

# **CHAPTER 6**

## **MANAGEMENT OF ANAEMIA IN PATIENTS ON DIALYSIS**

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**Table 6.1.1: Treatment for anaemia, HD patients 2002-2011**

<b>Year</b>	<b>Number of patients</b>	<b>% on ESAs</b>	<b>% received blood transfusion</b>	<b>% on oral iron</b>	<b>% received parenteral iron</b>
<b>2002</b>	<b>6108</b>	<b>67</b>	<b>10</b>	<b>85</b>	<b>7</b>
<b>2003</b>	<b>7017</b>	<b>72</b>	<b>12</b>	<b>83</b>	<b>8</b>
<b>2004</b>	<b>8064</b>	<b>74</b>	<b>11</b>	<b>80</b>	<b>10</b>
<b>2005</b>	<b>9344</b>	<b>81</b>	<b>14</b>	<b>74</b>	<b>11</b>
<b>2006</b>	<b>11679</b>	<b>83</b>	<b>18</b>	<b>76</b>	<b>16</b>
<b>2007</b>	<b>12907</b>	<b>85</b>	<b>15</b>	<b>74</b>	<b>17</b>
<b>2008</b>	<b>15399</b>	<b>88</b>	<b>16</b>	<b>63</b>	<b>23</b>
<b>2009</b>	<b>17968</b>	<b>89</b>	<b>15</b>	<b>59</b>	<b>26</b>
<b>2010</b>	<b>19509</b>	<b>90</b>	<b>14</b>	<b>57</b>	<b>26</b>
<b>2011</b>	<b>22740</b>	<b>90</b>	<b>14</b>	<b>54</b>	<b>29</b>

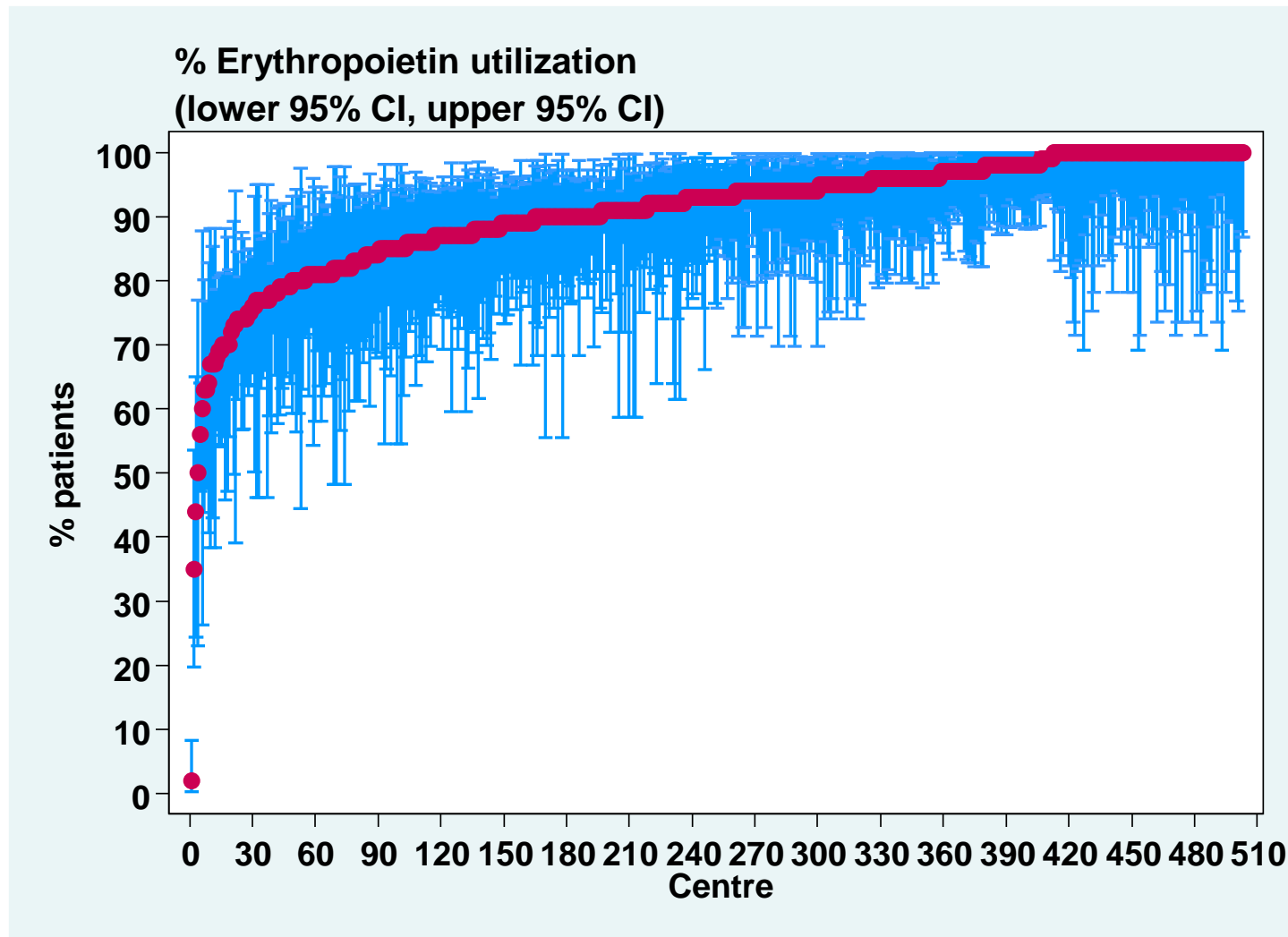
**Table 6.1.2: Treatment for anaemia, PD patients 2002-2011**

<b>Year</b>	<b>Number of patients</b>	<b>% on ESAs</b>	<b>% received blood transfusion</b>	<b>% on oral iron</b>	<b>% received parenteral iron</b>
<b>2002</b>	<b>891</b>	<b>49</b>	<b>11</b>	<b>93</b>	<b>2</b>
<b>2003</b>	<b>1230</b>	<b>53</b>	<b>14</b>	<b>87</b>	<b>4</b>
<b>2004</b>	<b>1312</b>	<b>63</b>	<b>15</b>	<b>85</b>	<b>7</b>
<b>2005</b>	<b>1390</b>	<b>72</b>	<b>12</b>	<b>87</b>	<b>8</b>
<b>2006</b>	<b>1552</b>	<b>74</b>	<b>16</b>	<b>83</b>	<b>13</b>
<b>2007</b>	<b>1806</b>	<b>74</b>	<b>16</b>	<b>80</b>	<b>12</b>
<b>2008</b>	<b>2084</b>	<b>77</b>	<b>16</b>	<b>77</b>	<b>12</b>
<b>2009</b>	<b>2212</b>	<b>76</b>	<b>16</b>	<b>74</b>	<b>14</b>
<b>2010</b>	<b>2360</b>	<b>78</b>	<b>16</b>	<b>73</b>	<b>12</b>
<b>2011</b>	<b>2612</b>	<b>78</b>	<b>18</b>	<b>71</b>	<b>10</b>

**Table 6.1.3: Variation in Erythropoiesis-Stimulating Agents (ESAs) utilization (% patients) among HD centres, 2002-2011**

<b>Year</b>	<b>Number of centres</b>	<b>Min</b>	<b>5<sup>th</sup> centile</b>	<b>LQ</b>	<b>Median</b>	<b>UQ</b>	<b>95<sup>th</sup> centile</b>	<b>Max</b>
<b>2002</b>	<b>153</b>	<b>14</b>	<b>28</b>	<b>57</b>	<b>71</b>	<b>79</b>	<b>91</b>	<b>100</b>
<b>2003</b>	<b>184</b>	<b>17</b>	<b>36</b>	<b>60</b>	<b>73</b>	<b>83</b>	<b>94</b>	<b>100</b>
<b>2004</b>	<b>218</b>	<b>11</b>	<b>39</b>	<b>67</b>	<b>77</b>	<b>86</b>	<b>97</b>	<b>100</b>
<b>2005</b>	<b>245</b>	<b>8</b>	<b>54</b>	<b>73</b>	<b>82</b>	<b>91</b>	<b>100</b>	<b>100</b>
<b>2006</b>	<b>288</b>	<b>3</b>	<b>54</b>	<b>79</b>	<b>87</b>	<b>93</b>	<b>100</b>	<b>100</b>
<b>2007</b>	<b>321</b>	<b>4</b>	<b>62</b>	<b>82</b>	<b>89</b>	<b>94</b>	<b>100</b>	<b>100</b>
<b>2008</b>	<b>377</b>	<b>9</b>	<b>64</b>	<b>85</b>	<b>91</b>	<b>96</b>	<b>100</b>	<b>100</b>
<b>2009</b>	<b>415</b>	<b>0</b>	<b>67</b>	<b>86</b>	<b>92</b>	<b>96</b>	<b>100</b>	<b>100</b>
<b>2010</b>	<b>452</b>	<b>11</b>	<b>73</b>	<b>86</b>	<b>92</b>	<b>97</b>	<b>100</b>	<b>100</b>
<b>2011</b>	<b>503</b>	<b>2</b>	<b>74</b>	<b>87</b>	<b>93</b>	<b>97</b>	<b>100</b>	<b>100</b>

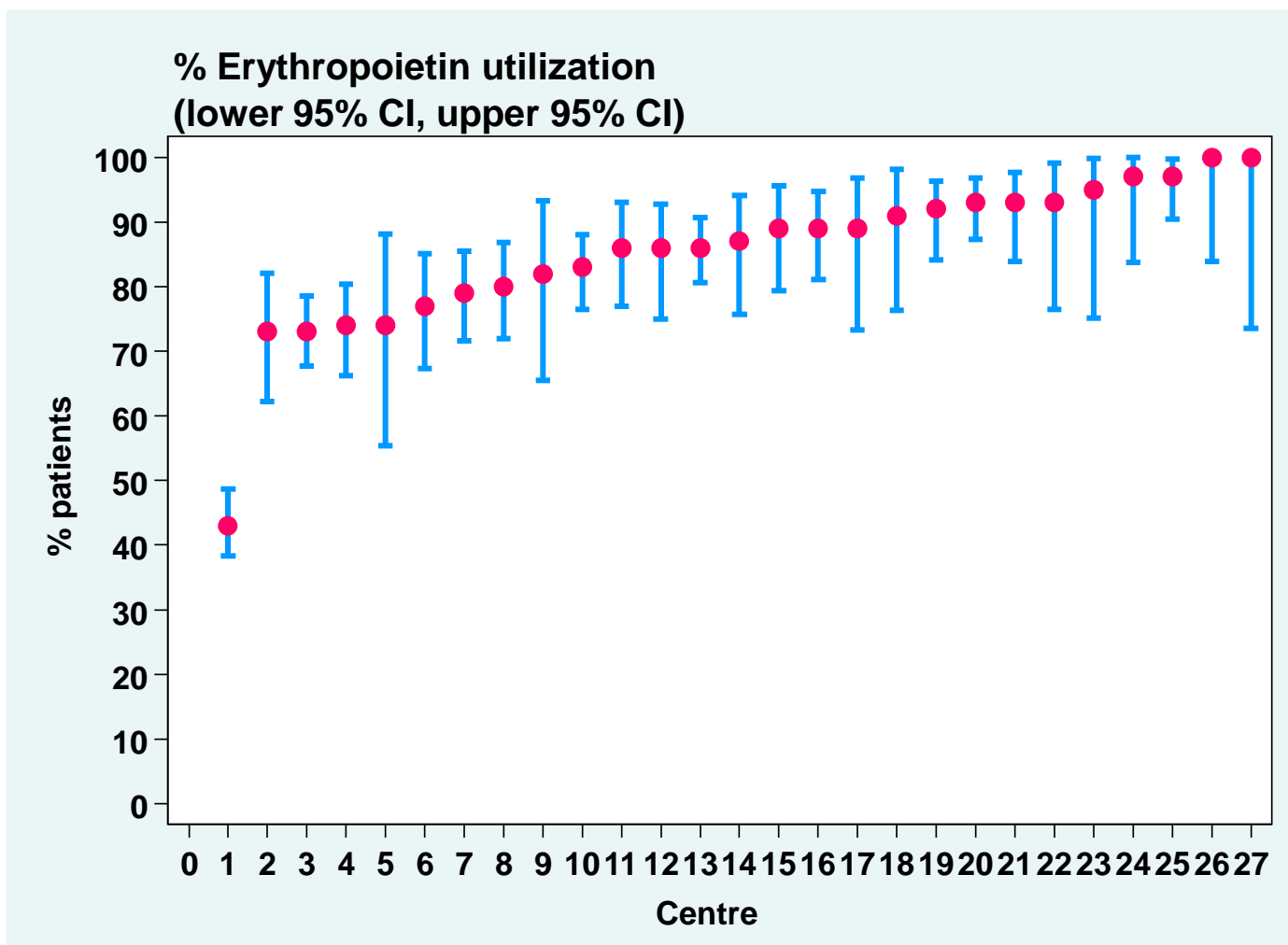
**Figure 6.1.3: Variation in ESAs utilization (% patients) among HD centres, 2011**



**Table 6.1.4: Variation in ESAs utilization (% patients) among PD centres, 2002-2011**

<b>Year</b>	<b>Number of centres</b>	<b>Min</b>	<b>5<sup>th</sup> centile</b>	<b>LQ</b>	<b>Median</b>	<b>UQ</b>	<b>95<sup>th</sup> centile</b>	<b>Max</b>
<b>2002</b>	<b>15</b>	<b>26</b>	<b>26</b>	<b>43</b>	<b>53</b>	<b>62</b>	<b>71</b>	<b>71</b>
<b>2003</b>	<b>18</b>	<b>25</b>	<b>25</b>	<b>38</b>	<b>50.5</b>	<b>67</b>	<b>92</b>	<b>92</b>
<b>2004</b>	<b>18</b>	<b>5</b>	<b>5</b>	<b>53</b>	<b>63</b>	<b>79</b>	<b>97</b>	<b>97</b>
<b>2005</b>	<b>19</b>	<b>41</b>	<b>41</b>	<b>62</b>	<b>69</b>	<b>81</b>	<b>97</b>	<b>97</b>
<b>2006</b>	<b>22</b>	<b>36</b>	<b>52</b>	<b>67</b>	<b>74</b>	<b>86</b>	<b>96</b>	<b>97</b>
<b>2007</b>	<b>23</b>	<b>0</b>	<b>44</b>	<b>64</b>	<b>76</b>	<b>90</b>	<b>97</b>	<b>100</b>
<b>2008</b>	<b>23</b>	<b>20</b>	<b>58</b>	<b>71</b>	<b>79</b>	<b>88</b>	<b>100</b>	<b>100</b>
<b>2009</b>	<b>24</b>	<b>30</b>	<b>56</b>	<b>73.5</b>	<b>81.5</b>	<b>87.5</b>	<b>100</b>	<b>100</b>
<b>2010</b>	<b>25</b>	<b>55</b>	<b>63</b>	<b>80</b>	<b>84</b>	<b>95</b>	<b>100</b>	<b>100</b>
<b>2011</b>	<b>27</b>	<b>43</b>	<b>73</b>	<b>79</b>	<b>87</b>	<b>93</b>	<b>100</b>	<b>100</b>

