

Diseases situation of population by retrospective figures of commune health station from 2002 to 2006

Dam Thuong Thuong, Ta Tuyet Binh, et al.
National Institute of Occupational and Environmental Health

Retrospective figures in 5 years of 3 commune health stations was used to describe diseases situation of population living near chemical factories. The result showed that:

- In Tho Son commune, the rate of respiratory diseases was highest in all 5 years (61%-73%); follow by cardiovascular diseases (20%-28%).
- In Ben Got commune, the rate of respiratory diseases in all 5 years (69%-76%) was higher than other diseases.
- In Gia Cam commune, the rate of respiratory diseases in all 5 years (4,6%-12,1%) was higher than other diseases.

Comparison the disease situation of Tho Son and Ben Got commune (those affected by South Viet Tri Industry Area) to Gia Cam commune (those less affected) showed that: the rate of respiratory diseases and cardiovascular diseases in Tho Son and Ben Got were significantly higher than those in Gia Cam commune in all 5 years.

Those respiratory diseases and cardiovascular diseases related to environmental pollution were higher in the 2 communes affected by the Industry Area.

1. Introduction

In the process of industrialization and modernization of the country, chemicals have been used in manufacturing and everyday life, especially in industrial areas such as such Viet Tri an industrial zone which had been build long time ago in the North of Viet Nam. Companies and factories in this area have mainly used and produced chemicals. Therefore, the environment here has been some what polluted by chemicals and effected community health. In order to investigate environmental affects on community health in chemical producing, health data of 3 wards in Viet Tri (Tho Son, Gia Cam, Ben Got) has been reviewed from 2002 to 2006.

*** Aims: To identify health status of people living near by chemical producing areas.**

2. Subjects and methodology:

2.1. Subjects:

- People living near by South Viet Tri industrial area: people who came for health care at Commune Health Station in Tho Son and Ben Got ward.
- People living far from South Viet Tri industrial area: people who came for health care at Commune Health Station in Gia Cam ward.

2.2. Methodology: Review commune health station data from 2002-2006.

2.3. Data processing: EPIINFO 6.04 and medical statistic methods.

3. Results:

3.1. Morbidity from reviewing data in 3 wards Tho Son, Ben Got and Gia Cam

Table 1: Percentage of 5 highest diseases in the last 5 years in Tho Son

| Diseases | 2002 (%) | 2003 (%) | 2004 (%) | 2005 (%) | 2006 (%) |
|-------------------------|-------------|-------------|-------------|-------------|-------------|
| Respiratory diseases | 61,0 | 65,0 | 53,0 | 68,0 | 73,0 |
| Cardiovascular diseases | 20,0 | 21,0 | 21,0 | 25,0 | 28,0 |
| Digestive diseases | 18,0 | 19,0 | 19,0 | 20,0 | 21,0 |
| Alleologic diseases | 10,0 | 10,0 | 10,0 | 11,0 | 11,0 |
| Cancer | 1,0 | 1,0 | 2,0 | 2,2 | 2,4 |

