridge”*
- *“Good”* ingredients
- *“Boil the food long to kill bacteria”* and *“avoid putting too much spices as it’s not good for health”*

Only one restaurant manager pointed out at regular hand washing as an important aspect of food hygiene *“because of germs on the fingers”*. Another owner mentioned *“lack of finance”* as the reason for not improving the standards of food hygiene in the catering enterprises.

#### **Available sources of knowledge about food hygiene**

Most often cited by the respondents sources of information about food hygiene that were available for catering managers were: TV, radio (*“provides education and gives warnings about outbreaks of*

## By Viktor Poluektovas, MSc Public Health

diseases, e.g. cholera”), Kumasi Metropolitan Assembly (KMA, “e.g. they teach how to wash foodstuffs”) and Tourist Board (that “does at least one workshop in two months for restaurant managers”).

Some owners also mentioned “Nestle Ghana food bazaars” that “does educational rounds with facilitators, e.g. hygienic cooking practices, new product promotion, etc.” One of the restaurant owners used to work as a facilitator with MAFFAG for one year, “teaching the street food vendors about hygiene and use of spices in cooking”. At the same time, one of the chop bar owners commented that “her family taught her everything about cooking and she doesn’t seek other sources of information”.

### Awareness of hand-washing campaigns in Ghana

All interviewees without exception at least heard about ongoing hand washing promotion in Ghana from TV or radio. Some of them watched “fufu woman advertisement, where they showed hand washing without soap after visiting the toilet - but we all know about it! Our fufu pounders know about this! Publicity was glaring about contamination: that pink color on the hands of the woman, bringing many different types of bacteria near the food”.

Nearly all managers supported that initiative and said those campaigns were important as:

- “a lot of youth that work in catering may not know about it”
- “they wouldn’t have this knowledge without these campaigns”
- “it protects us of what can kill”
- “people get cholera”, i.e. if they do not wash their hand during an outbreak

Although one of the managers sounded controversial saying that hand washing campaigns taught her to provide customers with clean towels and soap, and minutes later adding that those campaigns “are not necessary, as all who attended JSS know well about personal hygiene like hand washing”.

### Methods of hand-washing enforcement at work

Different managers applied different methods to enforce hand-washing with soap among their staff members:

- “To put notices on the wall and in the beginning of every working day to keep reminding the staff about it so that after 3 or 4 or even 10 times they will simply remember it. This is part and parcel of any catering business.”
- “I always put soap near all sinks so that when they see it they wash their hands. No problems about it.”
- management gives them an example by washing their own hands
- through regular staff meetings

It was interesting to find out that some of the managers, especially in the restaurants, genuinely believed that if they provided soap and facilities to the staff then the staff would indeed regularly wash their hands with soap. These managers also believed that the employees knew the rules and reasons of hand washing and hence never bothered to check if this happened in practice.

Other managers were very straight forward by saying that even if they provided the soap to the staff they “cannot do anything about it, as we are all humans and cannot observe everybody”. Moreover, one of the chop bar owners believed that her staff did enough hand-washing through handling water in the process of cooking or washing up, and taking a bath before cooking and after defecation.

### Handling of raw meat and eggs by the staff

All the managers cut it clear by saying that raw meat, if not cooked, should be stored in a fridge or be frozen “to avoid spoiling”. Many respondents also mentioned a “thorough washing” of purchased raw meat in tap water before cooking or putting it into the fridge. One of the respondents was describing why raw meat should not be kept long in a room temperature: “microorganisms will contaminate it”; and why it should be cut on its own chopping board: “it can get contaminated with, for example, fish odor”.

Majority of the informants said that raw meat must be well cooked to “get rid of bacteria” or boiled with salt “for preservation” purposes. However the managers had different knowledge about the time

## By Viktor Poluektovas, MSc Public Health

of boiling the raw meat to make it ready: from one to three hours long. Another manager pointed out that raw meat should be boiled separately from vegetables before mixing them together in the end.

Very few informants were confident to say that raw eggs should be stored in a fridge. The majority did not see any problems in keeping large amounts of eggs on the shelf in the kitchen or somewhere else at a room temperature. At the same time there were knowledgeable answers too, like: *“Raw meat and eggs are the source of food poisoning so we don’t buy a lot, and always keep them in the fridge”*.

### Protecting customers and staff from outbreaks of diseases

Some managers at once pointed out at conducting *“regular staff health examinations at hospitals”* and following the news on TV and radio, as some of the preventative measures against epidemics like bird flu and cholera.

In case of a cholera outbreak, most owners singled out *“clean premises and environment”* as the most important aspect of disease prevention in their businesses, because *“cholera comes with unclean environment”* and therefore there is a need to *“wash the place and scrub the floor with soapy water”*. Among other protective measures mentioned were:

- Covering the food
- *“Eliminate flies and insects and spray the air with air freshener”*
- *“Clean the gutters from rubbish”*
- *“Wash dishes with hot water and soap”*
- Staff should *“cover the hair, keep finger nails clean, and wear clean white dress in the kitchen to protect themselves”*
- *“Wash and iron the towels to kill bacteria”*
- Provide safe drinking water, e.g. “tap or sachet water”
- *“Keep food hot as cold food can cause cholera”*

And one of the respondents underscored the whole point: *“If the place is clean and staff is also clean – this will ensure the customers that it’s safe to eat here”*.

As with regard to bird flu prevention aspects, the managers’ opinions divided. Some of them have already stopped buying and cooking the chicken: *“It’s little we can do about contaminated meat, unless somebody tells us it is contaminated”*. The others stopped buying the locally reared poultry and relied on their “trusted” suppliers. While one of the chop bar owners went on saying that the chicken meat they cooked was safe for consumption because *“we buy and kill chicken ourselves and customers know about that”*.

### Managers’ opinion about KMA, Tourist Board and Food and Drugs Board

The owners divided in their views on the work these organizations did for the catering enterprises. Some of them complained that *“they do very little in return to the amount of taxes we pay to the government”* and even went further by saying that *“they don’t do anything to educate the caterers”*.

However the majority of the respondents supported the efforts of these institutions: *“They help to do things right (Ewose wo ye nea eye): if you don’t do it – they take you to the court”* and *“they do good work and force the caterers to comply with the rules”*.

If the respondents were the directors of these institutions in imaginary scenario, they would:

- *“make a questionnaire for restaurant managers to find out their problems ..., or if they need any help”*
- *“set up special awards for the best caterers to promote competition”*
- *“assign a medical team to check all the restaurants regarding health, cooking practices and hygiene in order to educate the ignorant caterers”, i.e. more educational aspects*
- *“continue their work as it is and pay more attention to the issues of disease prevention”*
- *“make inspections more regular (every 3 months) rather than doing irregular spot checks”*

One of the managers could not “imagine” herself being a director of any of those organizations as during the interview a KMA officer arrived who wanted to talk to her and was waiting nearby for our talk to finish.

## **Ghana Tourist Board and its role in upholding food hygiene and food safety standards among catering enterprises in Kumasi, Ghana.**

**8<sup>th</sup> – 14<sup>th</sup> June, 2006**

**Location:** Ghana Tourist Board (Kumasi branch), Kumasi, Ghana: 23 employees, 8 of them can do inspections of accommodation and catering enterprises. There is one 4wd car that belongs to the office and is also used for inspection rounds.