**Figure 6.1.4: Variation in ESAs utilization (% patients) among PD centres, 2011**

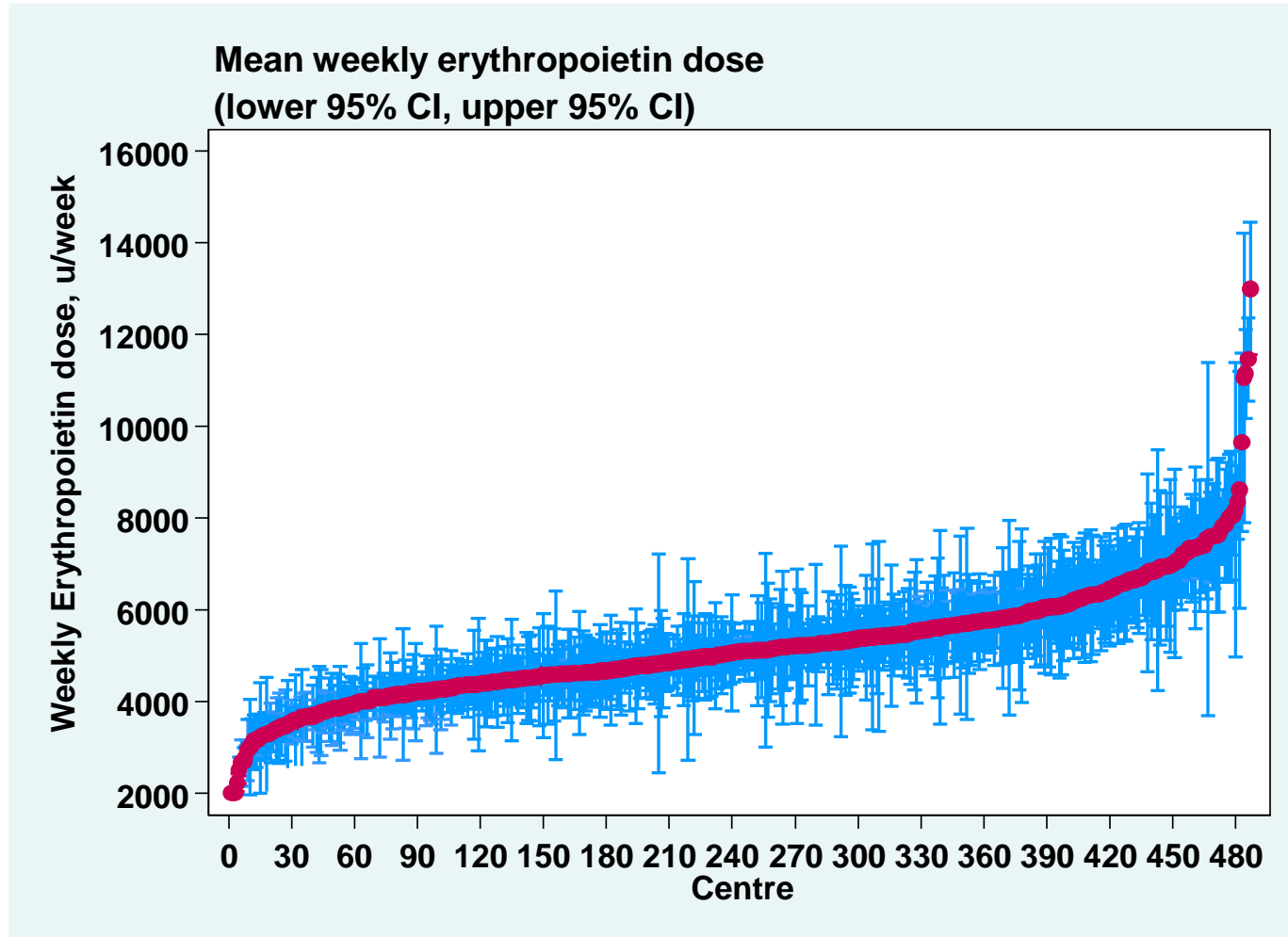


**Table 6.1.5: Variation in mean weekly ESAs dose (u/week) among HD centres, 2002-2011**

Year	Number of centres	Mean	SD	Min	5 <sup>th</sup> centile	LQ	Median	UQ	95 <sup>th</sup> centile	Max
2002	118	2467	706	1714	2000	2000	2240	2600	4000	5667
2003	148	2466	623	1790	2000	2009	2193	2667	3778	4769
2004	180	2464	648	1929	2000	2000	2182	2654	3869	4929
2005	218	3494	1857	1962	2000	2267	2926	4098	6267	16000
2006	272	5131	2098	2000	2885	3883	4680	5930	8300	20571
2007	306	5297	1889	2000	3125	4056	5050	6108	8261	16706
2008	366	4578	1131	1938	3000	3800	4465	5200	6730	8632
2009	396	4752	888	2160	3385	4114	4772	5260	6258	8154
2010	434	5083	1125	2000	3425	4353	5000	5762	7233	8240
2011	487	5189	1286	2000	3444	4381	5070	5776	7385	12994



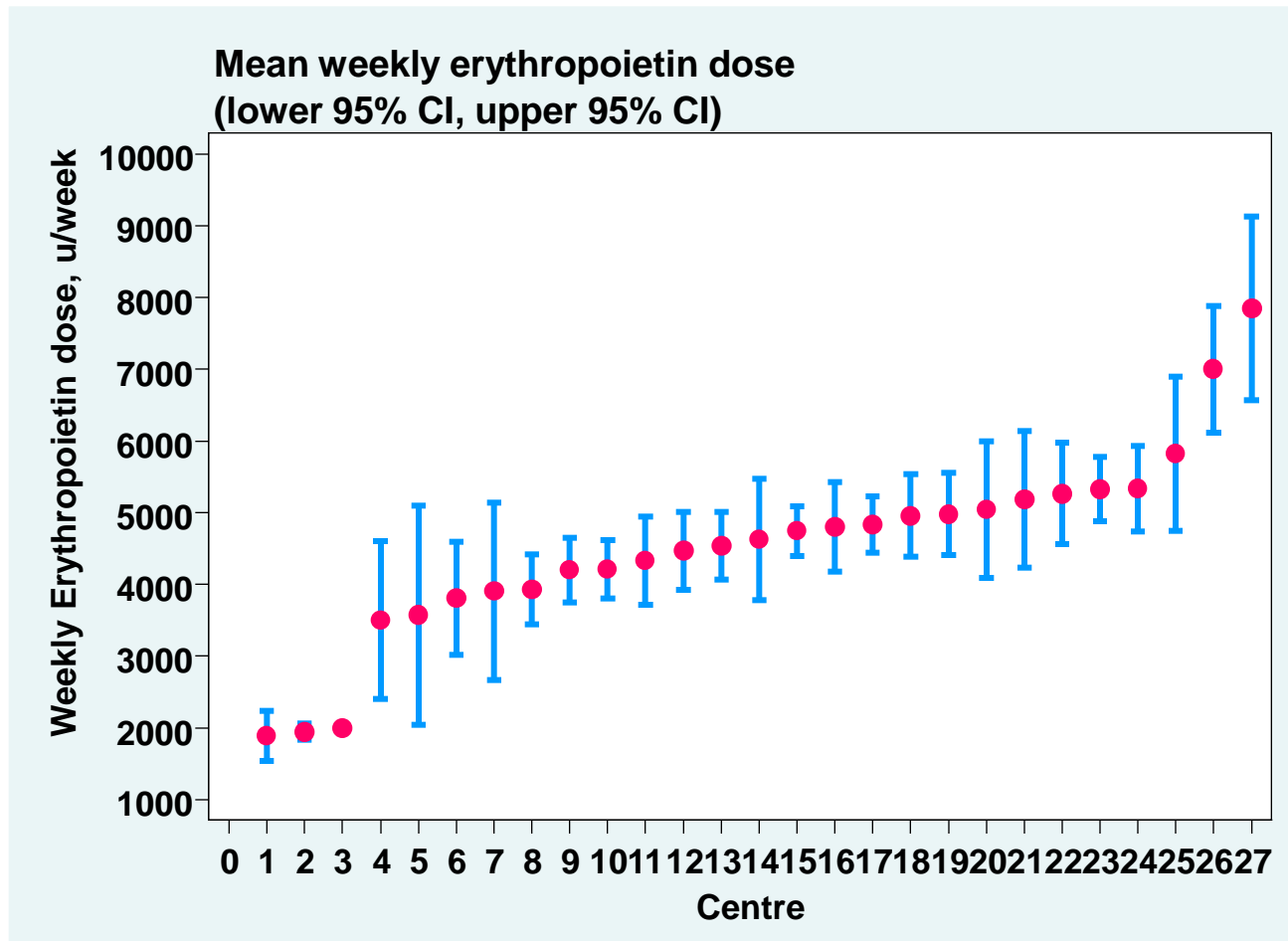
**Figure 6.1.5: Variation in mean weekly ESAs dose (u/week) among HD centres, 2011**



**Table 6.1.6: Variation in mean weekly ESAs dose (u/week) among PD centres, 2002-2011**

Year	Number of centres	Mean	SD	Min	5 <sup>th</sup> centile	LQ	Median	UQ	95 <sup>th</sup> centile	Max
2002	12	2601	536	1857	1857	2240	2453	3050	3453	3453
2003	16	2595	396	2057	2057	2279	2563	2888	3575	3575
2004	17	2603	431	2074	2074	2400	2600	2696	3958	3958
2005	18	3437	1573	2000	2000	2286	2688	4124	7371	7371
2006	21	4643	1180	2308	2667	4091	5023	5441	5965	6373
2007	22	4981	1024	3250	3429	4182	5081	5702	6471	7090
2008	22	4537	989	2500	2970	3852	4448	5344	6051	6239
2009	23	4357	947	2320	2667	3968	4630	4836	5289	6595
2010	25	4400	973	2364	2667	4063	4342	4927	6066	6481
2011	27	4521	1323	1885	1947	3905	4630	5183	7000	7849

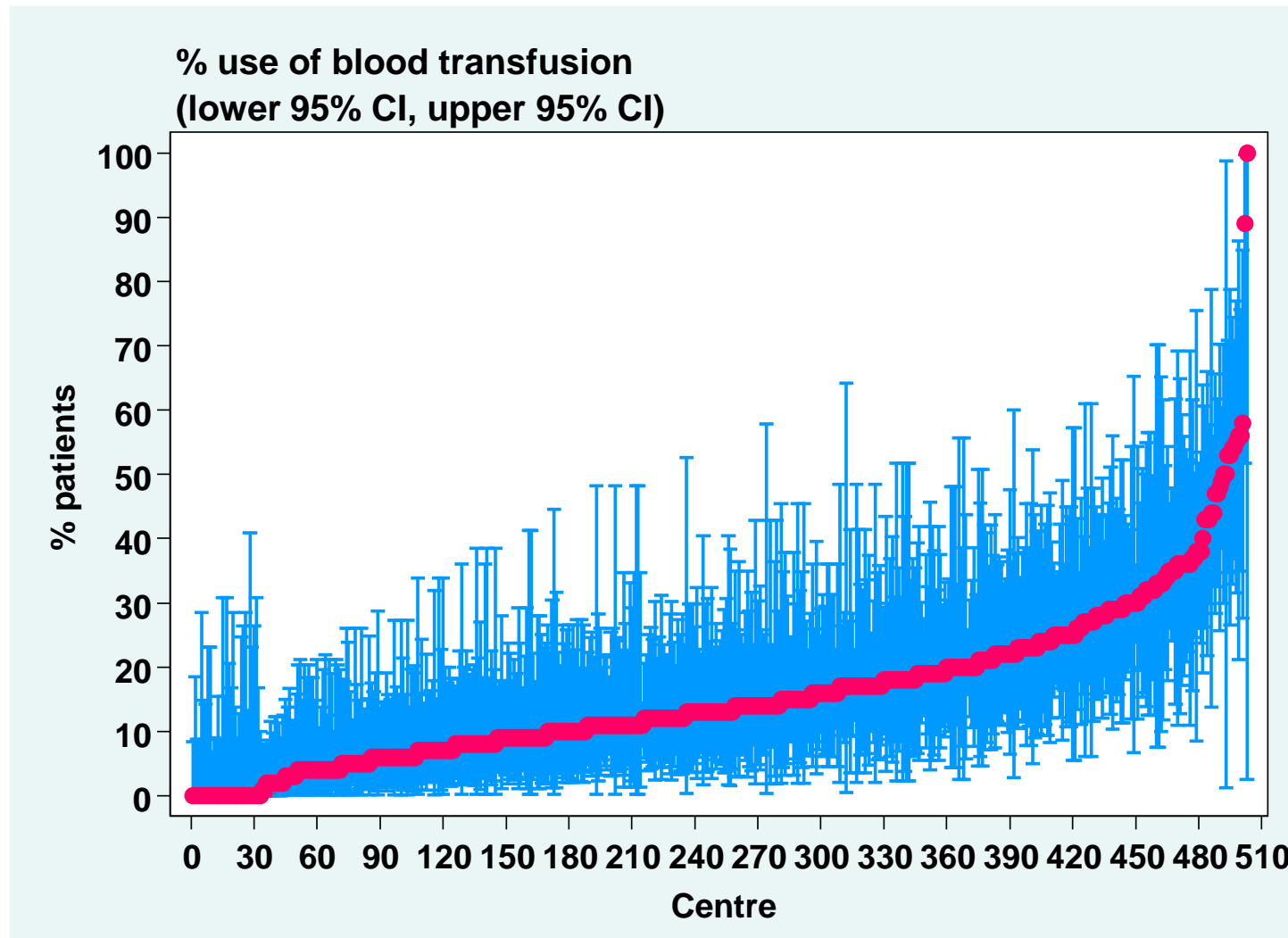
**Figure 6.1.6: Variation in mean weekly ESAs dose (u/week) among PD centres 2011**



**Table 6.1.7: Variation in use of blood transfusion (% patients) among HD centres, 2002-2011**

<b>Year</b>	<b>Number of centres</b>	<b>Min</b>	<b>5<sup>th</sup> centile</b>	<b>LQ</b>	<b>Median</b>	<b>UQ</b>	<b>95<sup>th</sup> centile</b>	<b>Max</b>
<b>2002</b>	<b>153</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>7</b>	<b>14</b>	<b>26</b>	<b>67</b>
<b>2003</b>	<b>184</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>9</b>	<b>19</b>	<b>33</b>	<b>63</b>
<b>2004</b>	<b>218</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>7</b>	<b>16</b>	<b>39</b>	<b>48</b>
<b>2005</b>	<b>245</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>11</b>	<b>20</b>	<b>40</b>	<b>75</b>
<b>2006</b>	<b>288</b>	<b>0</b>	<b>3</b>	<b>10.5</b>	<b>17.5</b>	<b>29</b>	<b>47</b>	<b>89</b>
<b>2007</b>	<b>320</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>14.5</b>	<b>24</b>	<b>42</b>	<b>100</b>
<b>2008</b>	<b>377</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>16</b>	<b>27</b>	<b>47</b>	<b>100</b>
<b>2009</b>	<b>413</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>14</b>	<b>23</b>	<b>44</b>	<b>100</b>
<b>2010</b>	<b>451</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>13</b>	<b>23</b>	<b>44</b>	<b>100</b>
<b>2011</b>	<b>503</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>13</b>	<b>21</b>	<b>37</b>	<b>100</b>