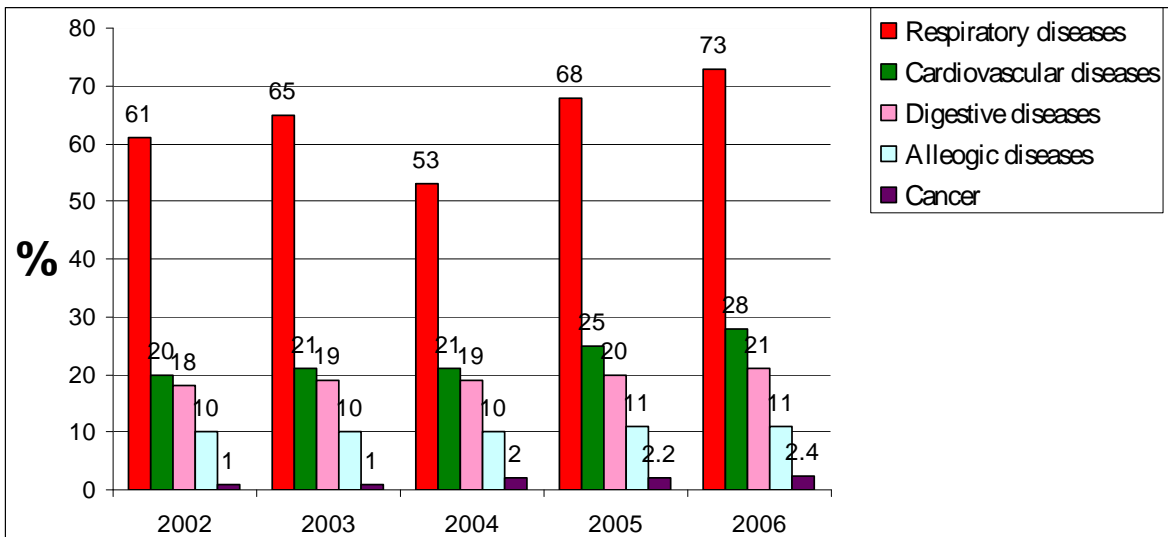


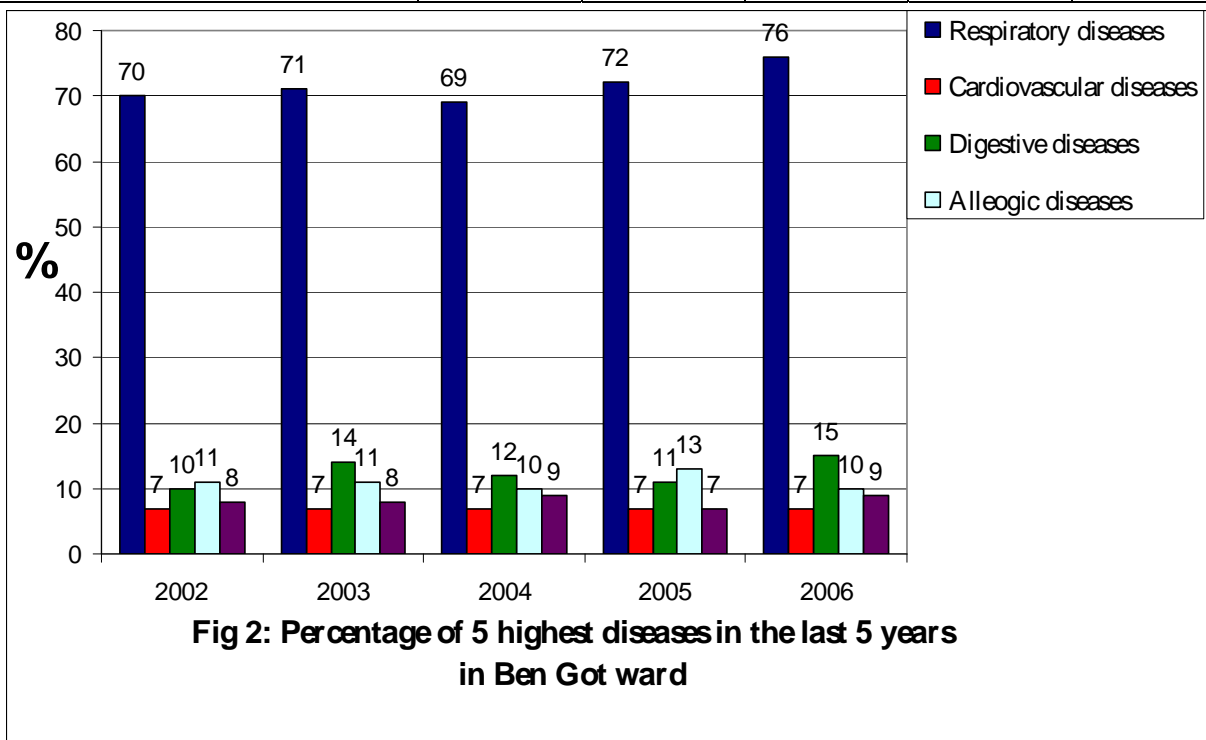
Fig.1: Percentage of 5 highest diseases in the last 5 years in Tho Son ward

Results of table 1 and Fig. 1 showed that: in 5 years from 2002-2006, people living in Tho Son ward was caught respiratory diseases is highest (53.0% - 73.0%), the following is Cardiovascular diseases (20.0% - 28.0%), Digestive diseases, Alleologic diseases and Cancer.

