# Chapter 4   Demographics of HD Patients in Lebanon

The demographics of HD patients in Lebanon are similar in many ways to these patients elsewhere in the world. Variations exist between regions of Lebanon which will be detailed below. Also, patients who started HD recently (last 18 months) show some differences compared to those who started earlier.

Age of HD Patients (Ref. Table 4.1)
Two age parameters of interest are presented below: age at start of HD, and the age of patients at the cutoff date for this report (June 2, 2012).

The <u>mean age at start of HD</u> in Lebanon is 55 ± 17.7 years (Median = 57). However, patients who started HD in the past 18 months were on average 8 years older than those who started earlier (Mean age 60.9 vs. 52.6 years respectively). The mean age for all patients varies slightly in each region, with the youngest being in North Lebanon at 49.9 years and the oldest in Mount Lebanon at 59.4 years. More than a quarter of HD patients start dialysis before age 45 years, while about 5% of patients start dialysis above age 80. Data on age distribution by region and patient type are shown in **figure 4.1**.

Figure 4.1 Ages of HD patients in Lebanon at start of dialysis: by region and patient category
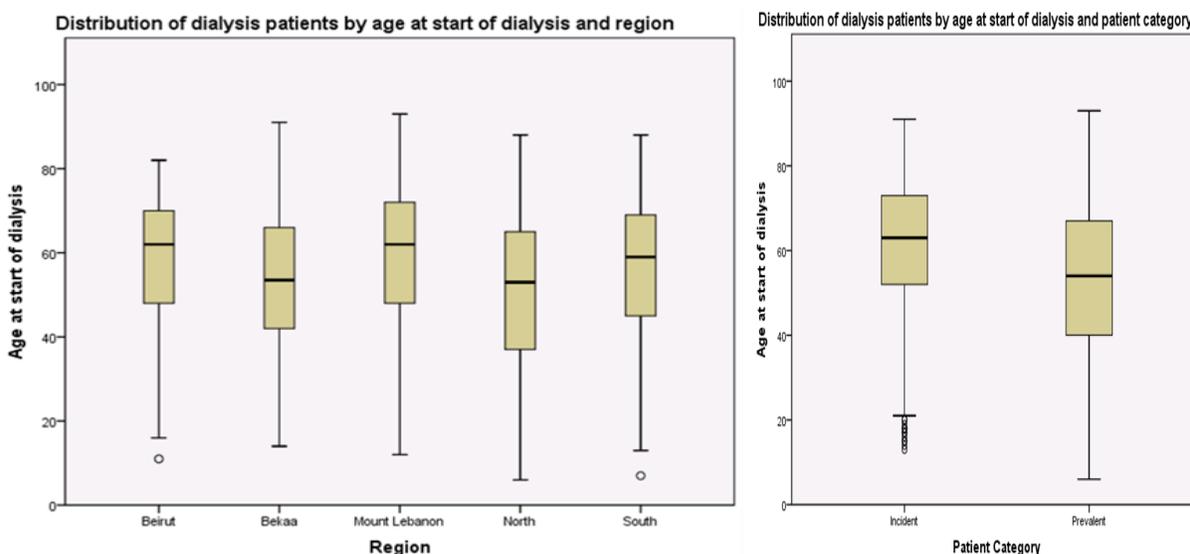
As of <u>June 2nd, 2012,</u> the mean age of all HD patients in Lebanon was 59.4 ± 16.2 with similar age variations for dialysis initiation by region, but less of a differential between recent and earlier starters on HD (mean age 61.2 vs. 58.7 years respectively). Over 25% of HD patients were younger than 50 years, while more than 5% were older than 83 years. The distribution by region of Lebanon and patient type are shown in **figure 4.2**.

Mortality and Survival (Ref. Table 4.1)
The <u>mean age at mortality</u> among HD patients in Lebanon was 66.7 ± 13.8 years with minor difference between recent and earlier starters. There were minor differences between regions with the youngest

mean age at mortality in Bekaa (63.5 years) and oldest in Mount Lebanon (69.4 years). More than a quarter of HD patients died before age 60 while another quarter lived beyond age 77 (**figure 4.3**).