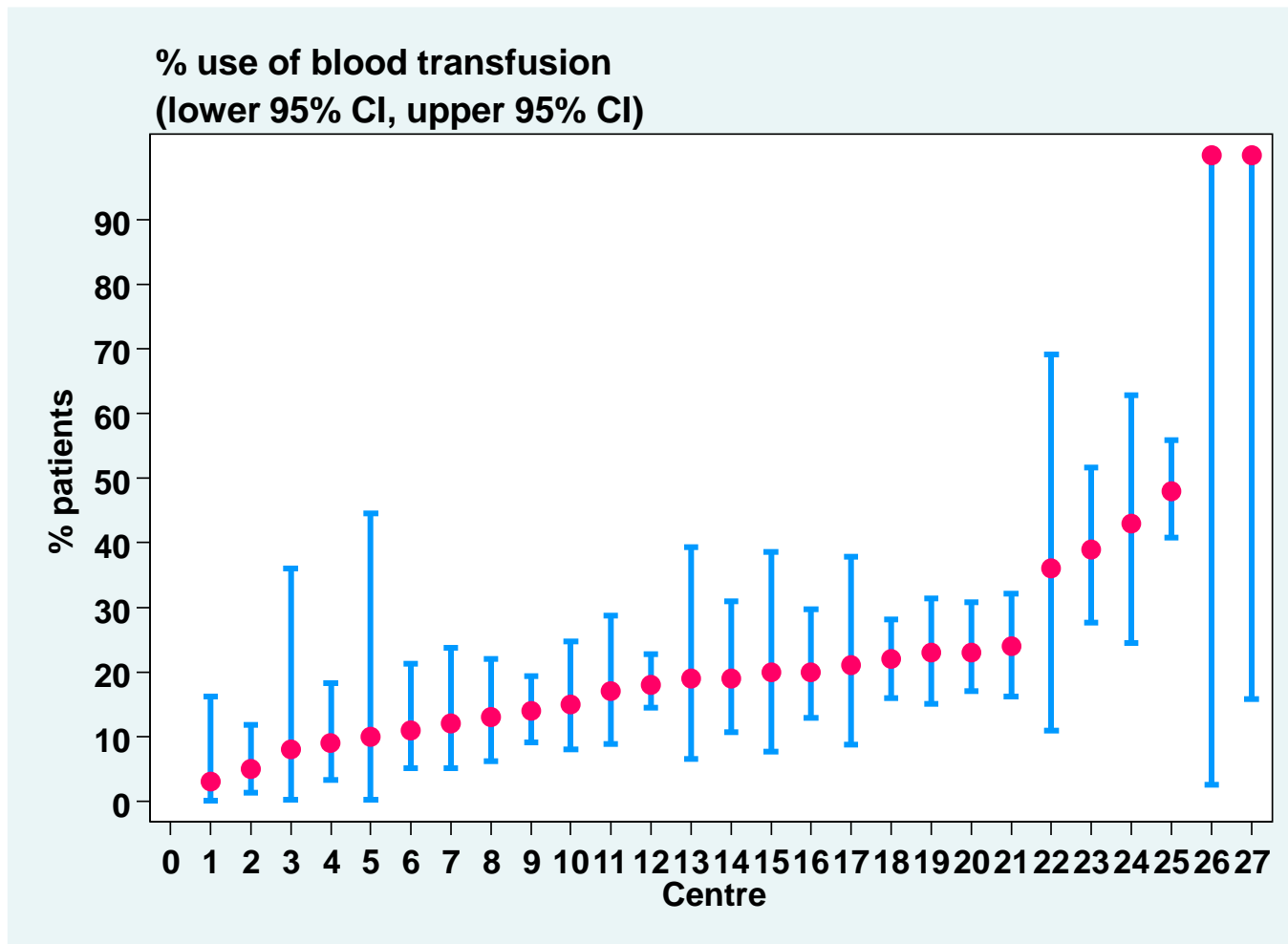
**Figure 6.1.7: Variation in use of blood transfusion (% patients) among HD centres, 2011**



**Table 6.1.8: Variation in use of blood transfusion (% patients) among PD centres, 2002-2011**

<b>Year</b>	<b>Number of centres</b>	<b>Min</b>	<b>5<sup>th</sup> centile</b>	<b>LQ</b>	<b>Median</b>	<b>UQ</b>	<b>95<sup>th</sup> centile</b>	<b>Max</b>
<b>2002</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>8</b>	<b>21</b>	<b>42</b>	<b>42</b>
<b>2003</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>10.5</b>	<b>21</b>	<b>59</b>	<b>59</b>
<b>2004</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>15</b>	<b>20</b>	<b>37</b>	<b>37</b>
<b>2005</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>11</b>	<b>17</b>	<b>44</b>	<b>44</b>
<b>2006</b>	<b>22</b>	<b>0</b>	<b>3</b>	<b>9</b>	<b>16.5</b>	<b>27</b>	<b>36</b>	<b>48</b>
<b>2007</b>	<b>23</b>	<b>6</b>	<b>7</b>	<b>11</b>	<b>18</b>	<b>24</b>	<b>34</b>	<b>36</b>
<b>2008</b>	<b>23</b>	<b>2</b>	<b>4</b>	<b>7</b>	<b>15</b>	<b>28</b>	<b>35</b>	<b>40</b>
<b>2009</b>	<b>24</b>	<b>0</b>	<b>3</b>	<b>10</b>	<b>15.5</b>	<b>25.5</b>	<b>32</b>	<b>41</b>
<b>2010</b>	<b>25</b>	<b>0</b>	<b>1</b>	<b>9</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
<b>2011</b>	<b>27</b>	<b>3</b>	<b>5</b>	<b>12</b>	<b>19</b>	<b>24</b>	<b>100</b>	<b>100</b>

**Figure 6.1.8: Variation in use of blood transfusion (% patients) among PD centres, 2011**

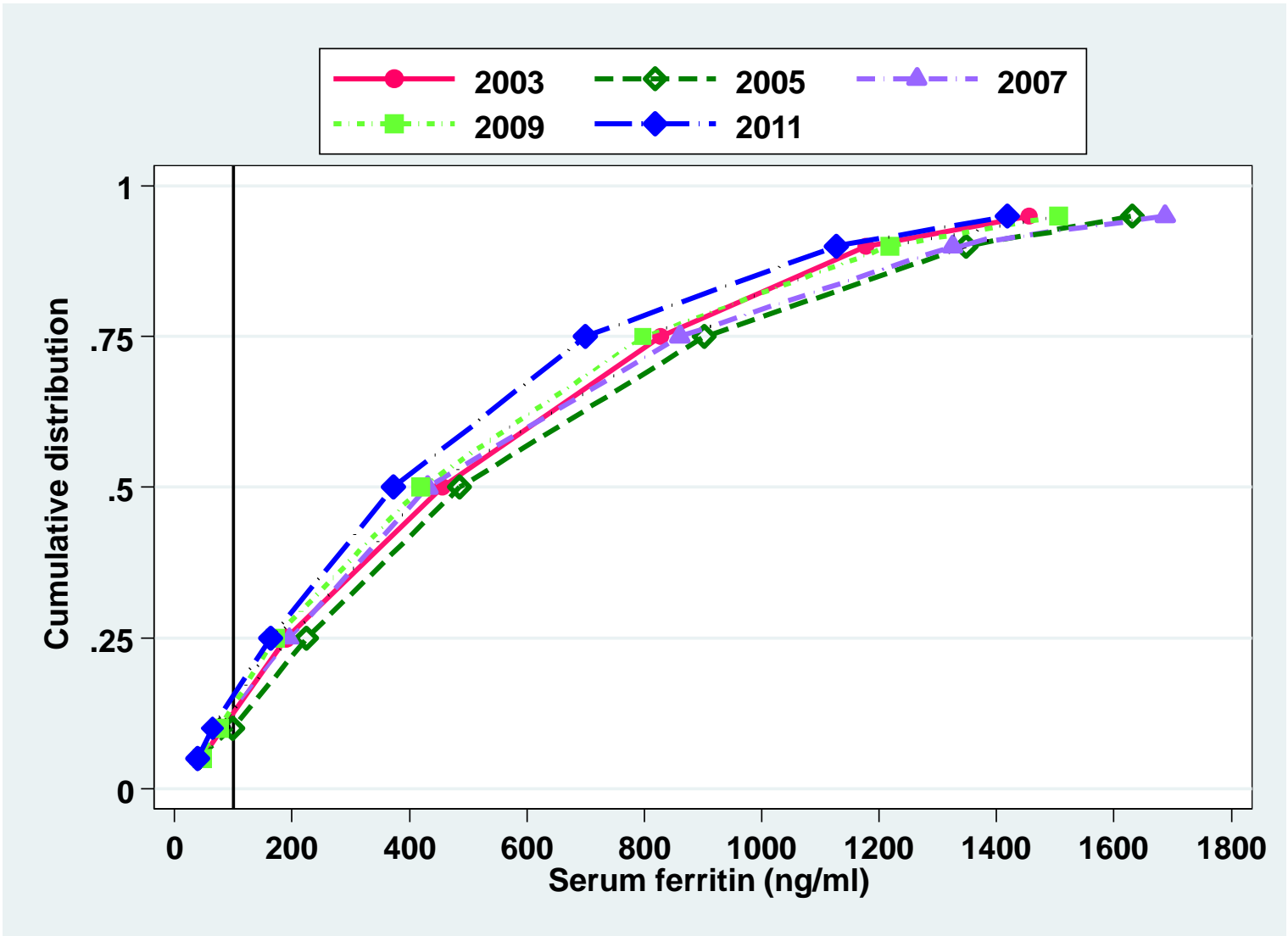


**Table 6.2.1: Distribution of serum ferritin without ESAs, HD patients 2002-2011**

<b>Year</b>	<b>Number of patients</b>	<b>Mean</b>	<b>SD</b>	<b>Median</b>	<b>LQ</b>	<b>UQ</b>	<b>% Patients <math>\geq 100</math> ng/ml</b>	<b>% Patients <math>\geq 200</math> ng/ml</b>
<b>2002</b>	<b>803</b>	<b>519.5</b>	<b>447.3</b>	<b>373</b>	<b>168.5</b>	<b>781</b>	<b>85</b>	<b>71</b>
<b>2003</b>	<b>916</b>	<b>551.5</b>	<b>434.2</b>	<b>456.7</b>	<b>190</b>	<b>827.7</b>	<b>87</b>	<b>74</b>
<b>2004</b>	<b>1042</b>	<b>590.7</b>	<b>463.6</b>	<b>473.5</b>	<b>218</b>	<b>910.5</b>	<b>89</b>	<b>77</b>
<b>2005</b>	<b>1010</b>	<b>618.5</b>	<b>498.7</b>	<b>485.5</b>	<b>225</b>	<b>902</b>	<b>90</b>	<b>77</b>
<b>2006</b>	<b>1169</b>	<b>562.4</b>	<b>485.6</b>	<b>408</b>	<b>193.8</b>	<b>817.5</b>	<b>87</b>	<b>74</b>
<b>2007</b>	<b>1182</b>	<b>586</b>	<b>501</b>	<b>431</b>	<b>196</b>	<b>860.9</b>	<b>86</b>	<b>75</b>
<b>2008</b>	<b>1186</b>	<b>578</b>	<b>489.9</b>	<b>431.9</b>	<b>197</b>	<b>838.1</b>	<b>87</b>	<b>75</b>
<b>2009</b>	<b>1283</b>	<b>546.6</b>	<b>461.7</b>	<b>419.7</b>	<b>171</b>	<b>798</b>	<b>87</b>	<b>71</b>
<b>2010</b>	<b>1387</b>	<b>510</b>	<b>454.2</b>	<b>372</b>	<b>159.7</b>	<b>755.6</b>	<b>84</b>	<b>69</b>
<b>2011</b>	<b>1582</b>	<b>497.5</b>	<b>439.9</b>	<b>373</b>	<b>163</b>	<b>700</b>	<b>84</b>	<b>70</b>



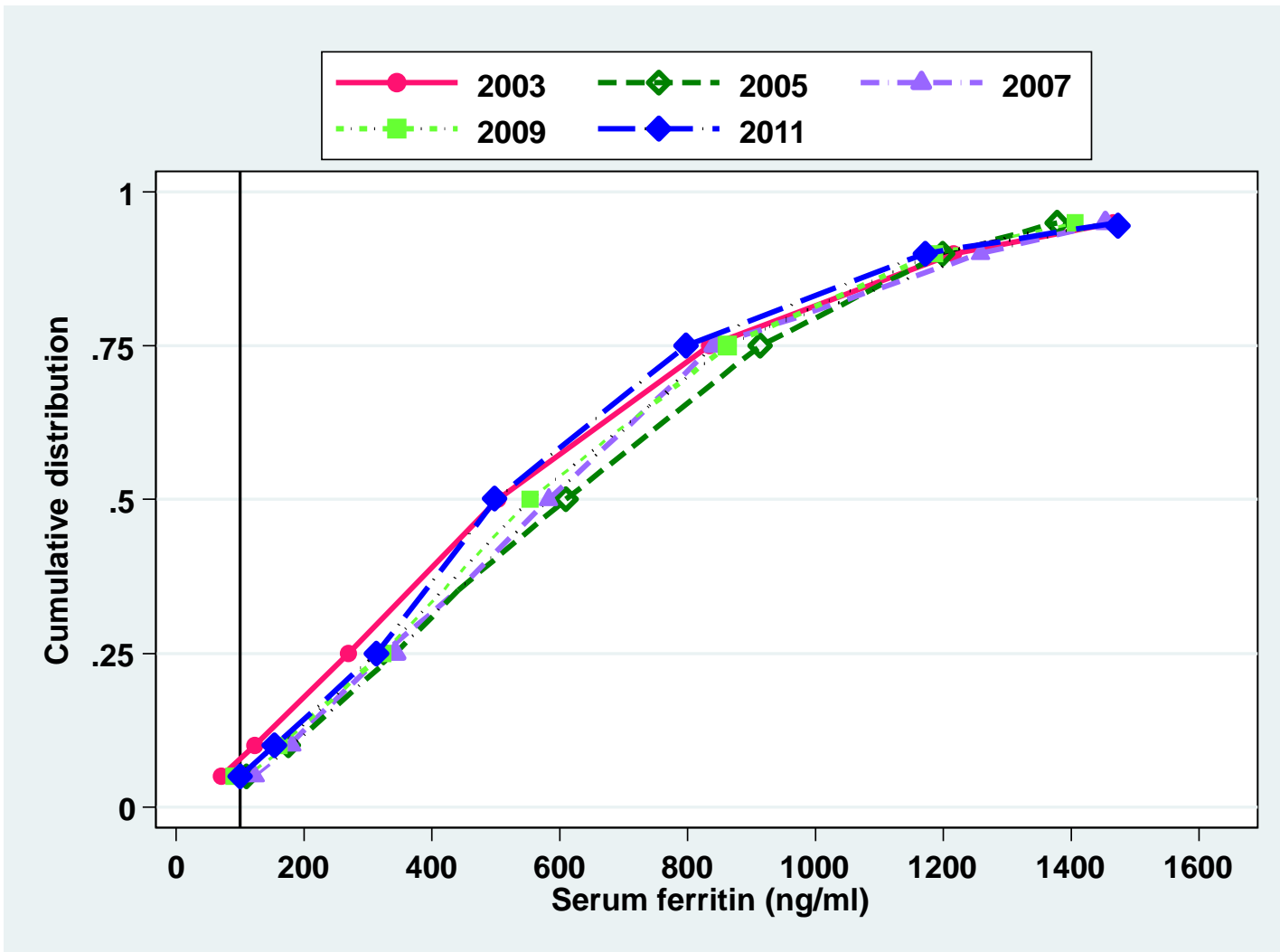
**Figure 6.2.1: Cumulative Distribution of serum ferritin without ESAs, HD patients 2002-2011**