Table 2: Percentage of 5 highest diseases in the last 5 years in Ben Got

| Diseases | 2002 | 2003 | 2004 | 2005 | 2006 |
|----------|------|------|------|------|------|
|----------|------|------|------|------|------|

| | (%) | (%) | (%) | (%) | (%) |
|---------------------------|------|------|------|------|------|
| Respiratory diseases | 70,0 | 71,0 | 69,0 | 72,0 | 76,0 |
| Cardiovascular diseases | 7,0 | 7,0 | 7,0 | 7,2 | 7,5 |
| Digestive diseases | 10,0 | 14,0 | 12,0 | 11,0 | 15,0 |
| Alleogic diseases | 11,0 | 11,0 | 13,0 | 13,0 | 10,0 |
| Muscolu skeletal diseases | 8,0 | 8,0 | 7,0 | 7,0 | 9,0 |

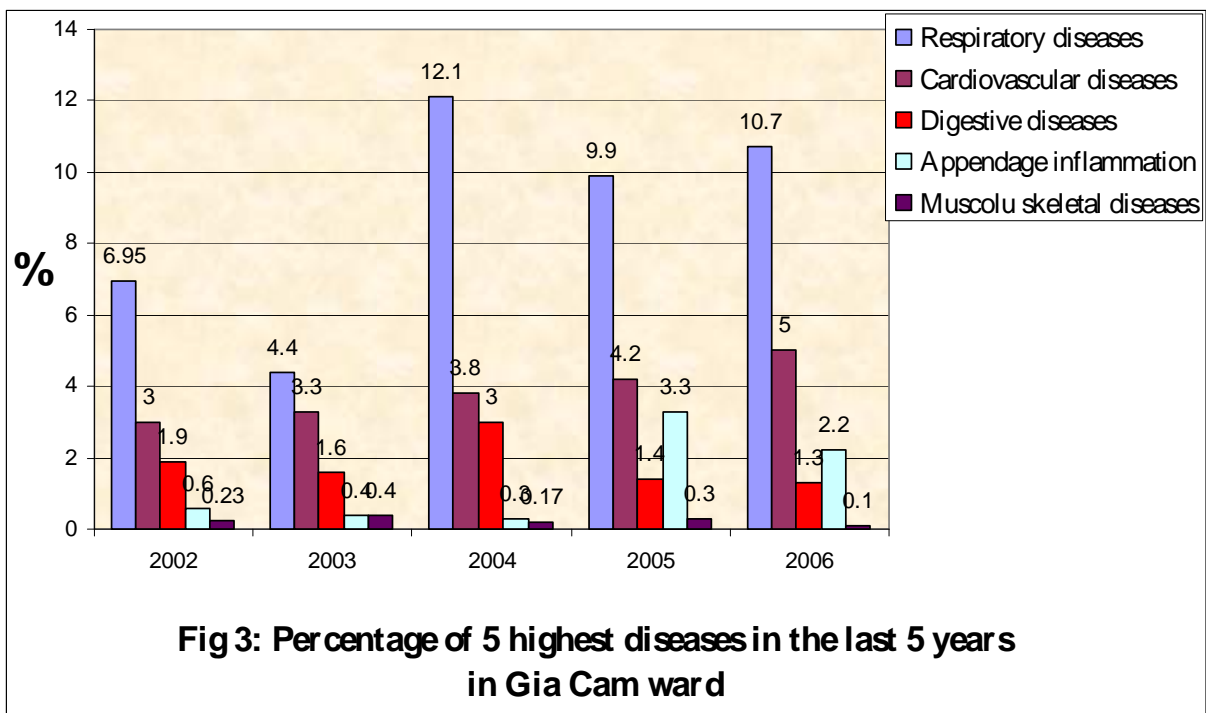


Results of table 2 and Fig. 2 showed that: in 5 years from 2002-2006, people living in Ben Got ward was caught respiratory diseases is highest the same Tho Son ward (69.0% - 76.0%), the following is Cardiovascular diseases (7.0% - 7.5%), Digestive diseases, Alleogic diseases and Muscolu skeletal diseases with lower percentage.