The <u>mean survival</u> among patients who died after starting HD was 56.5 ± 58.5 months (Median = 37 months). The differential between mean and median survival was due to a small proportion of patients who survived longer on HD: Over 10% of patients lived > 12.5 years, while half of patients died during the first three years.

Figure 4.2 Age of HD patients in Lebanon on June 2, 2012 (Data Cutoff Date): by region and patient category
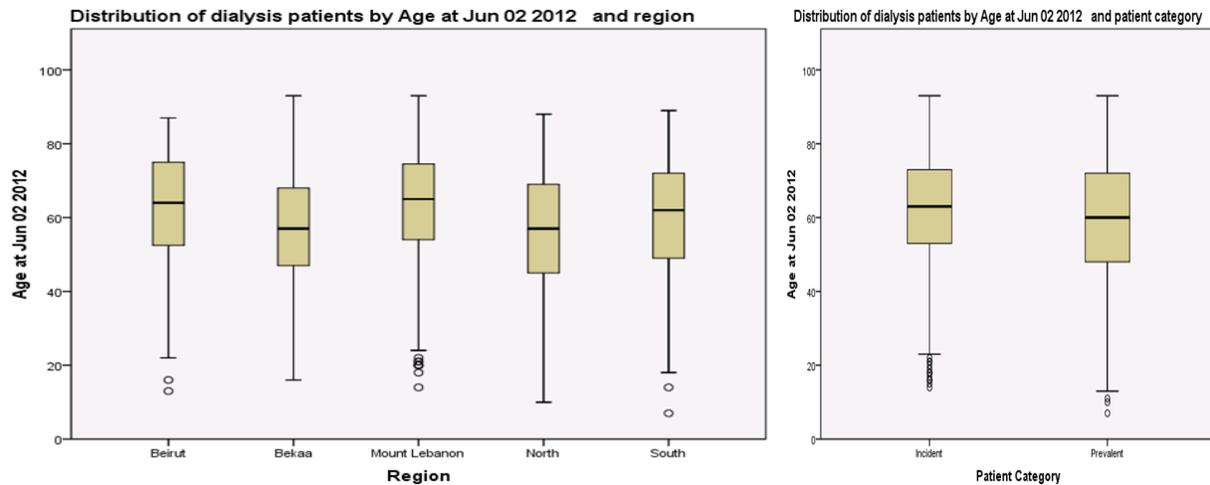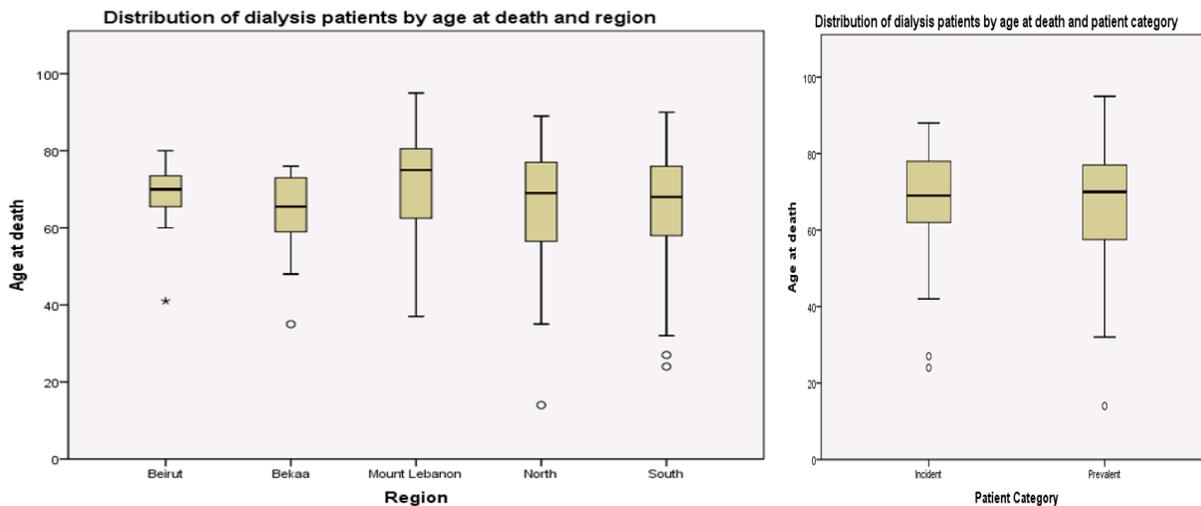