**Table 6.2.2: Distribution of serum ferritin without ESAs, PD patients 2002-2011**

<b>Year</b>	<b>Number of patients</b>	<b>Mean</b>	<b>SD</b>	<b>Median</b>	<b>LQ</b>	<b>UQ</b>	<b>% Patients <math>\geq 100</math> ng/ml</b>	<b>% Patients <math>\geq 200</math> ng/ml</b>
2002	236	634.8	491.2	514.9	226	924.6	93	79
2003	329	602.5	429.2	503.7	269	834	93	84
2004	303	608.4	385.7	522.7	330	882	94	85
2005	225	651.4	397.8	609	324	913.3	96	88
2006	263	589.9	411.3	484	280	815.8	95	85
2007	305	636.9	396.6	582.3	342.8	841.9	96	87
2008	338	634	410.1	592	327.4	841	93	86
2009	364	621.6	401.1	553	322.5	861.8	95	86
2010	382	624.9	446.6	523.5	287.4	875.8	93	83
2011	443	600	406.7	499.4	313.7	796.8	95	87

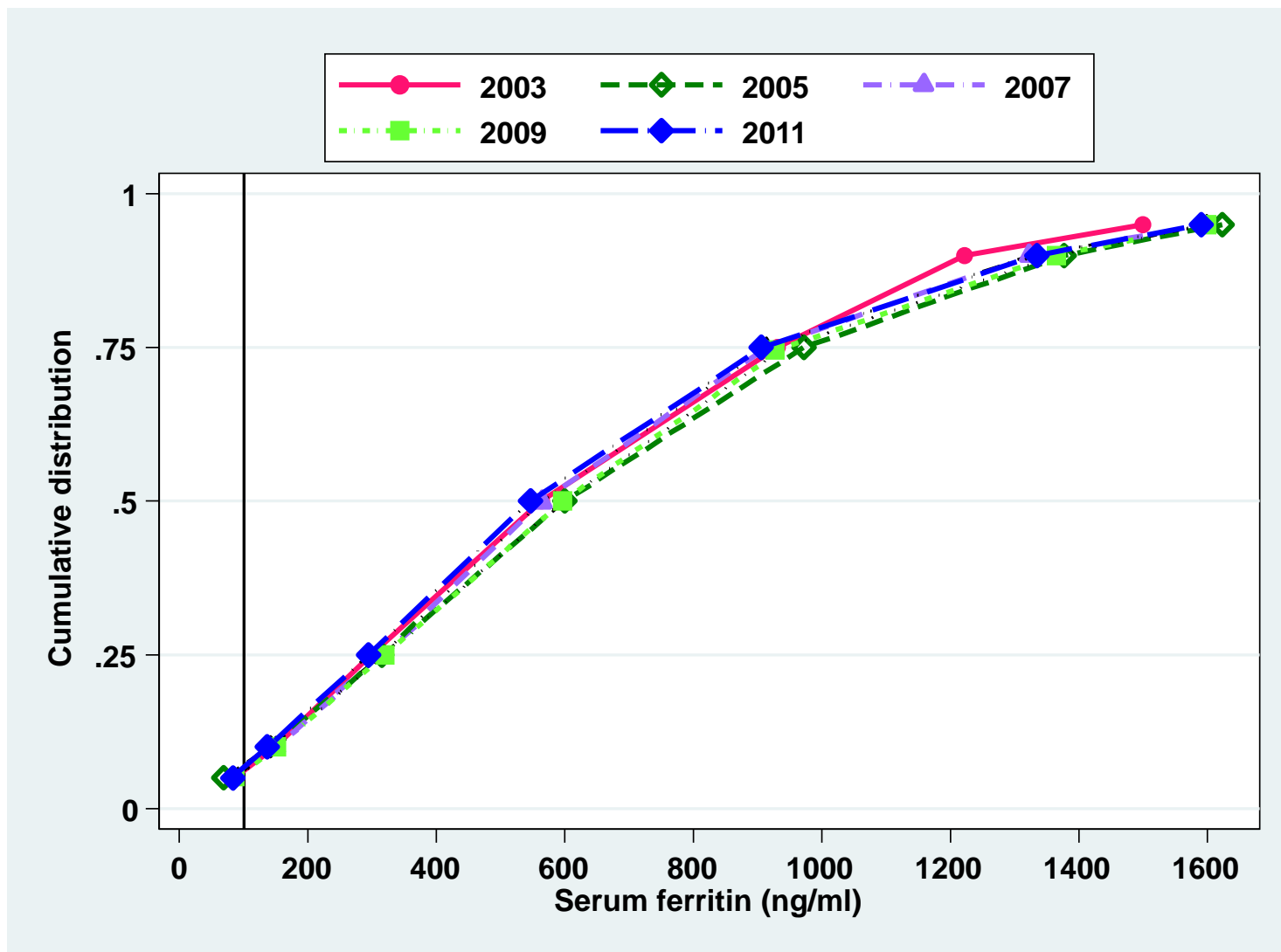
**Figure 6.2.2: Distribution of serum ferritin without ESAs, PD patients 2002-2011**



**Table 6.2.3: Distribution of serum ferritin on ESAs, HD patients  
2002-2011**

Year	Number of patients	Mean	SD	Median	LQ	UQ	% Patients $\geq 100$ ng/ml	% Patients $\geq 200$ ng/ml
2002	2224	593.1	459.3	464.8	231.3	878.2	91	79
2003	3134	640.8	428.1	563.3	298	931	94	85
2004	3904	669.7	460.4	571	306	976.5	94	86
2005	5116	682.7	471	599.5	315.3	971.5	93	85
2006	6765	640.3	459	543	291.2	881	93	84
2007	8032	658.8	452.2	564.4	315.5	914	94	86
2008	9936	703.6	469.3	611	337.5	979.6	95	87
2009	12236	679.3	459.5	596.1	319.5	942	94	86
2010	13597	679.4	470	581.8	312	958	94	85
2011	16265	648.4	459.4	546	294.1	906	93	84

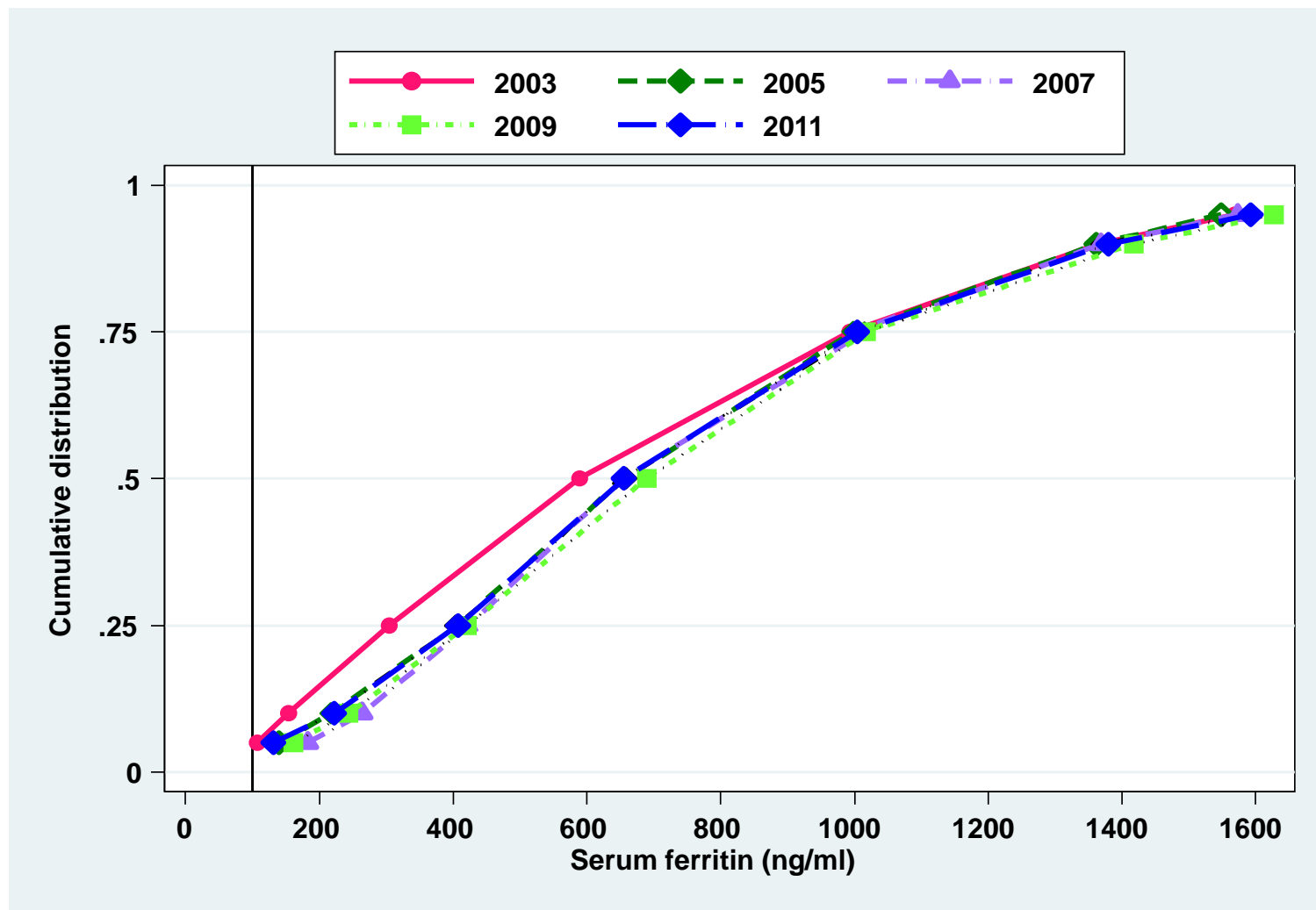
**Figure 6.2.3: Cumulative distribution of serum ferritin on ESAs, HD patients 2002-2011**



**Table 6.2.4: Distribution of serum ferritin on ESAs, PD patients  
2002-2011**

<b>Year</b>	<b>Number of patients</b>	<b>Mean</b>	<b>SD</b>	<b>Median</b>	<b>LQ</b>	<b>UQ</b>	<b>% Patients <math>\geq 100</math> ng/ml</b>	<b>% Patients <math>\geq 200</math> ng/ml</b>
<b>2002</b>	<b>345</b>	<b>666.8</b>	<b>462.4</b>	<b>538.5</b>	<b>284</b>	<b>999.5</b>	<b>94</b>	<b>85</b>
<b>2003</b>	<b>517</b>	<b>689.9</b>	<b>459.9</b>	<b>589</b>	<b>304</b>	<b>993.2</b>	<b>96</b>	<b>85</b>
<b>2004</b>	<b>540</b>	<b>728.8</b>	<b>427.2</b>	<b>655.6</b>	<b>406.3</b>	<b>986.7</b>	<b>98</b>	<b>92</b>
<b>2005</b>	<b>767</b>	<b>732.9</b>	<b>433.6</b>	<b>659</b>	<b>403.6</b>	<b>997.5</b>	<b>97</b>	<b>92</b>
<b>2006</b>	<b>888</b>	<b>729.9</b>	<b>435.6</b>	<b>638.4</b>	<b>399.5</b>	<b>986.2</b>	<b>98</b>	<b>94</b>
<b>2007</b>	<b>1091</b>	<b>741.3</b>	<b>426.1</b>	<b>652</b>	<b>423.8</b>	<b>1015</b>	<b>98</b>	<b>94</b>
<b>2008</b>	<b>1310</b>	<b>758.4</b>	<b>445.4</b>	<b>668.6</b>	<b>422.4</b>	<b>1030.3</b>	<b>98</b>	<b>93</b>
<b>2009</b>	<b>1390</b>	<b>759.5</b>	<b>438.7</b>	<b>689</b>	<b>421.1</b>	<b>1017.5</b>	<b>98</b>	<b>93</b>
<b>2010</b>	<b>1554</b>	<b>753.3</b>	<b>438</b>	<b>677.1</b>	<b>426.3</b>	<b>1005.5</b>	<b>97</b>	<b>93</b>
<b>2011</b>	<b>1681</b>	<b>732.8</b>	<b>439.1</b>	<b>655.1</b>	<b>407.5</b>	<b>1003.8</b>	<b>97</b>	<b>92</b>