**Methods:** Observations and informal interviews with the Ghana Tourist Board (TB) employees; the chairman of the Ghana Restaurant Association (Ashanti region branch); the chairman and members of the Ghana Traditional Caterers' Association (Ashanti region branch). Review of the legislation that underpins the TB's activities in the field of food hygiene and food safety (Legislative Instrument 1205 – Accommodation and Catering Enterprises Regulations, 1979).

### **Ghana TB Profile:**

TB was founded in the end of the 60<sup>th</sup> under auspices of Ghana State Hospitality Corporation (now defunct) with the sole purpose of ensuring comfortable accommodation, decent food and local sites of attraction for the visiting delegations, conferences, etc., and a small number of tourists that visited Ghana at that time. TB never was an independent organization and was shifted from one ministry to another, advocating for establishing its own ministry, until finally it became an “enforcing hand” of the Ghana Ministry of Tourism (founded in 1994).

Over the years the TB's work has evolved and became more focused on:

- Advising the visitors on sites of tourist attraction, accommodation and catering
- Developing and promoting new sites of tourist attraction
- Research and statistics on tourism and related activities
- Granting operational licenses (and annually renewing them) for accommodation and catering enterprises, night clubs and travel agencies
- Quality assurance (inspections of the above-mentioned establishments and sites of attraction)

### **Legislative Instrument (LI) 1205:**

This law was passed in 1979 to provide a legal framework for TB's work. It endows the TB with powers to register, supervise and regulate the practices and standards of the accommodation and catering enterprises in Ghana. TB is also empowered to close until further notice the premises of an enterprise and fine/imprison an owner, where the standards do not meet the minimal criteria, declared in LI 1205.

According to that legislation TB has the right and responsibility to supervise “any commercial enterprise which provides food or refreshment for consumption on the premises”, i.e. from restaurants to chop bars (traditional food sellers, qualified by the TB as “informal catering establishments”) and even street food vendors. With regard to this fact LI 1205 specifies:

- That all catering enterprises need to be registered and licensed (license renewed each consecutive year) by the TB, or otherwise to be considered illegal and liable for prosecution
- The rights and responsibilities of the TB inspectors, and the right to appeal against their decisions
- The minimum requirements to the staff members of an enterprise and standards of the facilities needed to prepare, serve and store the food, including kitchen and dining area facilities; facilities for customers and staff; garbage disposal; water supply; staff medical examination (every half a year and photocopies submitted to the TB); staff uniforms; etc.

## By Viktor Poluektovas, MSc Public Health

- Some of the food hygiene aspects that must be observed by the catering enterprises: clean and tidy premises; “no food exposed to the risk of contamination”; appropriate hand washing facilities for staff and customers with “soap, nail-brushes and clean towels”.

### **Registration and licensing of catering enterprises:**

In order to obtain an operational license from the TB any prospective catering establishment must get itself registered first with the TB (15.000 cedis). Registration forms have to be returned to the TB together with copies of mandatory development permits from 9 other official institutions, e.g. Planning Department, Ministry of Health, Police, Fire Service, etc.

After having been registered and development works completed, the venture must apply to TB in writing for a license. To issue one, TB has to do an inspection of the applicant’s new business premises and to send their report along with other development permits to the TB headquarters in Accra. The headquarters will decide what grade to grant to the new venture (grade 1 – 3 if it is a restaurant) and will send a license back to the regional TB branch, where the owner/s of the venture will have to collect it from and pay another fee (from 850.000 cedis to 350.000 depending on the grade granted, and 300.000 for a chop bar license).

As license is renewed every year (35.000 cedis fee is applicable), TB has to do “annual” inspection of all registered catering enterprises (done in November - December each year) and send reports to the headquarters with “recommendations” regarding further license renewal and new grade. So far out of the 76 registered restaurants in Kumasi and Ashanti region only 56 have had their licenses reissued this year. At the same time less than 100 chop bars out of 300 registered had a valid operational license. Also, Kumasi TB does not register or issue license to any smaller catering enterprises like street food vendors, saying that this is a “duty” of the KMA (Kumasi Metropolitan Assembly) with which they have an agreement on that matter (i.e. street food vendors to be licensed and supervised only by the KMA in order to avoid overlapping and overstretching of the resources).

### **Types of Inspection:**

Apart from the above-mentioned “annual” inspections, when restaurant managers are informed by the TB about the forthcoming visit, TB also conducts “midyear” inspections of all registered restaurants in June – July each year. The purpose of these inspections is to keep monitoring the standards of work in the restaurants before the “annual” ones. This time no reports are sent to the headquarters in Accra, but the restaurant managers are also not informed about the inspections beforehand. Just like for “annual” checks, when additional 3 cars (to make up 4 mobile inspection teams: 2 inspectors in each) and manpower (usually National Service workers) are hired to assist the regular TB staff, there are also 4 lecturers, teaching “catering” subjects at Senior Secondary School, hired for every “midyear” inspections (the same lecturers each year, who get 80.000 cedis each per diem during the period of inspections). These lectures accompany inspection teams to make them more “professional”, as out of 8 inspectors in Kumasi TB there are none with educational background or experience in catering business (however, all new employees in TB have to attend a 2 weeks induction course at headquarters in Accra, which also includes a part on how to conduct an inspection of an accommodation or catering enterprise).

Although there are no “midyear” checks of the chop bars due to “overstretched resources”, TB “does its best” to conduct at least “annual” ones.

There are also as-many-as-resources-allow “spot” checks of the restaurants between “annual” and “midyear” inspections. These checks are less formal than inspections and have no regular schedule, e.g. one can be done when a director of Kumasi TB goes to/from home.

The TB inspectors use a special inspection form when doing their examination of the catering enterprises. There are different inspection forms for “annual” and “midyear” check-ups as well as for restaurant and chop bar inspections (TB does not apply any formal documentation procedures to “spot” checks though). However all these inspection forms that consist of statements with “tick-in-the-box” options are based on LI 1205 major principles. The contents of those different forms look the same, i.e. questions are put in a logical sequence and divided into parts, e.g. General Information,



## By Viktor Poluektovas, MSc Public Health

Dining Area, Kitchen, Toilets, Storage, etc. An inspector has to tick whether the listed facilities in these sections are available or not, and if available - then to put a further tick indicating suitability or unacceptability of the facility/service reflecting “comfort”.

When TB inspectors visit a catering enterprise they ask first to see a manager or his deputy to explain him/her a purpose of the visit and ask them to show the premises and an operational license. After observations the inspectors fill in an inspection form by ticking the boxes and asking the manager additional questions, e.g. to provide detailed information about all of the staff members (position, educational background, health certificates, gender, age, salary). In the end, the inspectors summarize the findings on the areas where the state of care is unsatisfactory/unacceptable and give a copy of it to the manager while explaining to him/her the reasons they think like this. Then the assessors tell the manager a date of their next visit (usually in one month, if there are deficiencies) and ask him/her to improve the insufficient facility/service by then.