Figure 4.3 Ages of HD Patients in Lebanon at Mortality: By Region and Patient Category

Gender & Marital Status (Ref. table 4.2)
Females constitute 43.2% of HD patients in Lebanon (***figure 4.4***) with some differential by region (low of 33% in Bekaa and high of 46.6% in South). The proportion of females was higher among recent starters on HD (46.4%) compared to earlier starters (42.2%).

The majority of HD patients were married (73.5%) with no noticeable difference by region. However, the proportion of married patients was higher in recent starters (82%) compared to earlier starters (70%), with the difference being represented in higher proportion of single (19.9% vs. 13.1%), widowed (7.2% vs. 3.2%) or divorced (2.5% vs. 0.8%) respectively among the earlier starters compared to recent starters on HD.

Education (Ref. table 4.2)
Almost two-thirds of HD patients in Lebanon are either illiterate (23.4%) or barely read and write (42%). No difference in the proportion of least educated (*figure 4.5)* between recent starters on HD (66.3%) and earlier starters (65%). More than 30% of patients had secondary or university education in Beirut and Mount Lebanon regions, while highest proportion of least or not educated patients were in North (78.4%) and South (74.5%) regions. Illiteracy was higher in females (36%) compared to males (15%).

Figure 4.4 Distribution of HD patients' gender in Lebanon: by region and patient category
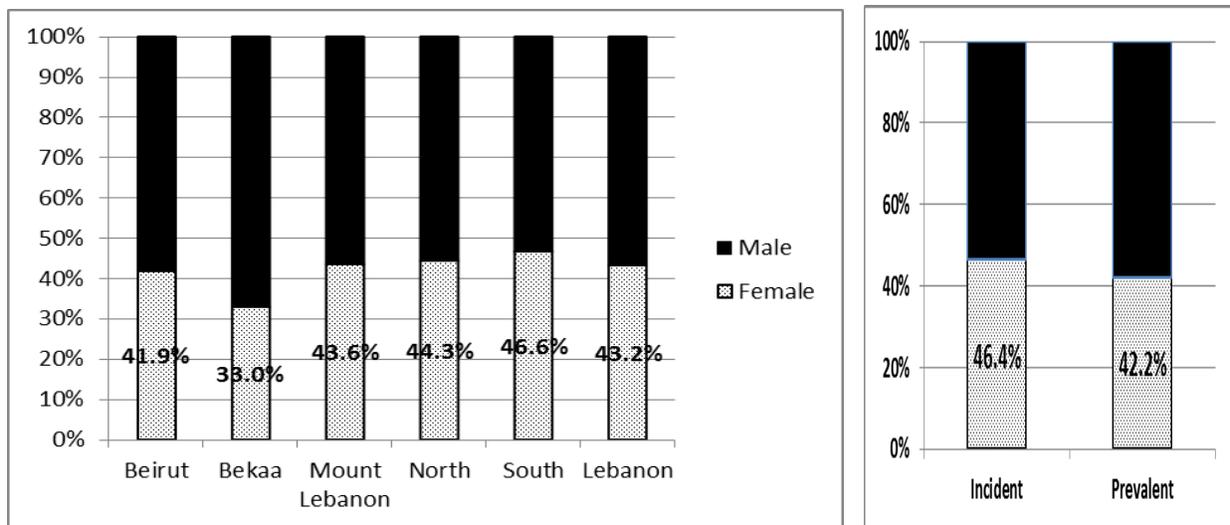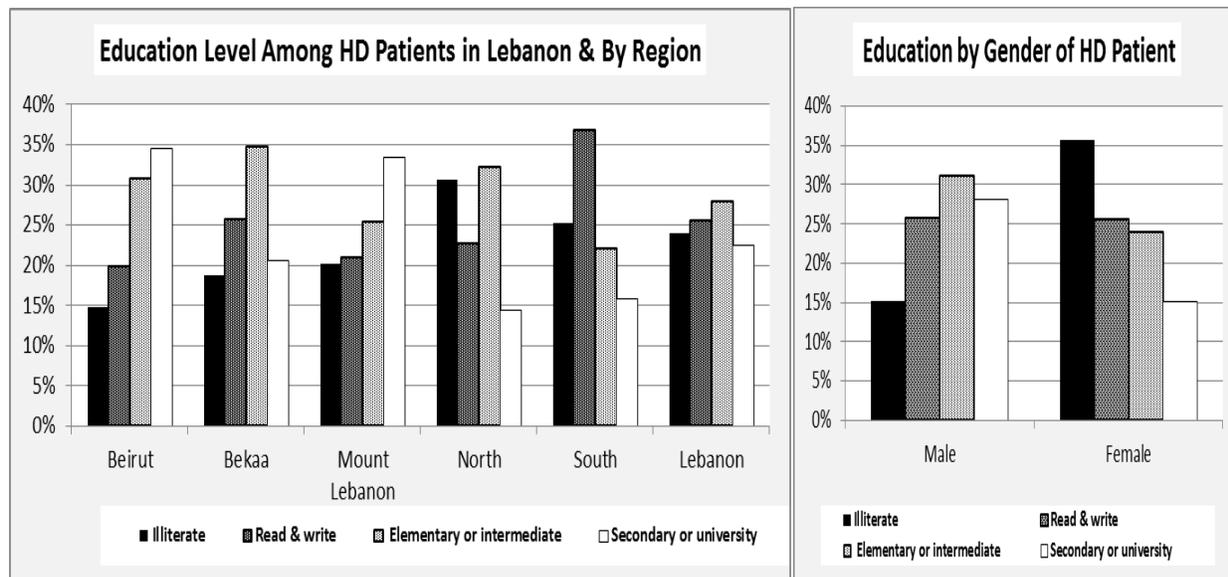
Figure 4.5 Distribution of HD Patients into Levels of Education: By Region and Gender