**Figure 6.2.4: Cumulative distribution of serum ferritin on ESAs, PD patients 2002-2011**

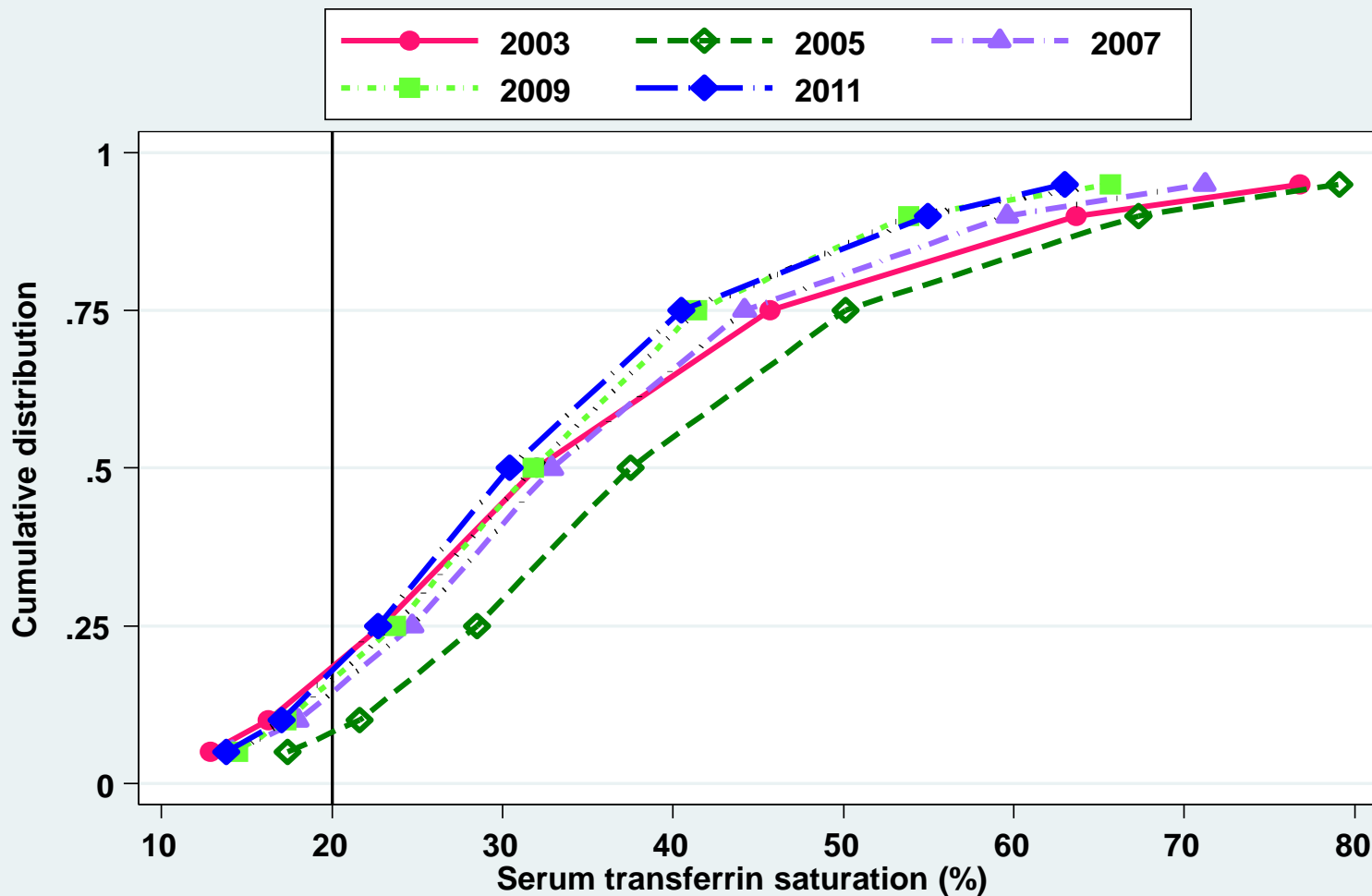


**Table 6.2.5: Distribution of transferrin saturation without ESAs, HD patients, 2002-2011**

<b>Year</b>	<b>Number of patients</b>	<b>Mean</b>	<b>SD</b>	<b>Median</b>	<b>LQ</b>	<b>UQ</b>	<b>% Patients <math>\geq 20</math> %</b>
<b>2002</b>	<b>811</b>	<b>36.5</b>	<b>18.9</b>	<b>32</b>	<b>22.9</b>	<b>45.7</b>	<b>83</b>
<b>2003</b>	<b>922</b>	<b>40.3</b>	<b>18.6</b>	<b>36.1</b>	<b>27.2</b>	<b>51.2</b>	<b>91</b>
<b>2004</b>	<b>1031</b>	<b>41.2</b>	<b>18.1</b>	<b>37.5</b>	<b>28.5</b>	<b>50.1</b>	<b>92</b>
<b>2005</b>	<b>1106</b>	<b>37.7</b>	<b>17.8</b>	<b>34.4</b>	<b>25.6</b>	<b>46.2</b>	<b>87</b>
<b>2006</b>	<b>1149</b>	<b>36.2</b>	<b>16.9</b>	<b>32.9</b>	<b>24.7</b>	<b>44.2</b>	<b>87</b>
<b>2007</b>	<b>1206</b>	<b>36.1</b>	<b>16.5</b>	<b>32.5</b>	<b>25</b>	<b>43.7</b>	<b>87</b>
<b>2008</b>	<b>1211</b>	<b>34.3</b>	<b>15.5</b>	<b>31.8</b>	<b>23.7</b>	<b>41.4</b>	<b>85</b>
<b>2009</b>	<b>1282</b>	<b>34.3</b>	<b>15.9</b>	<b>31.4</b>	<b>24.1</b>	<b>40.8</b>	<b>85</b>
<b>2010</b>	<b>1442</b>	<b>33.5</b>	<b>15.6</b>	<b>30.4</b>	<b>22.7</b>	<b>40.5</b>	<b>83</b>
<b>2011</b>	<b>1568</b>	<b>32.4</b>	<b>14.7</b>	<b>29.7</b>	<b>22.9</b>	<b>38.3</b>	<b>85</b>



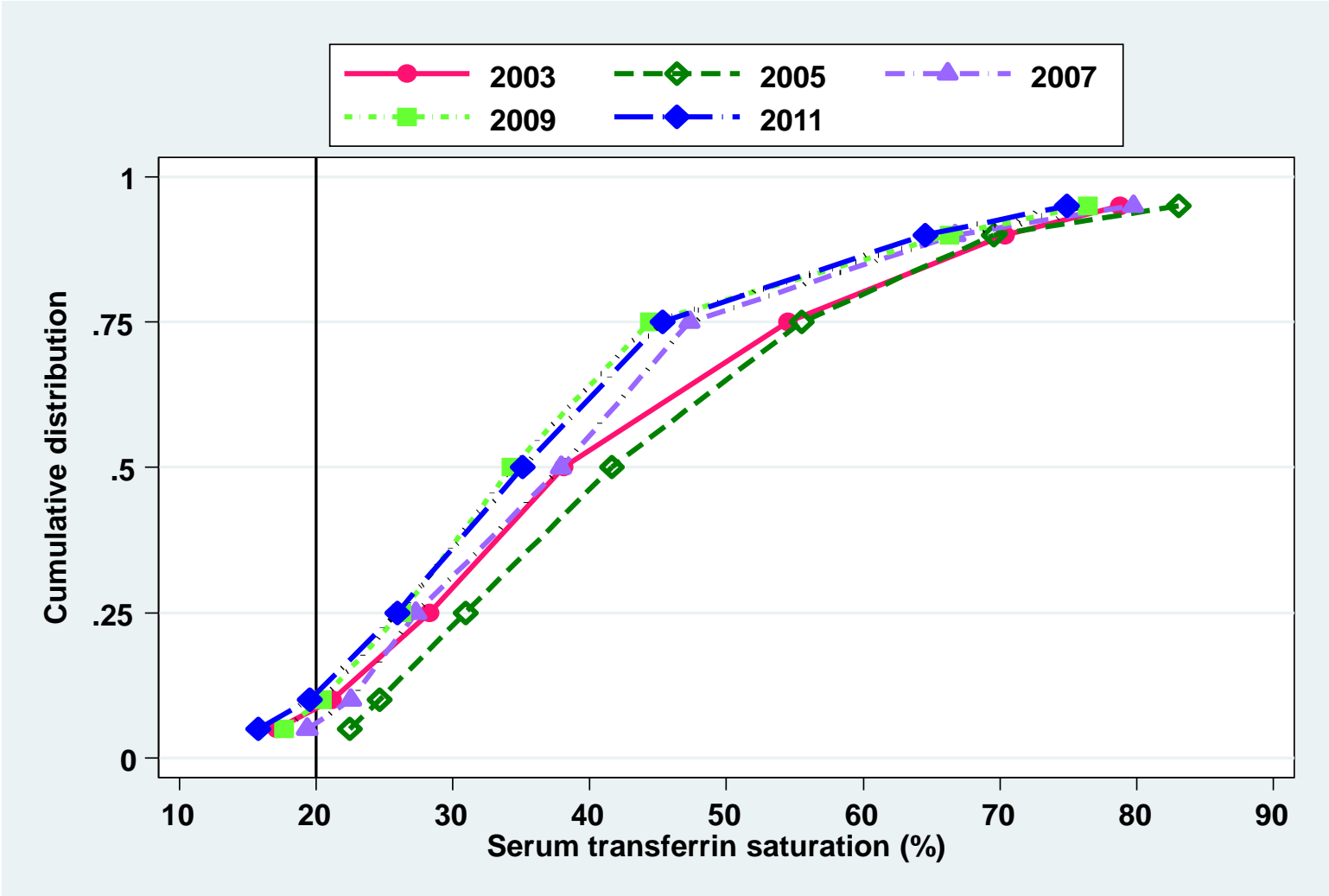
**Figure 6.2.5: Cumulative distribution of transferrin saturation without ESAs, HD patients 2002-2011**



**Table 6.2.6: Distribution of transferrin saturation without ESAs, PD patients, 2002-2011**

<b>Year</b>	<b>Number of patients</b>	<b>Mean</b>	<b>SD</b>	<b>Median</b>	<b>LQ</b>	<b>UQ</b>	<b>% Patients <math>\geq 20</math> %</b>
<b>2002</b>	<b>332</b>	<b>42.7</b>	<b>19.1</b>	<b>38.1</b>	<b>28.3</b>	<b>54.5</b>	<b>92</b>
<b>2003</b>	<b>397</b>	<b>45.2</b>	<b>19.7</b>	<b>41.2</b>	<b>31.4</b>	<b>58.1</b>	<b>93</b>
<b>2004</b>	<b>379</b>	<b>44.5</b>	<b>18.2</b>	<b>41.6</b>	<b>30.9</b>	<b>55.5</b>	<b>98</b>
<b>2005</b>	<b>287</b>	<b>40.6</b>	<b>16.2</b>	<b>37.8</b>	<b>29.4</b>	<b>48.2</b>	<b>95</b>
<b>2006</b>	<b>299</b>	<b>40.5</b>	<b>17.4</b>	<b>37.9</b>	<b>27.3</b>	<b>47.3</b>	<b>95</b>
<b>2007</b>	<b>348</b>	<b>40.3</b>	<b>17.9</b>	<b>36.6</b>	<b>27.5</b>	<b>48.2</b>	<b>92</b>
<b>2008</b>	<b>349</b>	<b>38.2</b>	<b>17.8</b>	<b>34.3</b>	<b>26.2</b>	<b>44.4</b>	<b>91</b>
<b>2009</b>	<b>439</b>	<b>38.4</b>	<b>18.2</b>	<b>36.1</b>	<b>26.4</b>	<b>45.7</b>	<b>87</b>
<b>2010</b>	<b>441</b>	<b>38.3</b>	<b>17.8</b>	<b>35.1</b>	<b>25.9</b>	<b>45.3</b>	<b>89</b>
<b>2011</b>	<b>424</b>	<b>36.8</b>	<b>15.8</b>	<b>33.2</b>	<b>26.5</b>	<b>45.5</b>	<b>90</b>

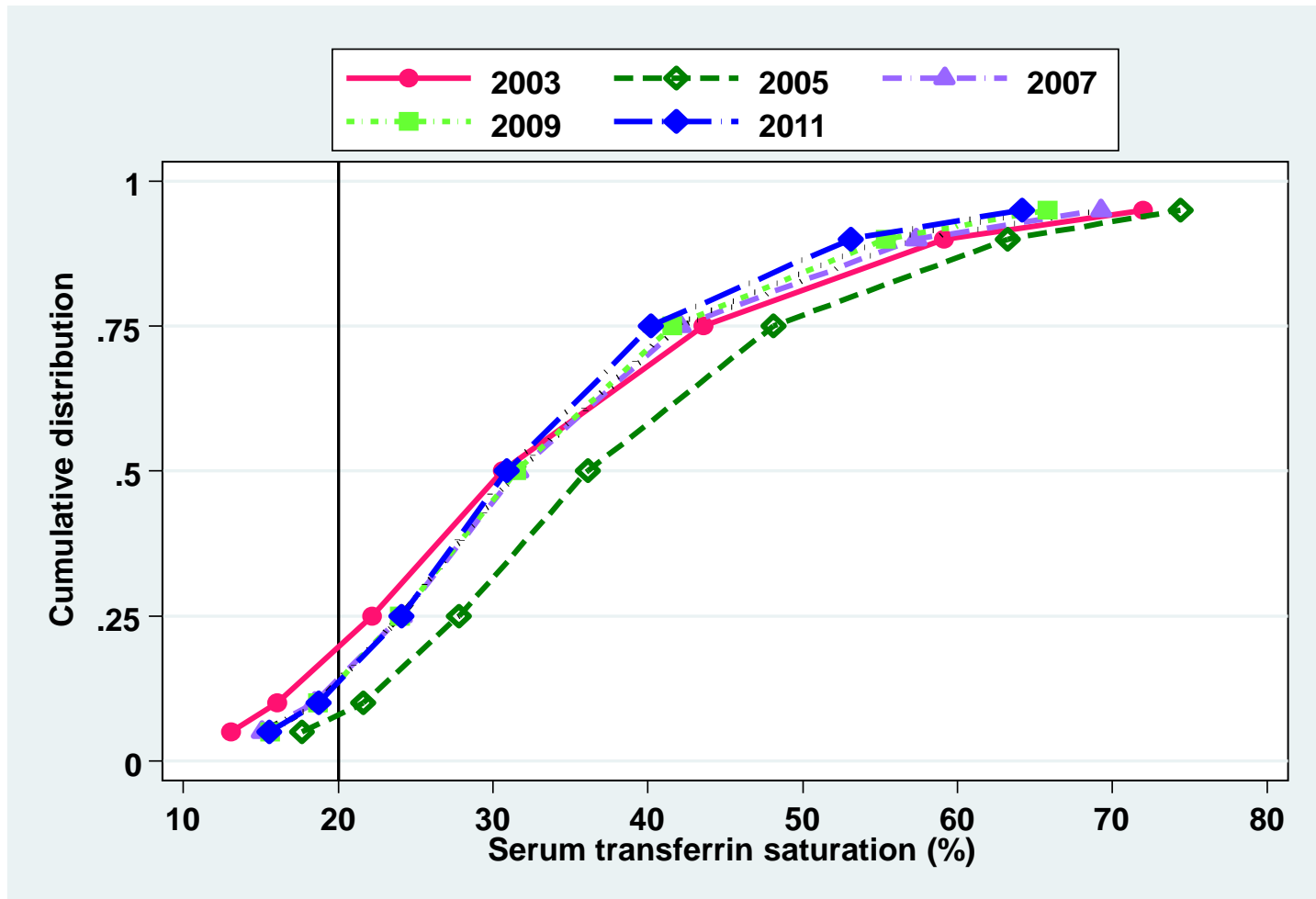
**Figure 6.2.6: Cumulative distribution of transferrin saturation without ESAs, PD patients 2002-2011**



**Table 6.2.7: Distribution of transferrin saturation on ESAs, HD patients, 2002-2011**

<b>Year</b>	<b>Number of patients</b>	<b>Mean</b>	<b>SD</b>	<b>Median</b>	<b>LQ</b>	<b>UQ</b>	<b>% Patients <math>\geq 20</math> %</b>
<b>2002</b>	<b>1995</b>	<b>34.6</b>	<b>17.6</b>	<b>30.6</b>	<b>22.2</b>	<b>43.6</b>	<b>81</b>
<b>2003</b>	<b>2641</b>	<b>39.6</b>	<b>18.4</b>	<b>35.9</b>	<b>26.6</b>	<b>48.8</b>	<b>90</b>
<b>2004</b>	<b>3269</b>	<b>39.6</b>	<b>17</b>	<b>36.1</b>	<b>27.8</b>	<b>48.1</b>	<b>93</b>
<b>2005</b>	<b>4808</b>	<b>36.6</b>	<b>17.2</b>	<b>32.8</b>	<b>24.6</b>	<b>45</b>	<b>87</b>
<b>2006</b>	<b>6384</b>	<b>35.1</b>	<b>16.4</b>	<b>31.6</b>	<b>24.1</b>	<b>42.1</b>	<b>87</b>
<b>2007</b>	<b>7604</b>	<b>34.7</b>	<b>15.4</b>	<b>31.6</b>	<b>24.4</b>	<b>41.6</b>	<b>88</b>
<b>2008</b>	<b>9535</b>	<b>34.7</b>	<b>15.4</b>	<b>31.5</b>	<b>24</b>	<b>41.6</b>	<b>87</b>
<b>2009</b>	<b>11850</b>	<b>34</b>	<b>15.4</b>	<b>30.9</b>	<b>23.8</b>	<b>40.5</b>	<b>86</b>
<b>2010</b>	<b>13761</b>	<b>34</b>	<b>15</b>	<b>30.9</b>	<b>24.1</b>	<b>40.2</b>	<b>87</b>
<b>2011</b>	<b>16295</b>	<b>32.6</b>	<b>14.3</b>	<b>29.7</b>	<b>23.1</b>	<b>38.8</b>	<b>85</b>