### Inspections and Food Hygiene:

Despite the fact that importance of food hygiene and food safety is clearly envisaged in LI 1205 (e.g. “there shall be provided a functional kitchen, which shall be clean and hygienic as well as a dining room”; “no catering enterprise shall offer for sale any food that is unfit for human consumption”; “no food shall be exposed to the risk of contamination”; etc.), some of these essential principles of food hygiene are not adequately reflected or absent in the inspection forms (e.g. if soap and clean towels are present in the toilets; if separate chopping boards are used for different products; if the temperature in the fridges is adequate; if hand washing facilities are available in the kitchens; etc.). Although the inspection forms are very comprehensive and “user-friendly” they lack consistency when inquiring into food hygiene and food safety. Instead, there is a single vague “state of hygiene in the kitchen”, with possible answers of: “available/not available” and “suitable/unacceptable”.

This combination of inspection forms with professionally inappropriate inspectors, who often have to guess what is “suitable/unacceptable” in the kitchen facilities or restaurant’s services can produce a potentially invalid account of the assessment of food hygiene in any of the catering enterprises.

During the observation of the inspection procedures in two restaurants (1<sup>st</sup> Grade and 2<sup>nd</sup> Grade; there are six 1<sup>st</sup> grade restaurants in Kumasi in total) conducted by two TB inspectors (one was a language teacher by education, and another one – a statistician who graduated from a Polytechnic) and a TB car driver (who also took a very active part in the assessments by sharing his view with inspectors on the state of affairs in those restaurants) it was obvious that most of their attention was focused on aesthetic aspects of the restaurants’ facilities. The inspectors were thoroughly examining the condition of furniture; tidiness and cleanness of the kitchen and dining area; clean uniforms of staff members; labels and signs on the doors; menu prices and expiry date on the extinguishers; presence of flies; etc. They also asked the management to bring them four dinners (for 2 inspectors, a driver and an observer) “to taste the quality of food”. Inspectors criticized the manager for not framing the operational license and putting it on the wall, and that members of staff did not have ID badges on their chests. Meanwhile the examiners themselves did not have their ID cards to show if requested and said that nobody had ever asked them to do so. At the same time they never questioned other important aspects of restaurants’ work particularly with regard to food hygiene:

- Hand washing facilities for staff
- Toilet facilities for staff
- Vermin controls in place
- Safe cooking practices (appropriately washed lettuce, fresh ingredients, etc.)
- Source of water and if it was running
- Separation of chopping boards
- Appropriate garbage storage containers and disposal
- Cooked and raw foodstuffs kept on the floor, etc.

In fact, the inspectors even loosely observed the protocol of the inspection per se and did not check half of what they had to check according to the inspection form, e.g. only one kitchen out of three in a restaurant; storage area; staff area; only one or no toilets at all; if the staff had their health certificates;

## By Viktor Poluektovas, MSc Public Health

etc. They filled in the forms after the observation of the premises, at times relying purely on their “assumptions and first impression” to tick in the box of what they had not observed.

The similar results of the examination “in aesthetic manner” were observed during another inspection – of the chop bars. As it was the observer’s request, this inspection was not planned and inspectors decided to do it in a “Chop Bar of the Year” winner – a very popular and immaculately clean place. Again, for example, the inspectors did not check the toilet facilities, which were missing: there was only one unisex urinal for both staff members and customers, and the owner could not say where exactly a customer or employee should run if s/he had a sudden onset of diarrhea.

As the inspectors were going to finish their assessment round with that “showcase” chop bar, they were challenged by the observer to inspect the first random chop bar to come across their way. That idea was met very reluctantly by the inspectors, who tried to persuade the observer, saying that “many chop bars are very dirty and people there are very rough”. However, in the first chop bar (very small and old, that even did not have a sign on it) the owner did not pay much attention to them and asked them to wait, as she was busy selling food. While waiting, the inspectors even decided initially to leave that place quietly as they felt abandoned there. But soon (after brisk sweeping and tidying up the premises) the owner’s 16 years old daughter invited the inspectors to look around. The chop bar was indeed very small and dark, with the crammed storage room, kitchen under open sky and open sewage passing through it. It cooked only one type of food (banku with soup), did not have an operational license and the kitchen staff (with a few exceptions) never attended even a primary school. Again, as the inspectors were in a hurry this time, they did not check all of the facilities listed in their inspection form (e.g. toilets). They filled it in at times by “intuition” or just left some sections blank.

Not surprisingly, the inspectors themselves ignored the hand washing facility provided for the customers (with soap), as when they “tasted” banku, kindly offered by the owner, they only rinsed their hands in a bowl of water before eating their food in a traditional way (i.e. with fingers).

### **Informal interviews with TB staff:**

The inspectors of the catering enterprises admitted that there is a large number of catering ventures that is out of their reach. These establishments, according to them, do not get registered or licensed with the TB due to a number of reasons:

- They do not know they must do it to comply with the law
- They intentionally do not want to do it, as it takes a lot of time and money to do it, and in the end one has to deal with inspectors and pay taxes
- They do not qualify to get a license and do not have enough funds to qualify

On the other hand TB has its own reasons not to be harsh with the defiant catering establishments, even though it has enough authority to fine, close down, prosecute and imprison the owners and the management.

First of all the TB lacks enough funds and is understaffed to vigorously search for the unregistered ventures or take them to the court. Their main tool in dealing with illegal enterprises is the power of sound reasoning and persuasion to get them registered for their own sake.

Secondly, in a time when Ghana experiences a tourist boom, TB is not there “to antagonize their relationship with hotels and restaurants, but to assist them so that their numbers grow”. Therefore, TB never fines or takes to the court an enterprise that does not comply with its advice or recommendations. And nobody in the TB could remember a case when a venture was closed down at all by them. TB usually gives a warning, and if it does not work – they set up a joint meeting with the owners and management to solve the problem.

Thirdly, as TB, KMA and Food and Drugs Board (FDB) have overlapping responsibilities in the catering sector (e.g. all three are supposed by law to register and issue licenses to catering enterprises, and also to inspect them) that brings a lot of confusion into their work, not to mention the caterers. At times they have to sit down together and agree how to divide their work between themselves to be more effective and efficient (e.g. KMA working with street food vendors, and TB with restaurants). The TB employees understand the position of those enterprises, which are left confused

## By Viktor Poluektovas, MSc Public Health

and do not want to register with them. And they admit that the Government and Parliament need to do something about those issues too.

The TB staff admits that the main focus of their work is “not microbiological safety of food or hygiene” for which they “do not even have appropriate staff”, but “ensuring appropriate facilities for the tourists: decent hotels and restaurants that meet minimum criteria to be operational”. This is why the preference is given to restaurants as this is where tourists usually go to eat. Meanwhile, the TB employees agree, that the issue of supervising and inspecting the chop bars remains unresolved. Neither TB nor KMA with FDB have capacity to take full responsibility of this “massive” segment of the catering market in Kumasi, although all three named organizations are formally in charge of it. TB estimates there are well over 600 chop bars in Kumasi alone and simply to ignore this traditionally important source of food preparation and distribution is not a way out.

Looking back over the years of the TB’s work, the inspectors recognize that there is a continuing improvement in the facilities of the catering enterprises, thanks to the TB’s inspections and educational workshops that they organize for restaurant managers, owners and staff members. Currently the TB is mainly focused on improving the servicing standards of the hotel and restaurant personnel. However, they admit, that the standards of food hygiene and food safety in the catering enterprises have not significantly changed over the time.