Living Situation & Working Status (Ref. table 4.2)

Over 90% of HD patients live with family and less than 5% live alone. Most patients are not working (58.5%) with little difference between males and females. There were 23.6% of patients who worked. Yet working status varied greatly by gender: in patients who started HD recently, 6.8% of females and 33% of males worked, compared to 7.2% and 38% respectively in earlier starters. About one-third of female patients labeled themselves as housewives, which roughly made up for the differential in working status. The proportion of patients who are working is slightly higher in Beirut (27.2%) compared to the other 4 regions (low 20's).

Coverage and Payers (Ref. table 4.2)

The MOPH provide the highest proportion of coverage for HD patients in Lebanon (55.8%) followed by the national social security fund (NSSF - 25%). There was only minor difference by gender in the proportion covered by MOPH and NSSF **(figure 4.6)**. The NSSF coverage was highest in urban areas (Beirut: 31.6% and Mount Lebanon: 35.7%) while MOPH coverage was highest in North (60.7%) and South (60.6%). As expected, coverage by the employee's mutuality was highest in Beirut (10.3%) which has highest concentration of government offices. The coverage by the army was highest in Bekaa (15%) and North (12.2%), while all HD patients in Beirut covered by the army dialyzed at the military hospital. A higher proportion of females (10.4%) were treated under the army coverage than males (7.1%).