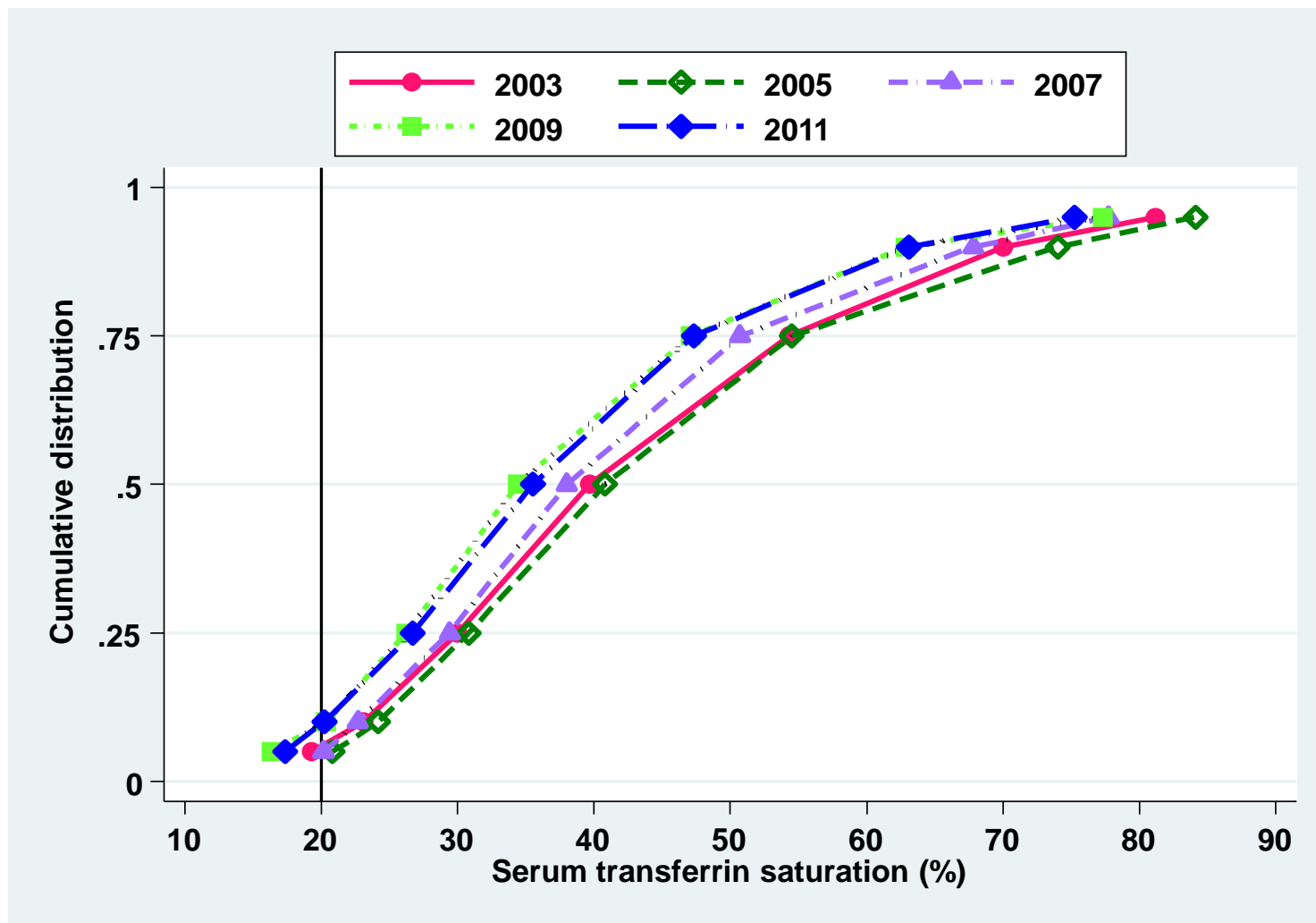
**Figure 6.2.7: Cumulative distribution of transferrin saturation on ESAs, HD patients 2002-2011**



**Table 6.2.8: Distribution of transferrin saturation on ESAs, PD patients, 2002-2011**

<b>Year</b>	<b>Number of patients</b>	<b>Mean</b>	<b>SD</b>	<b>Median</b>	<b>LQ</b>	<b>UQ</b>	<b>% Patients <math>\geq 20</math> %</b>
<b>2002</b>	<b>363</b>	<b>43.6</b>	<b>18.6</b>	<b>39.7</b>	<b>30</b>	<b>54.3</b>	<b>94</b>
<b>2003</b>	<b>460</b>	<b>44.6</b>	<b>17.8</b>	<b>40.4</b>	<b>31.7</b>	<b>55.7</b>	<b>96</b>
<b>2004</b>	<b>697</b>	<b>44.7</b>	<b>18.7</b>	<b>40.8</b>	<b>30.8</b>	<b>54.5</b>	<b>96</b>
<b>2005</b>	<b>820</b>	<b>43.5</b>	<b>19.3</b>	<b>39.1</b>	<b>29.4</b>	<b>53.7</b>	<b>95</b>
<b>2006</b>	<b>916</b>	<b>41.6</b>	<b>17.5</b>	<b>38</b>	<b>29.4</b>	<b>50.7</b>	<b>95</b>
<b>2007</b>	<b>1080</b>	<b>39.3</b>	<b>17.6</b>	<b>35.3</b>	<b>26.9</b>	<b>47.3</b>	<b>92</b>
<b>2008</b>	<b>1265</b>	<b>38.6</b>	<b>17.9</b>	<b>34.4</b>	<b>26.2</b>	<b>47.1</b>	<b>91</b>
<b>2009</b>	<b>1550</b>	<b>39.1</b>	<b>17.3</b>	<b>35.4</b>	<b>26.9</b>	<b>47.5</b>	<b>92</b>
<b>2010</b>	<b>1628</b>	<b>38.9</b>	<b>17.5</b>	<b>35.5</b>	<b>26.7</b>	<b>47.3</b>	<b>91</b>
<b>2011</b>	<b>1679</b>	<b>36.5</b>	<b>15.5</b>	<b>34.1</b>	<b>25.4</b>	<b>44.8</b>	<b>88</b>

**Figure 6.2.8: Cumulative distribution of transferrin saturation on ESAs, PD patients 2002-2011**

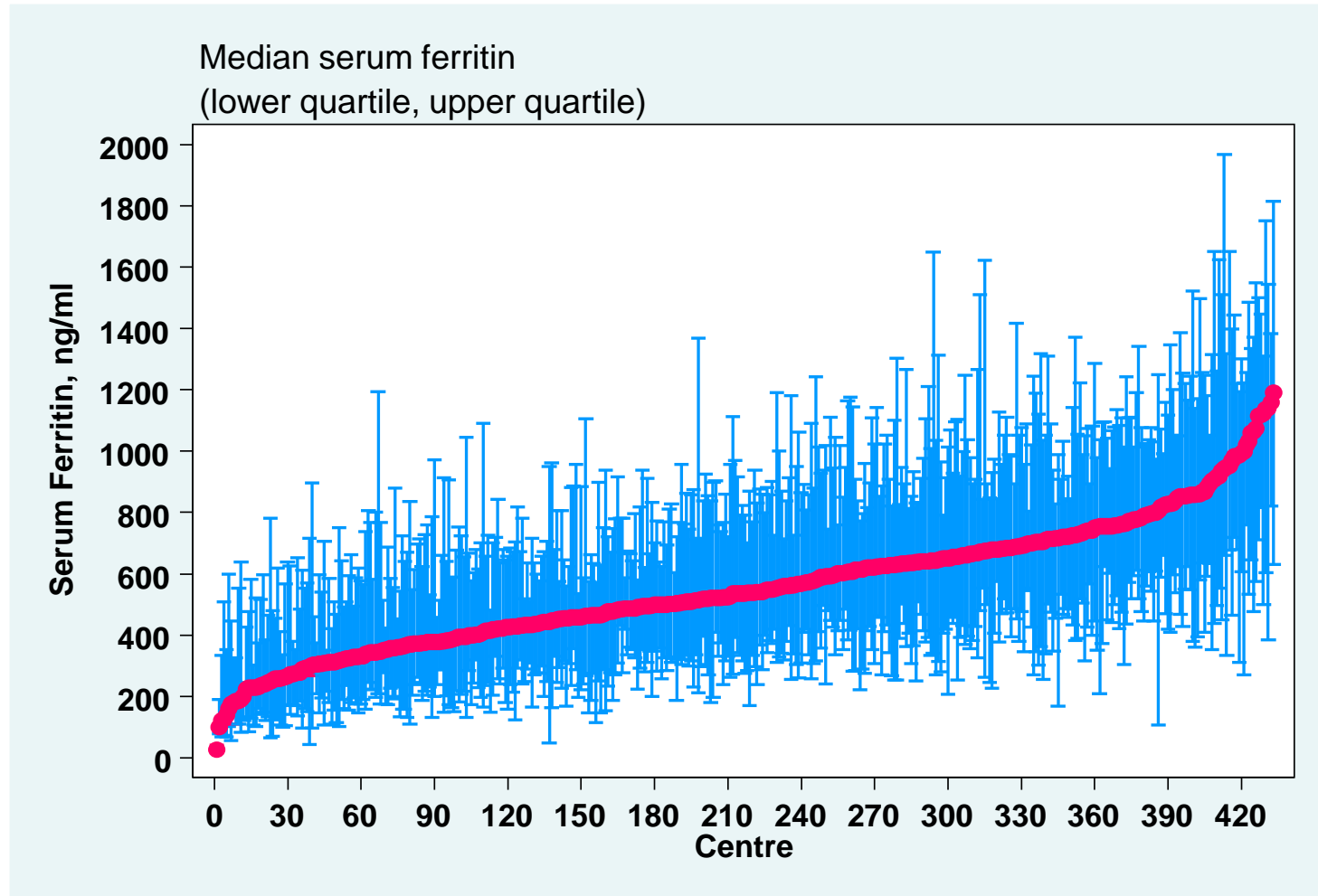


**Table 6.2.9 (a): Variation in Medium serum ferritin among patients on ESAs, HD centres 2002-2011**

<b>Year</b>	<b>Number of centres</b>	<b>Min</b>	<b>5<sup>th</sup> centile</b>	<b>LQ</b>	<b>Median</b>	<b>UQ</b>	<b>95<sup>th</sup> centile</b>	<b>Max</b>
<b>2002</b>	<b>69</b>	<b>117.6</b>	<b>185</b>	<b>363.3</b>	<b>459.5</b>	<b>607.5</b>	<b>828.5</b>	<b>1031</b>
<b>2003</b>	<b>102</b>	<b>152.5</b>	<b>302.8</b>	<b>463</b>	<b>562.5</b>	<b>703</b>	<b>950.1</b>	<b>1787.5</b>
<b>2004</b>	<b>125</b>	<b>99.5</b>	<b>328.5</b>	<b>451</b>	<b>563.5</b>	<b>735</b>	<b>981.5</b>	<b>2000</b>
<b>2005</b>	<b>164</b>	<b>1.6</b>	<b>302</b>	<b>464.8</b>	<b>629.5</b>	<b>734</b>	<b>950.8</b>	<b>2000</b>
<b>2006</b>	<b>207</b>	<b>1.5</b>	<b>235</b>	<b>411.4</b>	<b>547.5</b>	<b>691.3</b>	<b>907</b>	<b>2000</b>
<b>2007</b>	<b>242</b>	<b>92.7</b>	<b>254.3</b>	<b>431</b>	<b>561.8</b>	<b>689.8</b>	<b>880.5</b>	<b>1405</b>
<b>2008</b>	<b>282</b>	<b>92.2</b>	<b>320</b>	<b>478.5</b>	<b>592.3</b>	<b>719.2</b>	<b>934.7</b>	<b>1398.3</b>
<b>2009</b>	<b>336</b>	<b>101.7</b>	<b>298.8</b>	<b>456.6</b>	<b>589.8</b>	<b>721.6</b>	<b>908.8</b>	<b>1532.3</b>
<b>2010</b>	<b>370</b>	<b>35.5</b>	<b>260.3</b>	<b>431.9</b>	<b>568.1</b>	<b>728.1</b>	<b>981.8</b>	<b>1236.5</b>
<b>2011</b>	<b>433</b>	<b>27</b>	<b>245</b>	<b>404.7</b>	<b>536.8</b>	<b>683</b>	<b>934.5</b>	<b>1191</b>



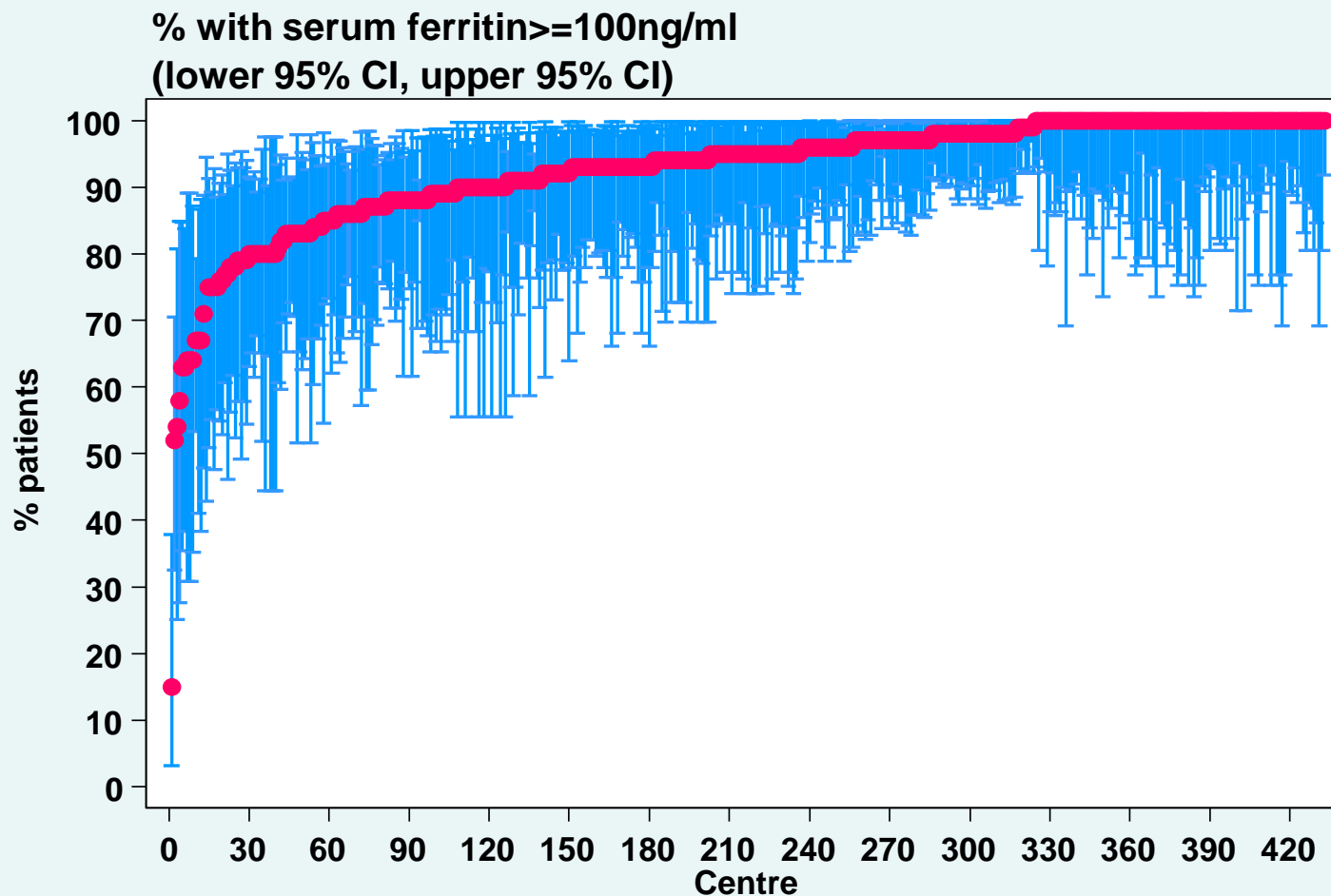
**Figure 6.2.9(a): Variation in medium serum ferritin among patients on ESAs, HD centres 2011**