### **Ghana Restaurant Association (GRA) and educational workshops:**

Kumasi TB has a good work relation with the local branch of GRA, which brings together over 50 restaurant proprietors based in Ashanti region. This relation is mutually beneficial as GRA disseminates to its members any important messages from the TB, e.g. about forthcoming educational workshops that TB duly organizes every three months for restaurant and hotel staff on different aspects of their work (e.g. management, service, hygiene, etc.). These workshops usually last one week and lecturers come from the TB’s headquarters in Accra. TB sends invitations to attend a workshop to all registered restaurants through the GRA’s network. However, a 200.000 cedis participation fee per person and a succeeding certificate of participation do not make many restaurant owners interested in attending these workshops.

On the other hand, according to the chairman of the GRA Ashanti region, their association is not as active as it used to be before and is gradually becoming defunct. He said that “restaurant owners are a middle income group of people at best” and their expectations were high when establishing the association with the aim “to unite their voices in order to get better concessions from the government in the area of tourism, e.g. free training courses, tax relief, free equipment, etc.” However, the government has never given any incentives to them and the association started to disintegrate slowly, when the members realized they were left to their own devices and then “personal interests prevailed over the common cause”. Even though the association members rarely convene (last meeting was organized 6 months ago with 8 out of 50 members present) they still can get together if “the matter is urgent”.

### **Traditional Caterers’ Association (TCA), also known as Chop Bar Association:**

Although the observer appropriately introduced himself to the chairman and the advisor of the TCA in Kumasi, they categorically refused to talk about the association (even to say how many members it had) on the ground that “the secretary of the association was not there to take the minutes of a conversation”. At the same time they said the secretary was “on indefinite leave”, and added: “all like you, Americans, Holland, come here to ask questions and we do not say anything”. They also refused to give the secretary’s phone number and ignored the observer every time he came along trying to talk to them.

However, the TB workers provided the observer with some information about the TCA. According to them, it was established in 1996 with the TB’s backing to “put all existing chop bars under one association for their own benefit, for example, to share the knowledge about cleaning”. But, apparently, the chop bars did not see many “benefits” in joining the new association and hesitated to do so, however hard the TB was trying to persuade them. Apart from the lack of enthusiasm to pay

## By Viktor Poluektovas, MSc Public Health

“membership fees”, mentioned by the TB staff, there are probably other reasons (mentioned in the previous chapters) the chop bars do not want to join the association or be registered with the TB.

TB needs the TCA’s assistance when they organize training workshops for the chop bars on hygiene, quality of service, etc. or passing an important message to them. According to the TB staff, there are no more than 40 members registered in TCA in Ashanti region, and merely 20 attend the workshops. Yet, the last time TB contacted the TCA was in 2005. They also mentioned that the TB tried to get Maggi to sponsor those workshops to make them look more attractive to the chop bars.

In order to obtain further information about the TCA’s activities in Kumasi the observer visited randomly chosen seven chop bars in central Kumasi, including “The Chop Bar of the Year” winner and asked the owners/head managers about their relationships with the TCA.

Not surprisingly, three of the seven chop bar managers never heard about the association, while the position of the rest enterprises towards the TCA was pessimistic, if not negative. The main point of contention was unwillingness of the TCA to support its members in difficult circumstances whether it was an administrative matter with the KMA or just a financial hardship. The members complained that the association “calls the regular meetings” (2 – 3 times a month) “just to collect the money for funerals or weddings” that occur in the members’ families and “do not help us at all” in any other way. The managers also mentioned their deep distrust with the chairman of the TCA, who appointed her family members to run the TCA and never provided an account on how the registration and membership fees were used. Moreover, the members of the association considered it “disgraceful” that the chairman’s own chop bar (located next to the TCA office) had problems with the KMA on several occasions due to the chairman’s own negligent attitude. The owner of the “Chop Bar of the Year” added that when her business won that competition, the Tourist Board with Food and Drugs Board left the prize in the TCA office for collection, but the chairman of the association never gave it to her on the ground that her enterprise was not a member of the TCA.

The disgruntled members tried on several occasions to change the chairman of the TCA and make it “helpful to the members”. However they did not succeed and the other members started abandoning the TCA. Currently there are attempts to establish a “parallel” association that would be more effective in responding to the needs of the chop bars in Kumasi. However, as the managers’ have lost their faith and confidence in such associations, it may take a long time to create a new one.

### **Conclusion:**

According to the legislation the TB has the right and responsibility to carry out the inspections of the catering enterprises, including the food hygiene examinations. However, while its inspection forms are comprehensive they still lack consistency when inquiring into food hygiene and food safety aspects and usually turn the restaurant’s inspection into a mere aesthetic observation of the facilities.

On the other hand, the TB employees also admit that the microbiological safety of food and the kitchen’s hygiene are not the priorities of their work and even not the area of their expertise at all. Moreover, due to rather political and fiscal reasons the TB is not prepared to apply any kind of penalties in order to push the catering enterprises to comply with the food hygiene standards.

This combination of inspection forms with professionally inappropriate inspectors can produce a potentially invalid account of the assessment of food hygiene and food safety in any of the catering enterprises.

Moreover, the TB constantly experiences the shortage of the manpower and financial support from the government that makes its human and monetary resources extremely overstretched and the office incapable to properly exercise its duties in the field. The hygienic situation of the chop bars bears the brunt of these shortages as the TB usually gives the preference to the restaurant inspection.

At the same time the TB has a good liaison with the Ghana Restaurant Association and the Ghana Traditional Caterers’ Association in order to pass an important message from the TB across the restaurants and chop bars or to promote a forthcoming educational workshop, at times about food hygiene. Yet, these educational workshops receive a low turnover from the restaurants or chop bars due to the internal disputes and lack of sponsorship/support from the government or local authorities.

## **An informal interview with a lecturer who teaches catering subjects to the students in a private hospitality institute in Kumasi, Ghana**

**10<sup>th</sup> April, 2006 (17:00 – 17:30)**

### **Setting**

The respondent agreed to meet in the restaurant that belonged to her employer. The interview took place in a quite atmosphere as it was evening time and there were few customers present inside. The respondent agreed that the interviewer was taking some notes down in the notepad. It was explained to the respondent that the purpose of the interview was to find out what knowledge the prospective kitchen workers/managers received when studying catering in the Institute where she taught.

### **Personal Information**

A 30 years old female, born and raised in the coastal region of the country. Coming from a family with catering traditions, she studied Home Economics in Senior Secondary School (3 years) and later graduated with diploma in catering from the Polytechnic (2 years). She had worked in a number of hotels before she started teaching catering in the SSS in 2002. In 2004, after 2 years of teaching, the respondent obtained Hotel Management Certificate and moved to work back to the hotel, where she met her future employer, who, after reading her CV, offered her to continue teaching the catering in his new private hospitality institute. She accepted the offer and started her work there in Oct. 2005.

### **Teaching Catering in the Private Institute**

Although the Institute opened 6 months ago it attracted a lot of attention and publicity (and therefore potential students) as the owners of it were very successful catering entrepreneurs with good personal connections.