Table 3: Percentage of 5 highest diseases in the last 5 years in Gia Cam

| Diseases | 2002 | 2003 | 2004 | 2005 | 2006 |
|----------|------|------|------|------|------|
|----------|------|------|------|------|------|

| | (%) | (%) | (%) | (%) | (%) |
|---------------------------|------|-----|------|-----|------|
| Respiratory diseases | 6,9 | 4,6 | 12,1 | 9,9 | 10,7 |
| Cardiovascular diseases | 3,0 | 3,3 | 3,8 | 4,2 | 5,0 |
| Digestive diseases | 1,9 | 1,6 | 3,0 | 1,4 | 1,3 |
| Appendage inflammation | 0,6 | 0,4 | 0,3 | 3,3 | 2,2 |
| Muscolu skeletal diseases | 0,23 | 0,4 | 0,17 | 0,3 | 0,1 |

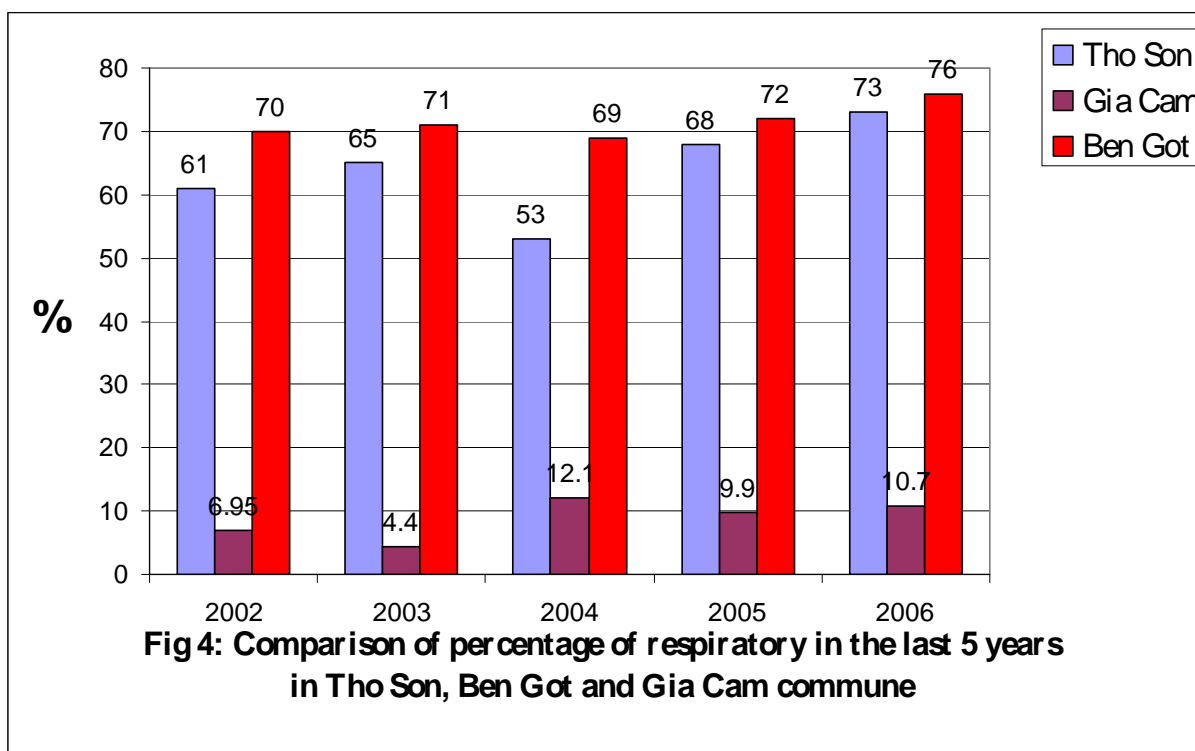


Results of table 3 and Fig. 3 showed that: in 5 years from 2002-2006, people living in Gia Cam ward was caught respiratory diseases from 4.6% to 10.1%, the following is Cardiovascular diseases from 3.0% to 3.8%, Digestive diseases, Appendage inflammation and Muscolu skeletal diseases with lower percentage.