**Table 6.2.9 (b): Proportion of patients on ESAs with serum ferritin  $\geq 200$  ng/ml, HD centres**

<b>Year</b>	<b>No. of centres</b>	<b>Min</b>	<b>5<sup>th</sup> centile</b>	<b>LQ</b>	<b>Median</b>	<b>UQ</b>	<b>95<sup>th</sup> centile</b>	<b>Max</b>
<b>2002</b>	<b>69</b>	<b>30</b>	<b>47</b>	<b>73</b>	<b>82</b>	<b>89</b>	<b>97</b>	<b>100</b>
<b>2003</b>	<b>102</b>	<b>43</b>	<b>64</b>	<b>78</b>	<b>87</b>	<b>92</b>	<b>100</b>	<b>100</b>
<b>2004</b>	<b>125</b>	<b>38</b>	<b>71</b>	<b>81</b>	<b>88</b>	<b>94</b>	<b>100</b>	<b>100</b>
<b>2005</b>	<b>164</b>	<b>0</b>	<b>64</b>	<b>80</b>	<b>88</b>	<b>94</b>	<b>100</b>	<b>100</b>
<b>2006</b>	<b>207</b>	<b>0</b>	<b>55</b>	<b>77</b>	<b>87</b>	<b>94</b>	<b>100</b>	<b>100</b>
<b>2007</b>	<b>242</b>	<b>15</b>	<b>58</b>	<b>79</b>	<b>89</b>	<b>95</b>	<b>100</b>	<b>100</b>
<b>2008</b>	<b>282</b>	<b>17</b>	<b>67</b>	<b>82</b>	<b>90</b>	<b>94</b>	<b>100</b>	<b>100</b>
<b>2009</b>	<b>336</b>	<b>25</b>	<b>65</b>	<b>79</b>	<b>87</b>	<b>93</b>	<b>100</b>	<b>100</b>
<b>2010</b>	<b>370</b>	<b>0</b>	<b>59</b>	<b>79</b>	<b>87</b>	<b>94</b>	<b>100</b>	<b>100</b>
<b>2011</b>	<b>433</b>	<b>15</b>	<b>56</b>	<b>76</b>	<b>87</b>	<b>93</b>	<b>100</b>	<b>100</b>

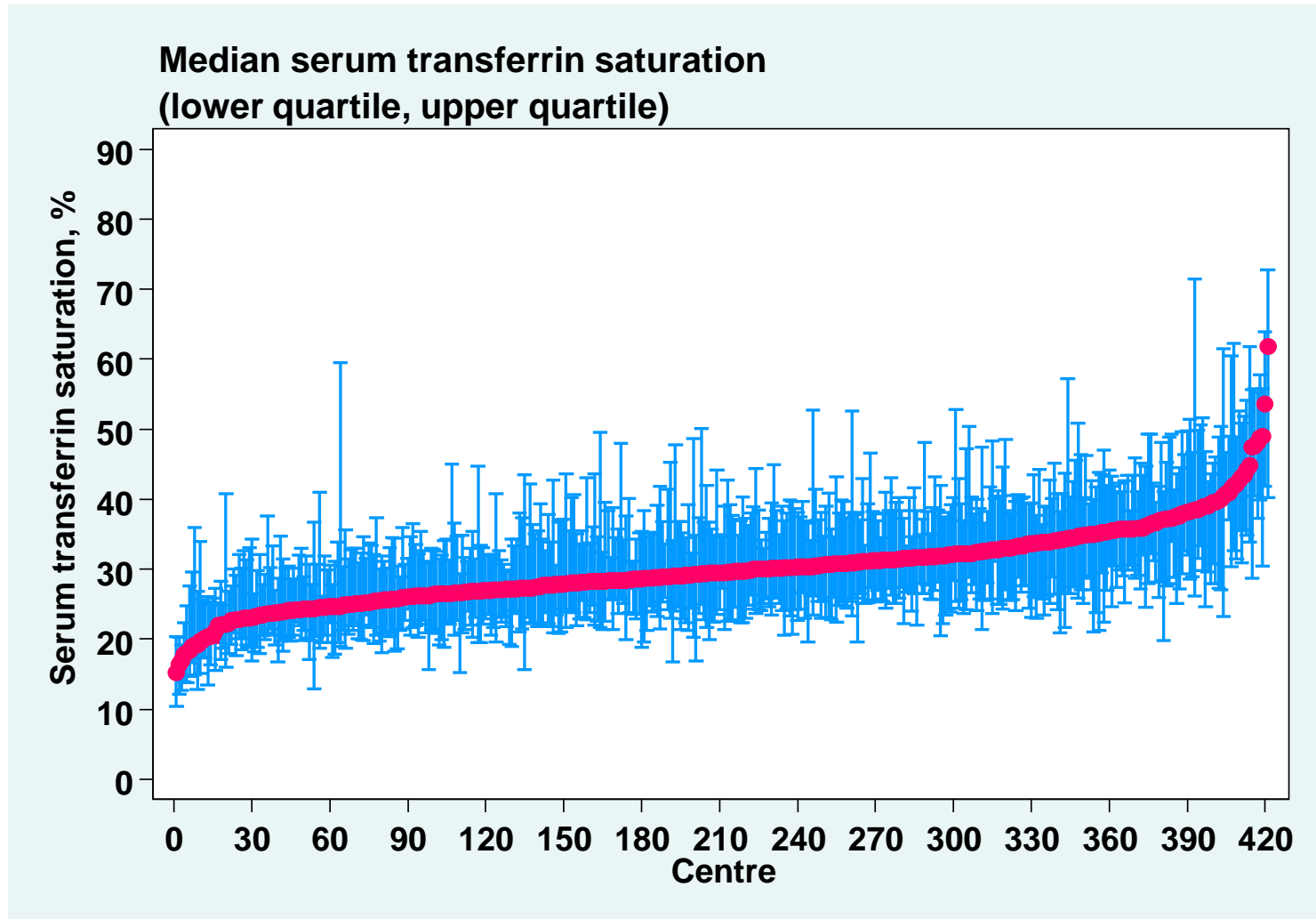
**Figure 6.2.9(b): Variation in proportion of patients on ESAs with serum ferritin  $\geq 100$  ng/ml, HD centres 2011**



**Table 6.2.9 (c): Median transferrin saturation among patients on ESAs, HD centres**

<b>Year</b>	<b>Number of centres</b>	<b>Min</b>	<b>5<sup>th</sup> centile</b>	<b>LQ</b>	<b>Median</b>	<b>UQ</b>	<b>95<sup>th</sup> centile</b>	<b>Max</b>
<b>2002</b>	<b>62</b>	<b>13.5</b>	<b>21.2</b>	<b>26</b>	<b>29.4</b>	<b>35.4</b>	<b>50.8</b>	<b>60.2</b>
<b>2003</b>	<b>91</b>	<b>18.2</b>	<b>24.9</b>	<b>31.3</b>	<b>34.4</b>	<b>41.4</b>	<b>55.6</b>	<b>69.8</b>
<b>2004</b>	<b>114</b>	<b>22.7</b>	<b>27.2</b>	<b>33</b>	<b>36.1</b>	<b>41.4</b>	<b>52</b>	<b>66.8</b>
<b>2005</b>	<b>148</b>	<b>17.3</b>	<b>25.1</b>	<b>29.3</b>	<b>32.3</b>	<b>37.3</b>	<b>48.9</b>	<b>69.8</b>
<b>2006</b>	<b>183</b>	<b>13.7</b>	<b>23.2</b>	<b>28</b>	<b>31.7</b>	<b>36.2</b>	<b>45.4</b>	<b>81.3</b>
<b>2007</b>	<b>218</b>	<b>17.6</b>	<b>21.8</b>	<b>27.9</b>	<b>31.5</b>	<b>35.7</b>	<b>42.5</b>	<b>78.1</b>
<b>2008</b>	<b>257</b>	<b>16.5</b>	<b>23.6</b>	<b>28</b>	<b>31.8</b>	<b>34.3</b>	<b>45.5</b>	<b>75.8</b>
<b>2009</b>	<b>303</b>	<b>16.9</b>	<b>23.3</b>	<b>27.4</b>	<b>30.3</b>	<b>34.3</b>	<b>41.7</b>	<b>79.1</b>
<b>2010</b>	<b>354</b>	<b>16.6</b>	<b>22.5</b>	<b>27.5</b>	<b>30.9</b>	<b>33.8</b>	<b>41.1</b>	<b>77.2</b>
<b>2011</b>	<b>421</b>	<b>15.3</b>	<b>22.7</b>	<b>26.5</b>	<b>29.5</b>	<b>32.7</b>	<b>39.6</b>	<b>61.8</b>

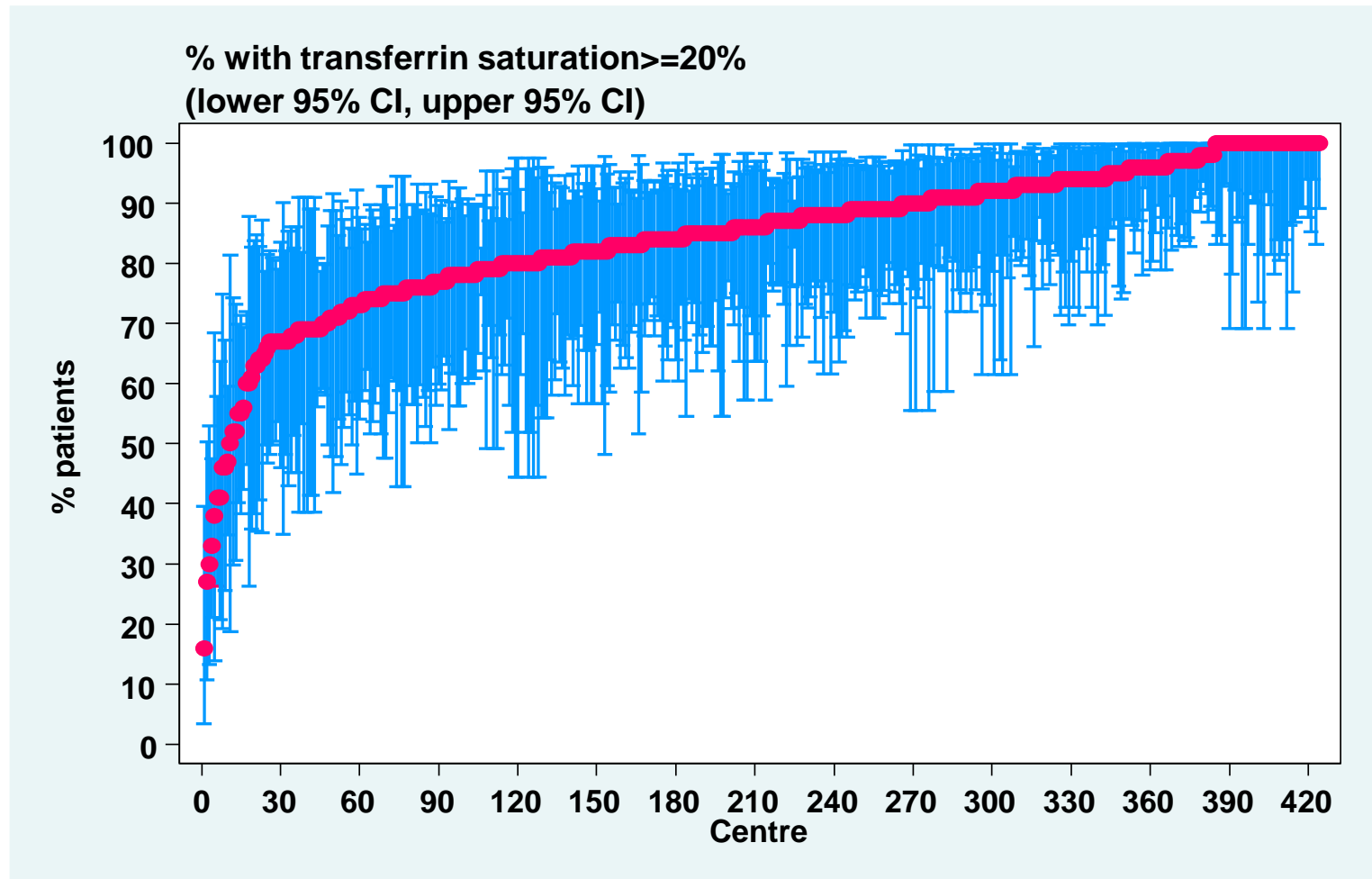
**Figure 6.2.9(c): Variation in median transferrin saturation among patients on ESAs HD centres, 2011**



**Table 6.2.9 (d): Proportion of patients on ESAs with transferrin saturation  $\geq$  20%, HD centres**

Year	Number of centres	Min	5 <sup>th</sup> centile	LQ	Median	UQ	95 <sup>th</sup> centile	Max
2002	62	27	55	69	83	92	100	100
2003	91	45	67	86	92	100	100	100
2004	114	67	73	90	94	100	100	100
2005	149	42	70	84	91	95	100	100
2006	183	20	63	80	90	95	100	100
2007	220	27	62.5	83	90	96	100	100
2008	261	13	68	81	89	95	100	100
2009	308	35	64	80	88	94	100	100
2010	355	24	63	80	89	95	100	100
2011	424	16	64	79	86	93	100	100

**Figure 6.2.9(d): Variation in proportion of patients on ESAs with transferrin saturation  $\geq 20\%$ , HD centres, 2011**

