

# Epidemiological Profile of the Collective Food Toxi-Infections in Morocco between 2010 and 2012: The Region of the Gharbchrardabni-Hssen as Example

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**Abstract:** *At the national level and the world scale, the collective food toxi-infections win of the place (square) among health problems; This real plague urged the Regional office of the Health of the Gharb Chrarda Bni-Hssen to set as goal among others to include the epidemiology of the TIAC. So our study enters this executive and it concerns the foyers of TIAC declared to the Regional office of the Health of the Gharb Chrarda Bni-Hssen and to release the epidemiological profile of it of these affections. We opted for a retrospective study concerning 19 homes (foyers) of TIAC recorded in the specific index forms of declaration in the Regional office of the Health of the Gharb Chrarda Bni-Hssen. On 19 declared TIAC, having stated 90 hospitalizations. The evolution of the number of foyers was marked by fluctuations annual, with a peak for the month 7 of the festivities, germs most frequently met were the Staphylococcus aureus and the Clostridium perfringens, the most suspicious food is the milk and its by-products (47 %), the most concerned by the declarations are the Doctor Head of SIAAP, the family foyer is recognized as supplier of TIAC in 70 %.*

**Keywords:** profile, epidemiological, Toxi-infection, food, collective, GCBH

## 1. Introduction

Collective food Toxi-infections (TIAC) constitutes a stake in public health in the Regional office of the Health of the Gharb Chrarda Bni-Hssen, with what it engenders of sick and expenses. A foyer) of TIAC is defined by the arisen of at least two cases of a similar, generally digestive symptomatologie, the source of which we can bring report to the same food origin (1).

According to the WHO, the first world estimations published this day on the diseases of food origin show that, every year, 1 person on 10 fall ill by consuming contaminated food and that die 420 000. The children of less than five years are explained to a particularly brought up risk and 125 000 die every year from diseases of food origin. It is in Regions WHO of Africa and South-East Asia that responsibility of attributable morbidity in these diseases is the highest.

The African Region which is proportionally in the population confronted with the strongest responsibility of diseases of food origin. We esteem every year at more than 91 millions the number of cases and in 137 000 that of the deaths (2).

Some of this of food poisonings entails deaths in Morocco. On 17 896 cases of diseases of food origin declared to the CAPM during 20 years, there were 59 deaths declared (0, 4%) (3).

## 2. Methods

The study is retrospective concerning 19 foyers, we proceeded by running the index forms of declaration of the TIAC of the Regional office of the Health of the Gharb Chrarda Bni-Hssen which include four leaves who were not well included. Besides certain relationships of

investigations of the presenters of SIAAP who were hastily drafted on loose sheets and not on official document.

So a bar was edited) to be as means of data collections. Let us note well that we excluded only the incomplete index forms. On the other hand we retained the declarations that did not arrive at the DELM.

## 3. Results

Evolution of the number of TIAC: (Figure 1)

All in all 19 homes of TIAC were declared between 2010 and 2012 in the region, including a total of 142 cases and stating 90 hospitalizations. The largest number of households 6 was recorded respectively in month 3 and 4 for year 2010. As for the most important home contained 21 sick in month 5 of year 2012.

Monthly distribution: (Figure 2) The highlighting of a peak in July which is the period of the festivities. Distribution according to the age and the sex: (figure 3) The poisonings so involve the young population with more than half. The TIAC affected 62 men (43 %) against 80 women (57 %), thus with a sex ratios of 1, 3 in favour of the female sex. Sources of declaration: (figure 4) It is necessary to note that the Doctor Leader of SIAAP arrives in the first one with 8 homes (40 %) TIAC which were declared .Le Delegated and the Director of Hospital with 5 homes (25 %) each in the second brought back TIAC. A single home (10 %) was indicated by the organizer of SIAAP.

Origin of homes: The largest number of homes was recorded in the delegation of Kenitra with 8 homes, succeeded by Sidi Slimane's delegation (5) and lastly

SidiKacem (5). Ils restarted in a almost equal way in number of homes, with 10 in Urbain and 9 in Countryman.