3.2. Comparison of disease of Tho Son, Ben Got and Gia Cam communes:

Table 4: Comparison of percentage of respiratory diseases in the last 5 years in Tho Son, Ben Got and Gia Cam commune

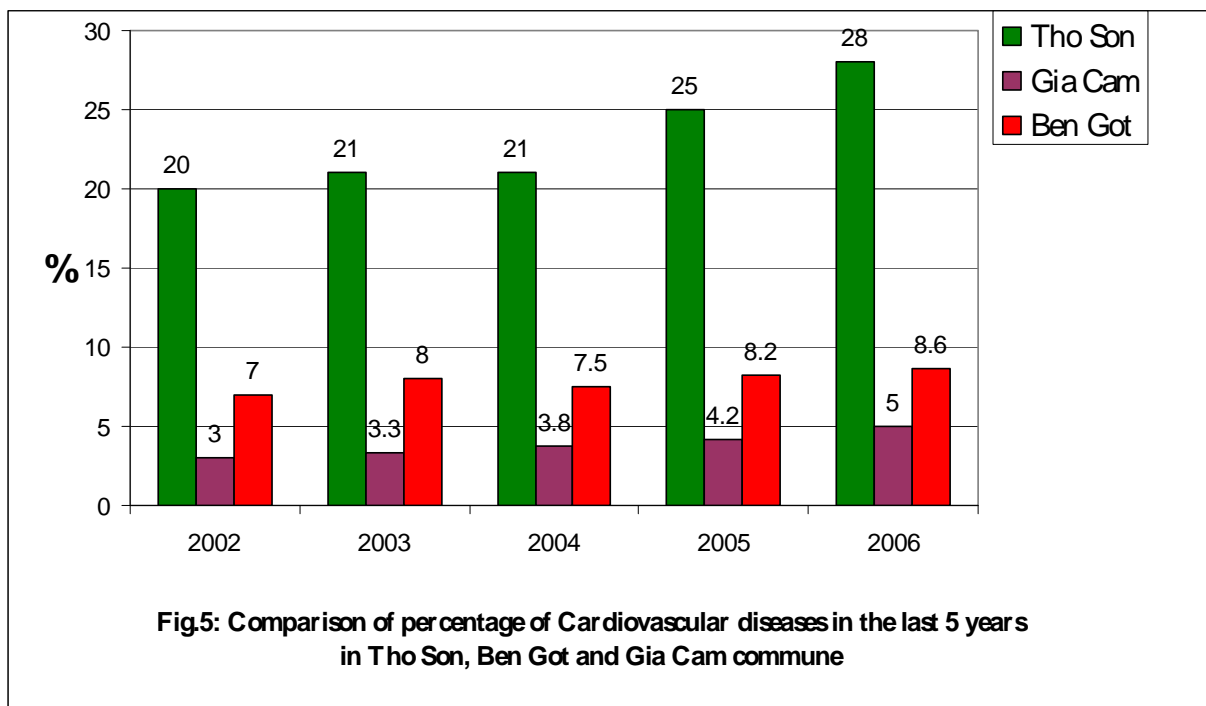
| Commune | 2002 (%) | 2003 (%) | 2004 (%) | 2005 (%) | 2006 (%) |
|---------|----------|----------|----------|----------|----------|
| Tho Son | 61,0 | 65,0 | 53,0 | 68,0 | 73,0 |
| Gia Cam | 6,95 | 4,6 | 12,1 | 9,9 | 10,7 |
| Ben Got | 70,0 | 71,0 | 69,0 | 72,0 | 76,0 |



From table 4 and Fig 4 we recognise percentage of respiratory disease in Tho Son and Ben Got are higher than Gia Cam in 5 years 2002-2006.

Table 5: Comparison of percentage of Cardiovascular diseases in the last 5 years in Tho Son, Ben Got and Gia Cam commune