She is the only lecturer who teaches catering in the Institute and the only female lecturer as well. Other 13 lecturers (teaching different subjects, like marketing, etc.) were all males. The respondent said that sometimes her colleagues tried to “intimidate” her when she had initiatives, as “Ashanti men saw women as inferior to them”. However, she said, she was not afraid to confront them.

The respondent said that a catering course in this Institute (one year long), in her opinion, could be equally compared to the same course in the Polytechnic (which takes 2 years to complete) with regard to the subjects she taught (certificate of graduation from a SSS was a requirement to join the Institute). At the same time she acknowledged that there was no kitchen yet on the ground for students to practice their skills. Nevertheless the number of students on her course increased from 8 in Sept. 2005 to 70 in March 2006 and kept growing. She mentioned that soon she would not cope alone with the number of students.

At the same time, her personal ambition was to eventually set up her own school of “cake craft”, as she thought there was lack of knowledge in this particular subject and very few professionals working in that field (baking cakes for different occasions). However, she added that this subject was not on the curriculum in the Institute, as “students wouldn’t be able to pay the full cost of the course then” (students paid 500.000 cedis per semester regardless of the course, i.e. 1mln. cedis for a full study year).

## By Viktor Poluektovas, MSc Public Health

### Taught Subjects

The respondent said that a lecturer who had taught this course and had left before she came had set up the main curriculum for the catering course. But she, in her turn, added “quality” to it: as she explained, she expanded the curriculum by adding some new features and removing outdated information. She also mentioned that the curriculum they taught was “basic and fundamental for any catering establishment”, and if she wanted to add or amend anything to it, she would have to receive permission from the director of the Institute.

The curriculum of the theoretical part of the study (1 semester) comprised 6 subjects (as described by the lecturer):

- **Safety and First Aid** – an essential knowledge of accident prevention and first aid if an accident happened (cuts, burns, fire on premises, etc.)
- **Nutrition** – knowledge about food preparation while preserving the nutrients; information about proteins, carbohydrates, fats, etc.
- **Commodities and Purchasing** – the knowledge about main cooking ingredients, how to buy/store them and check their freshness, etc.
- **Cooking Theory** – knowledge how to cook the food, to make it eatable, tasty and healthy; incl. food preservation.
- **Hygiene** – knowledge how to keep the premises clean, incl. personal hygiene (hands washing, uniform wearing, etc); storage of cooked food and food handling.
- **Menu Planning** – knowledge about what kind of dishes and what prices to offer in the menu with regard to the different circumstances.

The first graduation of the students from the catering course will take place in August 2006. So far they have finished their theoretical part of the study and moved to the practical one, i.e. got attached to the different catering establishments (four of them did their practical attachment in the restaurant where interview was) to acquire hands-on experience of work in the kitchen. Eventually they will be assessed by the management of those establishments. And before the graduation they will hold their final exams. The lecturer was very positive about her students and their knowledge in the catering field. She said they would find employment “quick”.

When asked what makes an upper class restaurant like where we were sitting so popular among people, she promptly gave two answers:

1. Publicity
2. Professional staff (i.e. different cook for different type of meals, e.g. a cook responsible for Ghanaian dishes and another one for rice dishes only, etc.)

When asked why so many of the kitchen staff did not wash hands before they handled the food, the respondent answered that it was because they “did not have knowledge about bacteria and diseases” related to poor hands hygiene.

In general, the respondent seemed to be very knowledgeable and well informed about different aspects of catering. Her answers were short, concise and assertive.

## **Informal interviews with the cooks from the restaurants where food hygiene observations were done, Kumasi, Ghana,**

### **Interview 1, 28<sup>th</sup> March, 2006 (14:00 – 15:00)**

#### **Setting**

The interview was taken in the food-serving outlet (former kitchen) at one of the student's halls of KNUST during the quite time of the day. The respondents usually cooked the food in another hall's kitchen in the morning with a bigger team of other cooks and then brought it down to the outlet for sale. Therefore, the ready-made food (jollof and fried rice, banku with okro stew, deep fried chicken thighs and salad with lettuce and cabbage, fried plantain and bean stew) was brought there in "ice chests" to keep it warm longer and the outlet opened for the business at 12:00 midday. Students living in this hall were the regular customers, although some occasional outsiders would also come along for food (e.g. taxi drivers). The cooks usually finished their work in that outlet at 17:00, when they cleaned the premises, collected the remaining food and returned to the main kitchen.

That was a good opportunity for an observer to take interviews from those two cooks in a quite, informal and confidential atmosphere as there were no other members of staff or management working in that outlet. However the interviewer did not use any Dictaphone or took any field notes at the time in order not to raise any suspicions from their side.

#### **Personal information**

Both cooks were unmarried females in their early 20s and without any children. Both passed a vocational course in catering (3 years long) and for one of them that was the first employment at all, whilst for another one – the second (she used to work in a hotel's kitchen where cook-to-order service was practiced, but she left as "the job was boring", while she needed more "experience"). Both cooks had been in their current posts for 1.5 years. They both liked the work in the restaurant and the outlet, as it "kept them busy", "gave good experience" and the proprietor was "not strict" and often "gave to them advice on personal problems". The only thing that upset them was the salary (200.000 cedis a month), which they considered as low. Otherwise, they were happy with their employment.

#### **Lettuce**

The cooks said that they used lettuce at home for fresh salads quite often. When asked about the properties that lettuce held for them they answered that it had "vitamins" and was therefore "good for health". They explained that before consumption the lettuce must be washed in tap water with vinegar (1-2 full bottle's caps for a full bowl of water). When asked if salt could be used for that they admitted that vinegar was better anyway (they personally used vinegar which can be bought for 11.000 cedis), but salt was also appropriate to use (a full table spoon for a bowl of water). On a question why they did it, the cooks explained that it was important to do as there were "germs", "dirty particles" and "animals" that needed to be washed away from the lettuce. When asked how they thought those "germs" got on lettuce, they said, that this was because of "water, where lettuce grew". But they were not able to explain this matter in more details. When asked what would happen to a person who ate the lettuce unwashed, they mentioned without hesitation "stomach pains" and "running stomach". However when asked if they personally knew somebody who experienced those symptoms (including themselves), i.e. the consequences of eating unwashed lettuce, the answer was negative.

## By Viktor Poluektovas, MSc Public Health

### Food poisoning

When asked to tell what in their opinion food poisoning was, they mentioned that this happened when a person got a “running stomach” because of eating “spoilt food”. They gave some examples when this happened:

- eating “spoilt food, that was not kept in a fridge”
- spoilt food was mixed up with fresh food and eaten
- “flies” contaminated the food

When asked why flies could contaminate the food, they answered that flies “could sit anywhere and then on the food, e.g. from a toilet to a plate”. When asked what other “animals” could cause food contamination, they mentioned “cockroaches” and “long animals with many legs”, and gave the same reasons as for flies. On a question if mice or rats could be a food contamination cause, they initially did not know what to say, but then said that “yes, they could”, as mice could “bring the dirt on their feet to the food”. When asked, if they accidentally spotted those pests in a kitchen of a restaurant where they came to eat as customers, would they possibly continue eating there – their answer was positive, saying that they would say what they saw to the cooks, who worked there (this answer, however might be not sincere as they had all the pests mentioned above in the kitchen where they cooked).