Clinical demonstrations: (figure 5) The most frequent signs are the ones, generally, of the first class and which appear at more than 50 % of the sick: abdominal pains, diarrheas, nausea, vomitings, fever.

Germes in cause: At the level of 19 homes of TIAC the causal agent was identified, so the Staphylococcus aureus was found in (55 %) homes, and Clostridium perfringens in (45 %).

Involved food: (figure 6) Dishes the most frequently suspects were the milk and its by-products (47 %), comes successively meats (21 %), Eggs and poultry (15 %), fruits and vegetables (10 %) and the others (7 %).

Contributing factors: The use of the contaminated raw material was at the origin of 14 homes or about 75 %. As for the insalubrity of the environment, he was raised in 5 homes (25 %).

Places of arisen: (table 1) The circumstances of arisen had allowed to individualize the following cases namely the family space with 14 homes (75 %), the mahlabia 2 homes (10 %), the pastry cook, the peddler and the restaurant lastly with a home each (5 %).

Deadline of declaration: The declarations in competent authorities show margins of time going from 1 day to 3 days, with the exception of two episodes of TIAC in 2012 which were brought back the same day. It is necessary to indicate that during two 2010s and 2011 two episodes of TIAC each were not communicated to the DELM.

#### 4. Discussion

It should be noted that, The collective food toxi-infections declared in the region of the GCBH come only from the public sector. On the other hand the private bodies are not involved. It is for its reasons that operating profits are not too significant. Actually, our plan of the day watch on the TIAC justified on the compulsory declaration is far from being completed. So foyers of TIAC escape well the declaration. This fact is not of exception for our region, because three localities of Tunisia sulphurate of money declaration (4,5,6 ). However, the profits of our study can be considered as springs which can be developed in the weather to generate strategic shares. In this way, we can consider that our region made rise its distinctions of the TIAC of the other regions. Considering the main profits); the average of houseworks is 6; the maximum of sick declared by foyer is 21, knowing well that our region is known by her big families, where live together the grandfather and his grandsons; the annual evolution is marked by a fluctuation, which is can be explained by the new division; afterward the cases are can be taken care to the delegation of SidiSlimane recently create without being declared; as for the monthly evolution, it is necessary to note a peak for the month 7 when the festivities take place; the women are the most explained to the TIAC with a sex ratios of 1,3, the teenagers are the

most inclined to be infected; the province of Kenitra is the most touched with 8 foyers her alone, it is necessary to remind that the socioeconomic character is an influencing mailman because the urban and the countryman is almost divided the number of foyers of TIAC; The most frequent clinical signs were noticed, showing well the weak toxic character the most incriminated food which is the milk and its by-products; by consulting mailmen contributing to the appearance of these TIAC it turns out that the food hygiene is a good means of prevention; while we expected that the industrial preparation is the first core of the proliferation of the TIAC as in most of the developed countries ( 7,8 ), on the contrary we reached us in that the family foyer is spring of TIAC, showing well the behavior of the population of the region which is characterized by a growing recourse to the family preparations.

#### 5. Conclusion

The TIAC establishes health problem publics in our region, but a delay on give a parchment finish him to declarations was noticed, which hinders in the good progress of the epidemiological investigation. Besides, during our study the index card of declaration is established of 4 separated sheets making so difficult the grouping of the data of the investigation. We had the initiative to publish an index card of simple and complete collection.

By referring to the situation known described, and counting on the lack of exhaustiveness of the existing data, we have to comment on the state with a spirit of reflection.

It is necessary to act current in front of any case of TIAC, by an improvement of capacities to understand better the epidemiology. On the other hand, the investigation must be led for the good deadlines with epidemiological approaches to end in reliable results which serve as strategic actions.