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Figure 4.6 Distribution of patients' payer coverage: by patient category, gender and region
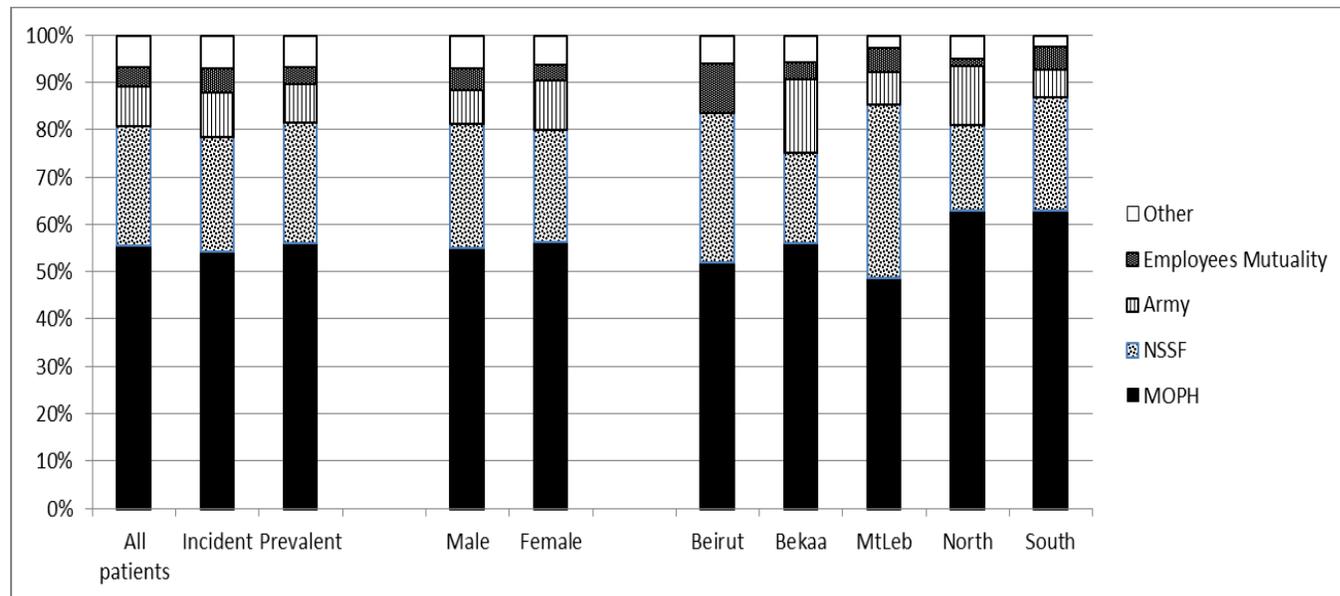
Risk Profile (Ref. table 4.3)

The risk parameters presented in this report are smoking, consanguinity and family with renal disease.

A. **Smoking:** Among HD patients in Lebanon, 37.9% were current or previous smokers who on average smoked for 23.4 years at a rate of 19 cigarettes per day. Smoking was lower among recent starters on HD (31.5%) compared to earlier starters (38.1%). Some differences exist between regions.

B. **Consanguinity & family with kidney disease:** 19.7% of HD patients in Lebanon had at least one family member with kidney disease, (not necessarily end stage) with the highest proportion in South (23.9%) and lowest in Beirut (16.7%). There was an average of 1.64 ± 0.97 family members with kidney disease where most of them being a primary (68.4%) or secondary (22.1%) relationship.

The proportion of patients with at least one family member with kidney disease may not be accurate due to confusion in understanding the questions in this section between consanguinity (family relationship of parents) and family history of kidney disease. This will be corrected in the next update of the database version to ask both questions and state them more clearly (see note below).

Conclusions

The increase in age at the start of HD among incident patients is a phase-phenomenon seen worldwide. Three key factors contribute to this pattern: more elderly patients going on HD, improved therapy of primary disease (diabetes, hypertension and cardiac disease) and increased referral to nephrologists. Level of education among these patients is much lower than in the general population. This emphasizes the importance of education and disease awareness as integral part of a prevention plan among CKD patients, especially if early diagnosis was made possible through mass screening among high risk people.

Consanguinity and family history of kidney disease information are important for determining possible genetic origins of kidney disease. Ask patients to obtain accurate and complete data on this aspect.

Until the database is updated, answer consanguinity section in "Demographics" as follows:

- *Is there kidney disease family consanguinity:*
  Yes indicates that parents are related

- *If "YES", degree of consanguinity:*
  Degree of relationship between parents

- *Total Number of Family Members with Kidney Disease:*
  All family members of any relationship that have kidney disease