On a question if they had ever experienced food poisoning, one of the cooks said that this happened to her when she ate “spoilt beans” at home. She said that she did not “taste it properly”, although the beans stayed overnight out of the fridge – this was, in her opinion, what caused the poisoning. When asked if that was the way they distinguished the spoilt food from the good, they agreed, saying that they “smell and taste it” before further use in food preparation or consumption. They added: “spoilt food does not smell or taste nice”. When asked how they decided whether to eat or not in a particular café or restaurant, they said it was important for them to “see the kitchen first”. According to them, if they saw that cooked food was left uncovered or a cook was “scratching her hair” and then taking the food with the same hand – then they would not eat there.

The respondents also added that the Ghanaians would never tell anybody if they had a diarrhea, as the news would spread quickly and people would start gossiping that the person who had it was “dirty”. According to them, having an upset stomach is perceived in Ghanaian society as something utterly negative and deserving a condemnation from people who know about that. This is the reason this topic is believed to be a “taboo” one.

### Personal Hygiene

Both women were asked to describe what a “hygienic” cook meant to them. They named:

- Clean work dress, including a hat for the hair
- Cut nails (they said it was very important for them in order to avoid the dirt collecting under the nails, which could cause food contamination)
- Soap-washed hands. They said they washed hands many times during the day, especially before handling the food (e.g. after “taking charcoal”)

Finally, when asked how they learned about everything they said – they answered: “our teacher in the school taught us this”, i.e. in vocational school with catering course. When asked if they had an imaginary million dollars to spend on the kitchen where they cooked the food, then how they would spend them, they said they would replace the charcoal stoves with the gas ones, and would buy more “cooking machines” for the kitchen. However they did not mention the kitchen renovation, which was in a very neglected condition.



## Interview 2, 30<sup>th</sup> March 2006 (14:00 – 14:15)

### Setting

The interview was taken in the restaurant at one of the students' halls of KNUST during the quiet time of the day. The restaurant produced all major Ghanaian staple food dishes and also dishes with rice and fried chicken. According to the students that were randomly stopped and asked in the street about their favorite place to eat on campus - this restaurant was among the most popular ones.

As a good working relationship was established between an observer and this particular cook, it was decided to ask her some of the "sensitive" questions in a short period of time in order not to undermine her status in the eyes of her colleagues and employer, as they were on the premises at the same time. Due to those circumstances the interviewer did not use any Dictaphone or took any field notes at the time in order not to raise any suspicions.

### Personal information

A cook was a female in her 20<sup>th</sup> and of Muslim faith. She did not have any children and lived in the restaurant's quarters (she slept in the dining area, where the customers were sitting during day time). The respondent had only a JSS (Junior Secondary School) education and training in dressmaking. Due to personal circumstances she ended up living in the restaurant 2 years ago. Without formal catering education, she, however, established herself in the management's eyes and among colleagues as a hardworking, honest and respectable person. She started working here doing washing-up, and gradually was promoted to the "cook's" rank in the kitchen. She said that 2 years ago she did not know how to cook, but she was very eager to learn and always volunteered to do any cooking if there was an opportunity.

### Food poisoning

In the very beginning of the interview the cook mentioned that she did not feel very well that day because of the stomach pain. She said that the cause might have been in the maize flour porridge that she had bought from a street food vendor the same day early in the morning. However, she added that the major reason her stomach was upset - was "her body", but not the porridge. When asked to explain this, she said that in general she liked that type of porridge and ate it now and then, but sometimes "her body was allergic to it" with the following pain in the stomach. When asked if possibly the spoiled porridge made her stomach upset, she said she did not know if that was possible, but she also added that she threw half of her porridge away that day as "it did not taste nice". When asked if she would go and tell the porridge seller that the porridge wasn't good, she said she wouldn't. When asked why, she explained that in Africa people "did not do it like this because they were afraid to be assaulted by a seller, who would never agree with that". In her opinion, the people usually "stopped buying the food from that seller and the business would close down" due to the lack of customers.

When asked if the restaurant she worked in had ever had any cases with customers coming back and complaining about the food they had eaten, her answer was negative. And as far as she knew - nobody ever had a stomach problem due to the food they cooked in that restaurant. When asked to describe how she perceived the spoiled food, the cook used a lot of gestures pointing with her palm at her nose, mouth and stomach to help her explain how the "scent was bad" when she reheated spoiled food, and "the taste was bad too - one would not be able to eat it". She also added that eating such food "could give you ill stomach".

### Personal hygiene

When asked where they kept soap in the kitchen she said that only at the washing-up area and in the dining area for customers' use. When asked where the soap for staff was she looked very confused and said that apart from the washing-up area they did not have any soap in the kitchen. She explained that they used to have it but "staff used it very quickly to do their cloth washing" or it would just disappear. In her opinion, this fact discouraged the management to buy more soap. She also

## **By Viktor Poluektovas, MSc Public Health**

admitted that most of the cooking staff used only a tap water to wash their hands.

### Environmental health inspections

When asked if Tourist Board happened to come with inspection to the restaurant at some time in the past, she said that the last one was very recently and “two men came on Saturday morning, and started looking everywhere”. The respondent said that those officers made a list of what they did not like about the restaurant (e.g. a dirty floor) and then warned the proprietor that they could close the restaurant down. When asked if she personally agreed with those officers,

## **“Don Kirk” vegetable wholesale market observations and interviews with middle women**

**23<sup>rd</sup> March, 2006 (8a.m. – 9.30 a.m.)**

### Interview setting

It is part of the central market in Kumasi. Starts 5-6 a.m. till 10-12a.m. three days a week (Monday, Thursday, Friday). No obvious water sources nearby for vegetable washing. Usual customers: market sellers, housewives. The news is passed quickly from one seller to another (e.g. that “obruni” came asking about lettuce).

Informal interview with 3 middle women (note, the observer was talking to all three women sitting close nearby, but only the ones who were not busy would answer the questions).

### Marital status

All three were married, two of them to the farmers who grew lettuce. They made it clear straight away that doing this type of business with husband-farmer was very convenient as:

1. easier to negotiate the price or no price negotiations with a husband
2. easier to harvest, store and deliver the vegetables (family assistance)

Although they said that in this case a middle woman would usually bring the money back to her husband, they also mentioned that some couples of this type preferred to separate their businesses and looked for other business partners (buy lettuce from another farm or sell it to another middle woman) as they found it hard to negotiate the price within a family. One of the women said that she did the “real negotiations” with her husband, but when asked if this would possibly involve domestic issues in negotiation disputes, she laughed and refused to answer saying it was a too personal question. When asked who usually won in price negotiations (a middle woman or a farmer) all were unanimous that the woman would win as “farmers ask too much money for it” and “if a farmer does not sell the lettuce - it will spoil”.

### Trade

They have been in lettuce selling business for quite some time (longest one - 5 years). All considered their business successful (i.e. they managed to sell all the lettuce they got from a farm). All firmly believed that regular customers (usually the market sellers) were the “backbone” of their business. When asked what in particular attracted a customer to a seller, they said not just the look of the lettuce was important but how well the seller treated the customer: smiles or to give some extra lettuce on the top.