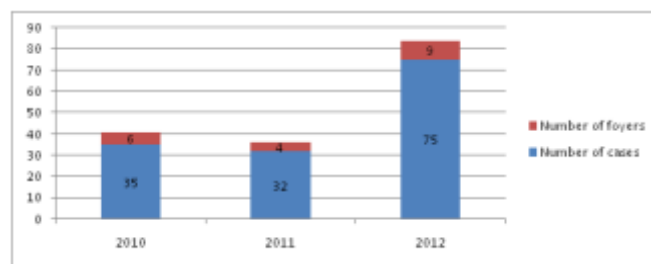


Figure 1: Number of homes and case of the declared TIAC

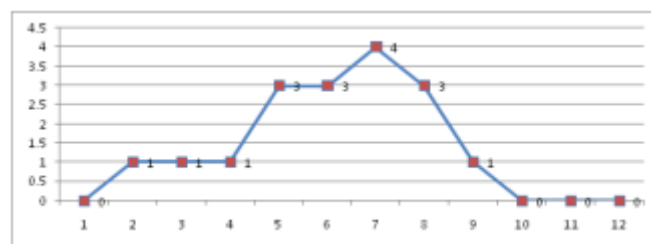


Figure 2: Monthly Distribution of home of the TIAC

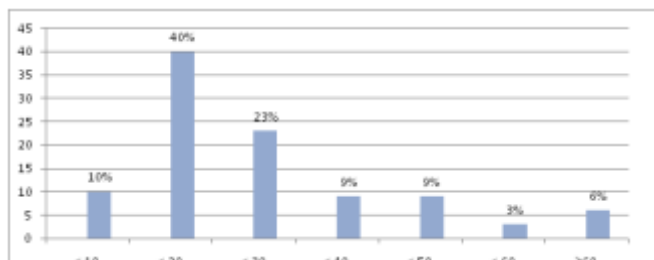


Figure 3: Distribution according to the age

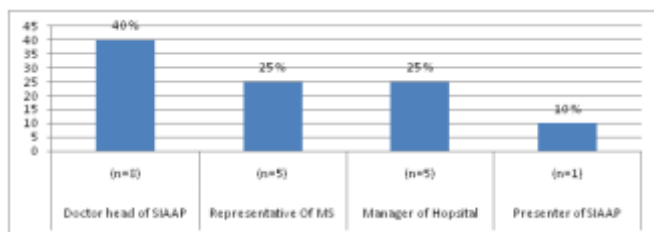


Figure 4: Distribution of the source of declaration

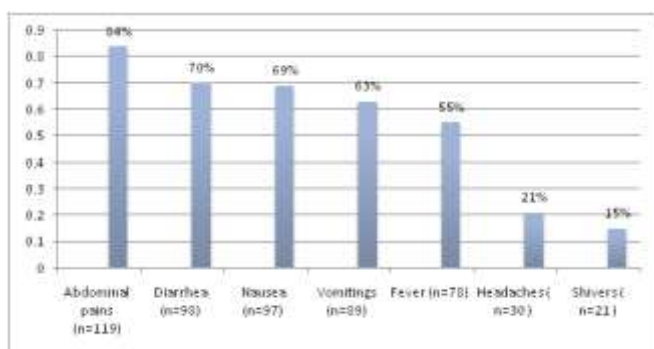


Figure 5: Clinical Signs detected in 19 foyers of TIAC

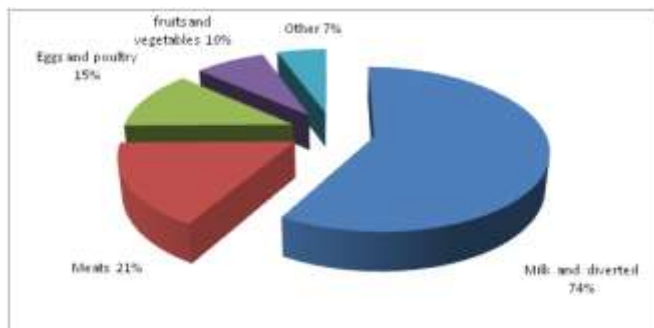


Figure 6: Food incriminated in the TIAC

Table 1: Distribution of the TIAC according to the places of arisen

Foyer	Nombre	%
Family Foyer	14	75
Mahlaba	2	20
Pastrycook	1	5
Peddler	1	5
Restaurant	1	5
Total	19	100

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