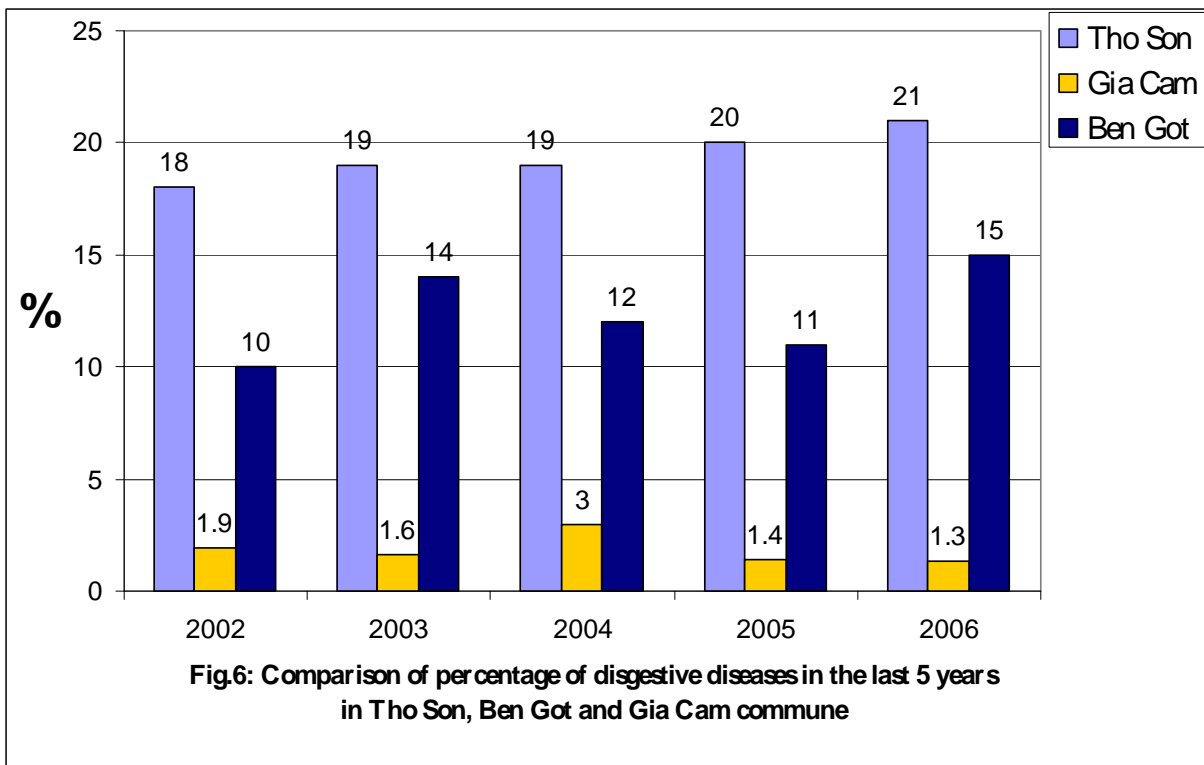
| Commune | 2002 (%) | 2003 (%) | 2004 (%) | 2005 (%) | 2006 (%) |
|---------|-------------|-------------|-------------|-------------|-------------|
| Tho Son | 20,0 | 21,0 | 21,0 | 25,0 | 28,0 |
| Gia Cam | 3,0 | 3,3 | 3,8 | 4,2 | 5,0 |
| Ben Got | 7,0 | 7,0 | 7,0 | 7,2 | 7,5 |



From table 5 and Fig 5 we recognise percentage of Cardiovascular diseases in Tho Son and Ben Got are higher than Gia Cam in 5 years 2002-2006.

Table 6: Comparison of percentage of digestive diseases in the last 5 years in Tho Son, Ben Got and Gia Cam commune

| Commune | 2002 (%) | 2003 (%) | 2004 (%) | 2005 (%) | 2006 (%) |
|---------|-------------|-------------|-------------|-------------|-------------|
| Tho Son | 18,0 | 19,0 | 19,0 | 20,0 | 21,0 |
| Gia Cam | 1,9 | 1,6 | 3,0 | 1,4 | 1,3 |
| Ben Got | 10,0 | 14,0 | 12,0 | 11,0 | 15,0 |



From table 6 and Fig 6 we recognise percentage of digestive diseases in Tho Son and Ben Got are higher than Gia Cam in 5 years 2002-2006.

4. Conclusion and recommendation:

The rate percentage of people suffered from respiratory and cardiovascular diseases in Tho Son and Ben Got Commune – the 2 communes affected by South Viet Tri industrial area was always statistically significant higher than that of Gia Cam commune – the one less affected by South Viet Tri Industrial Area in the last 5 years. Respiratory and cardiovascular diseases those among diseases related to environmental pollution in the 2 affected communes were higher than that in the less affected commune. Therefore, recommendation was made for more in-depth reseach on the health of people living near by industrial areas in order to find out relevant intermentions to promote people community's health.