According to them the trade goes up and down from time to time, but for the last two years the lettuce production, selling and number of customers has been growing. Therefore the price of the lettuce has reduced and these women do not want to buy more lettuce from the farmers than they usually do (afraid they won't be able to sell it as new middle women enter the business and the competition gets tough) – just enough to meet the demand from their regular customers. However they help each other to sell the lettuce, if somebody experiences difficulties in doing so.

### Lettuce

Lettuce is packed, kept and transported in big sacks. It is harvested at different sites around Kumasi including Genyasi and Karikari. Lettuce washing during the sale depends on the market day. If it is a market for visiting customers (on Thursdays) who take the lettuce to other parts of the country then the lettuce won't be washed, because it will lose its texture, colour and will look soggy after staying long time in a moist condition in a sack. The root of the lettuce is always kept uncut to make the leaves look fresh longer.

## By Viktor Poluektovas, MSc Public Health

They also added that lettuce that is going to be sold for local Kumasi population (these women also sell the lettuce on other markets as retail market sellers) is washed straight after the harvesting on the site (usually dug wells) or at home (pipe-borne water) and the next day is kept moist at all time to make it look attractive for potential customers.

Themselves they do not eat lettuce often, but if they do - they use it in stews and with rice. When asked how they wash it before consumption, they explained that they cut the root off, separate the leaves and wash them in a bowl with tap-water with "slight" amount of salt (their equivalent of teaspoon amount). When asked about the vinegar, they said it was too expensive for them to use. However, they said that the lettuce they sold here in the market (i.e. unwashed) was "dirty". According to them, they did not have any stomach problems, nor the members of their family. The same answer was given when asked about diarrhea or worms.

Questions that could be asked next time:

1. Their perception of "dirty" lettuce. What makes it "dirty"? Does it pose a threat to their health? What are the ways to avoid it?
2. Personal hygiene. Do they wash hands after handling the lettuce and before food consumption?
3. If they fall ill with symptoms of food poisoning (worms/diarrhea), what do they usually do? Their action plan? Would they blame somebody/ something?

## **Observations of green vegetable growing practices and informal interviews with the farmers who grow them at Karikari village farms, Kumasi, Ghana.**

**20<sup>th</sup> – 22<sup>nd</sup> March, 2006**

During the last day of 3-days stay at that farm 4 informal interviews were taken and one FGD took place with 4 farmers on lettuce growing/washing/consuming practices, family member health and personal hygiene. One of the farmers, who participated in the FGD and 2 other interviews, was also a translator. Therefore, a translator's bias was also considered possible. Mostly field notes were used, as no recording of the interviews was done.

### **FGD (22 March, 13:00 – 14:00)**

The FGD took place when 3 other farmers had a midday break for lunch and rest at one of the farms. The purpose of interviewer's visit was explained to them and a promise given that all the information they provided would be confidential. Two participants were married and said that their wives (one of whom was a lettuce selling middle woman) usually brought home the money and gave it to their husbands. They also made it clear that they were the heads of the family who ultimately decided the way the money would be spent.

### Lettuce

All the respondents said that they consumed lettuce and cabbage they grew regularly (at least 3 times a week) together with their family members. Two unmarried farmers cooked the food themselves and the married ones left this task for their wives, although they also cooked when the wives were working away from home. When asked what qualities the lettuce held for them, the answers were that it "produce energy inside the body", and they particularly preferred to eat it during hot weather conditions as they "feel cool" after. All of them also quoted the Bible's Isaiah 12:47 that human beings should "take seed and leaves for treatment". This phrase seemed to be popular among them as they were nodding and laughing after quoting it. Most popular dishes containing lettuce were: rice mixed with lettuce, soups and stews.

### Food safety knowledge

Everybody said that lettuce had to be washed before consumption. When asked for what reason they did it, one of the respondents (that seemed to be the most informed one) took the lead and answered for everybody, while the others were nodding, that when unwashed lettuce was eaten "worm eggs start accumulating in the intestines" because there were "small germs that we can not see" on the lettuce. When asked how the "germs" could possibly appear on the lettuce, they seemed to be lost, with only one suggestion that it was "bugs that eat cabbage and lettuce" that left the "germs" on it. They confidently refuted the idea that water from their dug wells might have caused these problems. The idea of germs coming with water seemed to be unbelievable to them, as they insisted that their wells were clean. Besides, they argued, the water source could not be a cause, as "the water falls down from the watercan on the lettuce", so no "germs could stay on it". When the observer described to them an imaginary situation when during the storm the water from the gutter got mixed with their well water, they agreed that this was very possible, but argued that "no problems can be caused by the mixed water" as the water from the gutter would simply "flow over" and the well would be clean again. However they readily agreed that poultry manure could be the cause of the lettuce and cabbage pollution with "germs", as they considered it "dirty".

When asked what might happen to a person who ate the lettuce unwashed, they concluded that such person "in one, two weeks time" might "lose taste for food", "get worms in intestines" and "obtain

## By Viktor Poluektovas, MSc Public Health

diarrhea". One of the respondents recalled that very recently a friend of his had washed lettuce in a dug well and had eaten it raw like this. Although he made an attempt to "stop him", he added.

They described to the observer that in order to wash the lettuce they separated the leaves and cut the root off, then they put the leaves in a bowl with tap water and added some salt ("tea spoon" they said) and washed it in it. They were confident in saying that the other vegetables would be washed in the same water, as the lettuce should not be treated differently from the other vegetables. When asked what they knew about the qualities of vinegar, they said that it "kills germs" and could be used to wash vegetables, although they did not do it, as vinegar was expensive to them. The respondents usually prepared the amount of lettuce they would consume the same day, without leaving anything for "tomorrow".

Also, three farmers admitted that when they bought food from a street vendor they never took the lettuce salad from them. Another farmer said that he took the salad, but if he saw that the salad was unprotected (not covered with a cloth) he would have never bought it.

Their main method of distinguishing a spoilt salad, containing lettuce, from the fresh one was "if it looks fresh" and "tastes salty" (i.e. was washed with salty water).

When asked for how many days they did not water the lettuce before selling it, the answers ranged from 1 week, during the rainy season, to 2 days, during the dry season. The reason they practice this is to "preserve" the lettuce and to "get rid of bugs".

### Health

All respondents, when asked about the episodes of stomach problems/watery stool/worm infections in their village's farming community (including themselves) admitted, after some hesitation and reluctance, that these problems existed, and even they also sometimes (once a month on average) got these problems. However they could not say if this was somehow related to the lettuce-eating practices. They believed that in most cases this happened because of malaria or typhoid. In case of any stomach problems, they said, they would go to a chemist's to "to buy tablets", and if the problem persisted – they would go straight to a hospital.

### Personal hygiene

All farmers mentioned that it was important to them to wash themselves (to take a shower) when they came home from the field as, they said, they "look dirty". For this purpose they used soap. They also mentioned that they did it because there was a family at home and they wanted to play with children and have dinner together with other family members. They said they would not do it until they took a shower after work.

When finally asked how they received this information about personal hygiene, lettuce, food safety, etc., they named among others:

- Extension officers from the Ministry of Agriculture (they come from time to time, sometimes once or twice a week, but other farmers admitted they had never seen them before)
- School education
- Radio/TV
- Advice from the fellow farmers

They also said that they usually passed this type of information to the other farmers as well.

### Interview 1 (22 March, 15:00 –15:20)

This farmer was of a Muslim faith and moved here from the North of Ghana. He lived with his extended family somewhat separately from the rest of the village, on the hill (where the interview took place). He seemed to be a polite and quiet man, although not really willing to get into the details when answering the interviewer's questions. According to him, he let his wife to keep the money she earned by selling vegetables and to decide on the domestic needs.

## By Viktor Poluektovas, MSc Public Health

### **Lettuce**

He saw the lettuce-farming as a good business opportunity (reliable source of income). At the same time his family also increased the lettuce consumption (about twice weekly, mostly with rice) since their move from the north, where it was more difficult and more costly to grow it. He said that lettuce consumption “gives him energy”.

### Food safety knowledge

He explained that his wife washed the lettuce leaves in a bowl of tap water with salt (tea spoon amount) before eating it. When asked about vinegar, he said they did not use it at all, as it was expensive and he did not know how to use it, although he said he knew the vinegar was used to wash lettuce. The farmer said they washed the lettuce in salty water in order to get rid of “animals” that lived on it. According to him, if somebody ate the lettuce without prior washing they could get “worms” and “eye problem” (he explained it as bad vision). Although, he said, neither he nor any other member of his family had ever had any stomach problems, including worms or diarrhea. When asked how he decided if the lettuce in a salad was safe to eat, the farmer explained that it depended on how fresh the lettuce looked, a taste of a lettuce (salty) and, if washed, the lettuce would “change the colour”. He said he could always say if the lettuce was good for eating. The respondent named the “bugs” as the reason that spoiled the lettuce. According to him, they came “from the ground”. The farmer gave a negative answer when asked if the lettuce should be treated differently than the other vegetables.

### **Personal hygiene**

The farmer said that he washed his hands with soap when he came home from the farm. And he took his shower only before he went to bed (i.e. he does not usually do it straight after he comes home from farm). He said it was important to him to take a shower as while working on the farm he touched the earth and manure, which he considered “dirty”. And when asked about how he got all this information he provided, he mentioned fellow farmers, radio and TV.

## **Interview 2 (22 March, 16:00-16:20)**

This particular farmer grew mostly cabbage and less lettuce. He seemed to be reluctant to participate in the interview, but then agreed. According to him, in their family, the money they earned belonged equally to a wife and a husband. And they both decided what to do with it.

### **Lettuce**

He liked lettuce and in their family they ate it quite often (4-5 times a week). The respondent also acknowledged that he could eat it raw, but usually - in a stew or with rice. Lettuce and cabbage consumption “made him strong”.

### Food safety knowledge

The farmer told that before they ate the lettuce or cabbage they washed it in a tap water. But he did not use salt or vinegar to wash it. He said he did not know why he should do it, as tap water was enough (in his opinion) to clean it from “dirt” (the way he described the earth). He admitted that he knew that some farmers used salt to wash the vegetables but he did not know why (he seemed to be not telling the truth and sounded a bit angered by this fact). When asked if he or any other member of his family had ever had any stomach problems, including diarrhea and worms, he was firmly negative. He said he treated all the vegetables including the lettuce the same – just washed them in a tap water.

### **Personal hygiene**

He always took a shower with soap when he came home before the dinner. It was important for him to wash off the earth from him and to look clean.

## By Viktor Poluektovas, MSc Public Health

Note: he shook the hand with the observer before the interview and passed only a wrist after it (as if his hand got dirty during the interview).

### **Interview 3, without translator (22 March, 11:00a.m. – 11:20a.m.)**

An interview took place when a respondent came to the farmers' hut for a rest. This 62 y. o. farmer had been in the field since primary school days. He had 3 daughters and 11 grandchildren. The respondent was very reluctant to speak and used an occasion twice to withdraw from the interview. He seemed to be worried about what he said.

He said that his wife sold vegetables (yam, coco yam, cassava, but not lettuce or cabbage) in the neighboring village. She got the vegetables from him and also bought more from the other farmers. At the same time she returned all the money she earned to him and he ultimately decided what to do next with it.

#### **Lettuce**

He and his family did not consume lettuce at home, because they did not particularly like it and he grew it only for a sale. However, he admitted, he liked to eat cabbage sometimes. Before consumption he washed it in a dug well and then brought home to cut it and add to a stew.

#### **Health**

According to the farmer, in his family nobody had stomach problems, including children (worms and running stomach were also mentioned to him). When asked what he would do if he got a diarrhea, he said he would eat some "leaf from the bush" (he even tried to find it in the nearby bush but he could not), and then he would try to find a taxi to go to a hospital.

### **Interview 4, without translator (22 March, 12:00p.m. – 12:20p.m.)**

This farmer rented his farmland from somebody he knew. He was a middle-aged man with 2 children and a wife who was a middle woman/market seller. She sold what he grew on his farm (including lettuce and cabbage) + bought more from other farmers. According to the farmer, she was a "very busy woman" and came back home quite late. Thus he was in charge of their children (took them to school and picked them up from there as well), but it was the wife who did all the cooking for them. He said that he set the price for his wife to sell the vegetables and she returned the income to him. He acknowledged that he was a family head (he was laughing when he said this).

That day he cut 7 cabbages to sell to a local market woman. When asked why he did not give them to his wife to sell on the big market, he answered that it was a small amount, so he dealt with it locally. The farmer thought to get 3.000cedis per cabbage head, but the woman without further negotiations offered him 2.500cedis only saying that he used "too much chemicals" to grow these cabbages. The farmer did not argue, and said laughing that this was a typical "African woman" (he meant the way she negotiated the price).

Apart from that cabbage-selling event he did not wish to talk any more and was constantly on the move, giving a random answers to the observer's questions. He clearly wanted to withdraw from further conversation (he needed an observer only to help him sell the cabbage, because he could not carry 7 heads alone).

#### **Lettuce**

The respondent said that their family ate lettuce and cabbage very often. And his wife washed it in salty water. He added: "she was taught how to wash lettuce properly", but the interviewer did not have time to find out what or who taught her and how exactly they washed it.



## By Viktor Poluektovas, MSc Public Health

### Health

The farmer said that at times his family members had problems with diarrhea, but again, he refused to answer any further questions.

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#### Main summary points of the interviews:

1. The farmers were weary of the people (students, researchers, journalists, etc.) coming to them and asking the questions.
2. They were very alert about what they said, especially about health related issues (worm infections, diarrhea).
3. They indeed consumed the lettuce and knew about the salt as the method to wash it. But it was not clear whether they applied this practice every time they washed lettuce or simply said they did it in order to please the interviewers (and probably themselves as well), or for any other reason.
4. Stomach-related problems existed in the community, but the true scale of it was difficult to reveal, as this topic was a “taboo” one to talk to outsiders.
5. Most farmers took the shower after coming home from the farm and used soap to wash the hands before handling the food. However, again, it was not clear whether they applied this practice every time in real life.
6. Husband’s and wife’s business relationship in a farmer’s family, where the wife is a market seller of his produce, might look much more complicated than some of the farmers tried to show, saying that their wives always brought the money back to them and accepted the prices the husbands set.
7. Most farmers knew that the lettuce, if not treated well with salty water or vinegar, might cause some stomach problems, but they seemed unaware that the polluted water might be the reason of this.