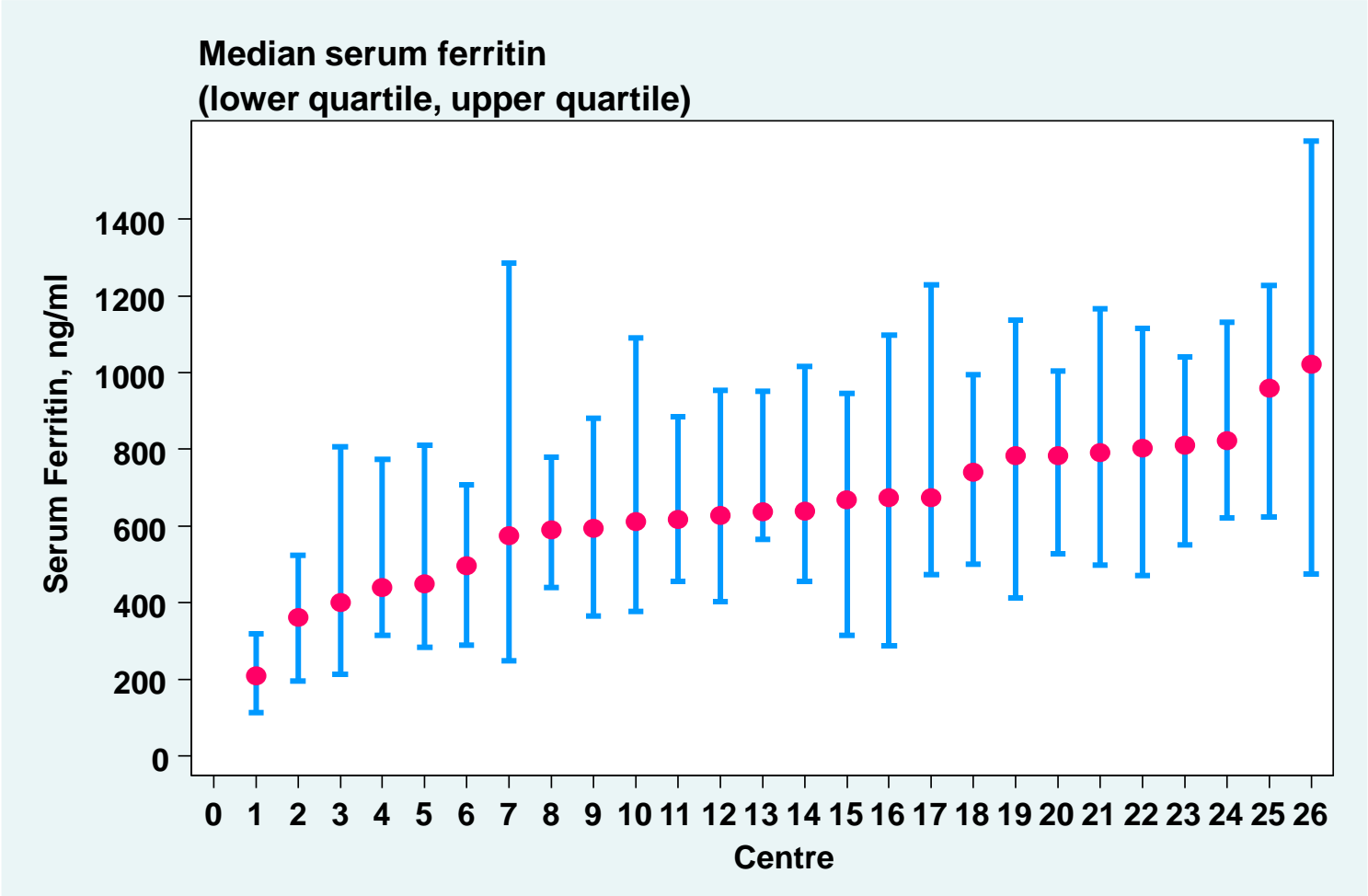


**Table 6.2.10 (a): Variation in medium serum ferritin among patients on ESAs, PD centres 2002-2011**

<b>Year</b>	<b>Number of centres</b>	<b>Min</b>	<b>5<sup>th</sup> centile</b>	<b>LQ</b>	<b>Median</b>	<b>UQ</b>	<b>95<sup>th</sup> centile</b>	<b>Max</b>
<b>2002</b>	<b>10</b>	<b>372.2</b>	<b>372.2</b>	<b>437.4</b>	<b>477</b>	<b>606.5</b>	<b>826.5</b>	<b>826.5</b>
<b>2003</b>	<b>12</b>	<b>304</b>	<b>304</b>	<b>454.5</b>	<b>508.5</b>	<b>716.1</b>	<b>954.9</b>	<b>954.9</b>
<b>2004</b>	<b>13</b>	<b>317</b>	<b>317</b>	<b>529.5</b>	<b>610</b>	<b>701.3</b>	<b>859.5</b>	<b>859.5</b>
<b>2005</b>	<b>17</b>	<b>338.5</b>	<b>338.5</b>	<b>557.2</b>	<b>710</b>	<b>800.9</b>	<b>843</b>	<b>843</b>
<b>2006</b>	<b>19</b>	<b>391.2</b>	<b>391.2</b>	<b>531</b>	<b>608.2</b>	<b>791.6</b>	<b>968.4</b>	<b>968.4</b>
<b>2007</b>	<b>21</b>	<b>290.3</b>	<b>313.4</b>	<b>592</b>	<b>633</b>	<b>716.3</b>	<b>961.7</b>	<b>1048.6</b>
<b>2008</b>	<b>21</b>	<b>309.5</b>	<b>385</b>	<b>495</b>	<b>656.3</b>	<b>801.8</b>	<b>970.1</b>	<b>991.5</b>
<b>2009</b>	<b>21</b>	<b>329.4</b>	<b>341.3</b>	<b>566</b>	<b>670.7</b>	<b>776.8</b>	<b>947</b>	<b>1167.5</b>
<b>2010</b>	<b>24</b>	<b>266.5</b>	<b>306</b>	<b>516.5</b>	<b>658.2</b>	<b>756.4</b>	<b>827.5</b>	<b>973.3</b>
<b>2011</b>	<b>26</b>	<b>209.4</b>	<b>362.2</b>	<b>574.5</b>	<b>638.4</b>	<b>783.8</b>	<b>958.7</b>	<b>1021.9</b>



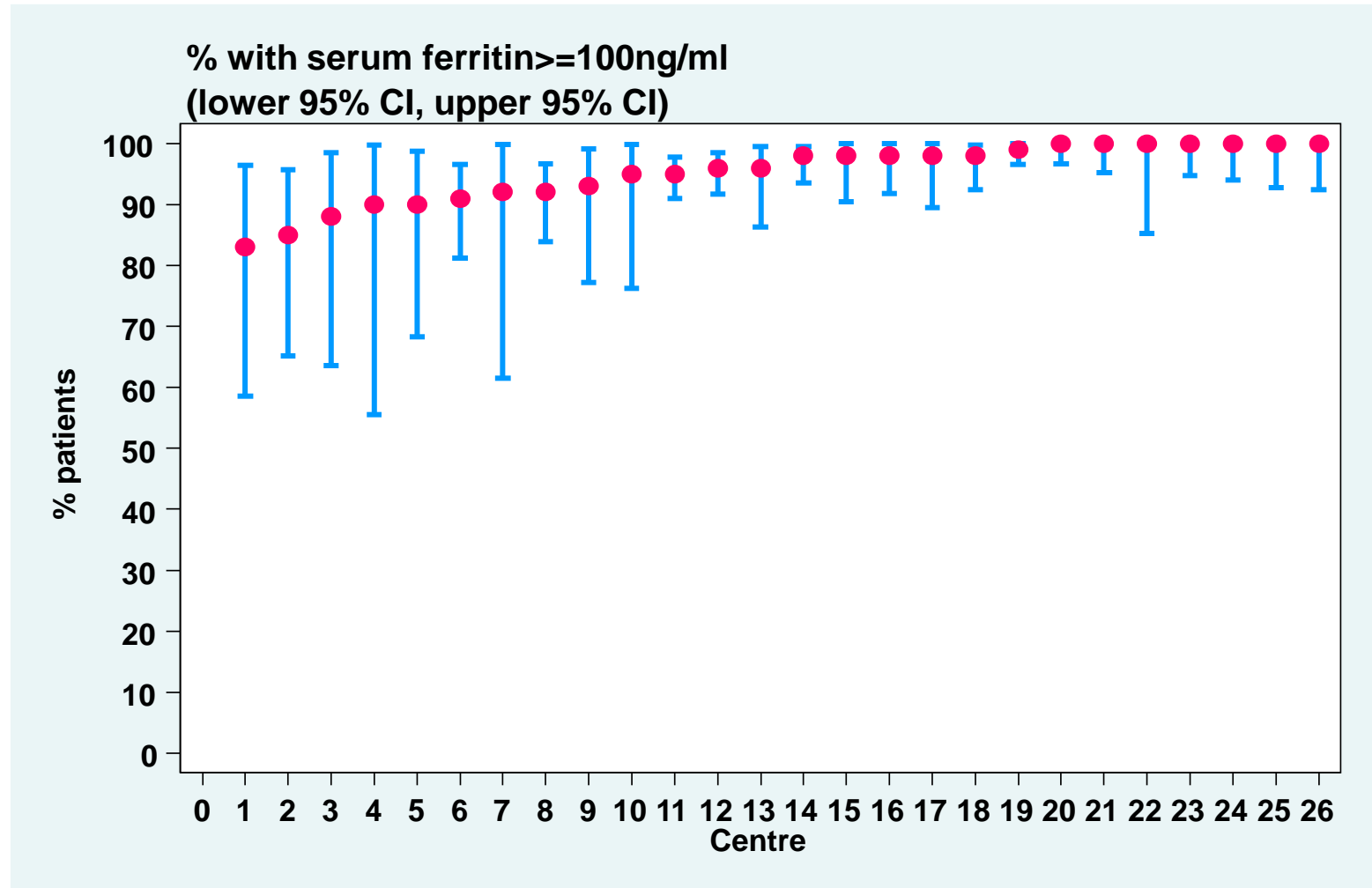
**Figure 6.2.10(a): Variation in medium serum ferritin among patients on ESAs, PD centres 2011**



**Table 6.2.10 (b): Proportion of patients on ESAs with serum ferritin  $\geq 100$  ng/ml, PD centres**

Year	Number of centres	Min	5 <sup>th</sup> centile	LQ	Median	UQ	95 <sup>th</sup> centile	Max
2002	10	91	91	92	94.5	100	100	100
2003	12	85	85	95	96	98	100	100
2004	13	93	93	95	100	100	100	100
2005	17	86	86	96	97	100	100	100
2006	19	95	95	97	100	100	100	100
2007	21	90	90	96	98	100	100	100
2008	21	87	88	93	98	100	100	100
2009	21	83	86	95	98	100	100	100
2010	24	86	87	93.5	98	99.5	100	100
2011	26	83	85	92	97	100	100	100

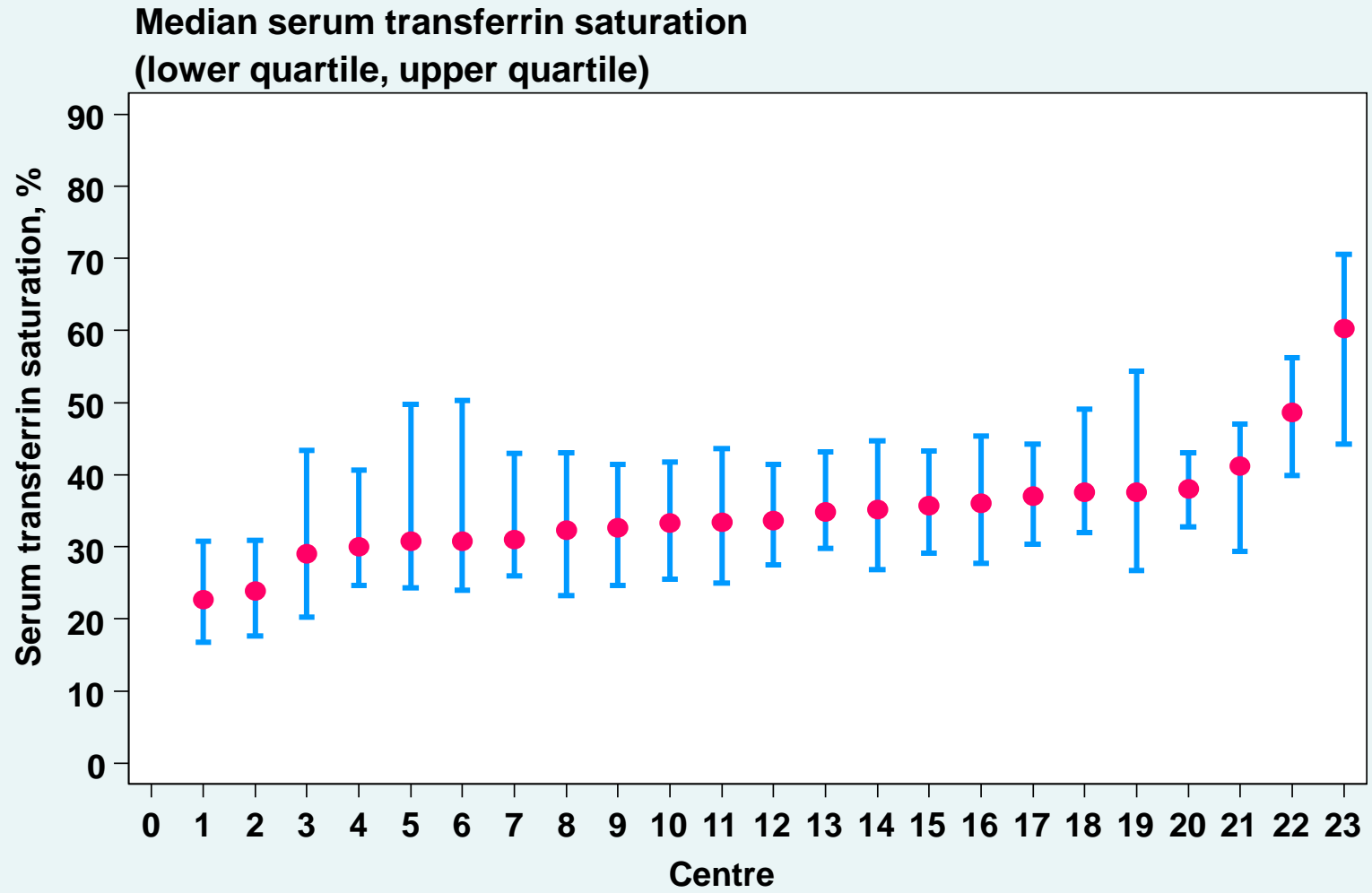
**Figure 6.2.10(b): Variation in proportion of patients on ESAs with serum ferritin  $\geq 100$ ng/ml, PD centres 2011**



**Table 6.2.10 (c): Median transferrin saturation among patients on ESAs, PD centres**

<b>Year</b>	<b>Number of centres</b>	<b>Min</b>	<b>5<sup>th</sup> centile</b>	<b>LQ</b>	<b>Median</b>	<b>UQ</b>	<b>95<sup>th</sup> centile</b>	<b>Max</b>
2002	9	30.5	30.5	36.5	38.6	40.3	60.4	60.4
2003	13	31.9	31.9	35.8	41.5	47.5	64	64
2004	17	29.1	29.1	36.1	40.6	42.7	82.3	82.3
2005	17	30.3	30.3	35.9	38.5	43.4	74.9	74.9
2006	19	31.9	31.9	34.8	37.6	40.2	75.8	75.8
2007	19	25.9	25.9	29.6	37.7	46.3	83	83
2008	19	25.2	25.2	31.6	34.2	42.9	81.1	81.1
2009	22	25	27.5	32.5	37.1	44	55.4	83.4
2010	22	23.5	25	32.5	35.7	42.2	54.2	78.5
2011	23	22.7	23.8	30.8	33.6	37.6	48.6	60.3

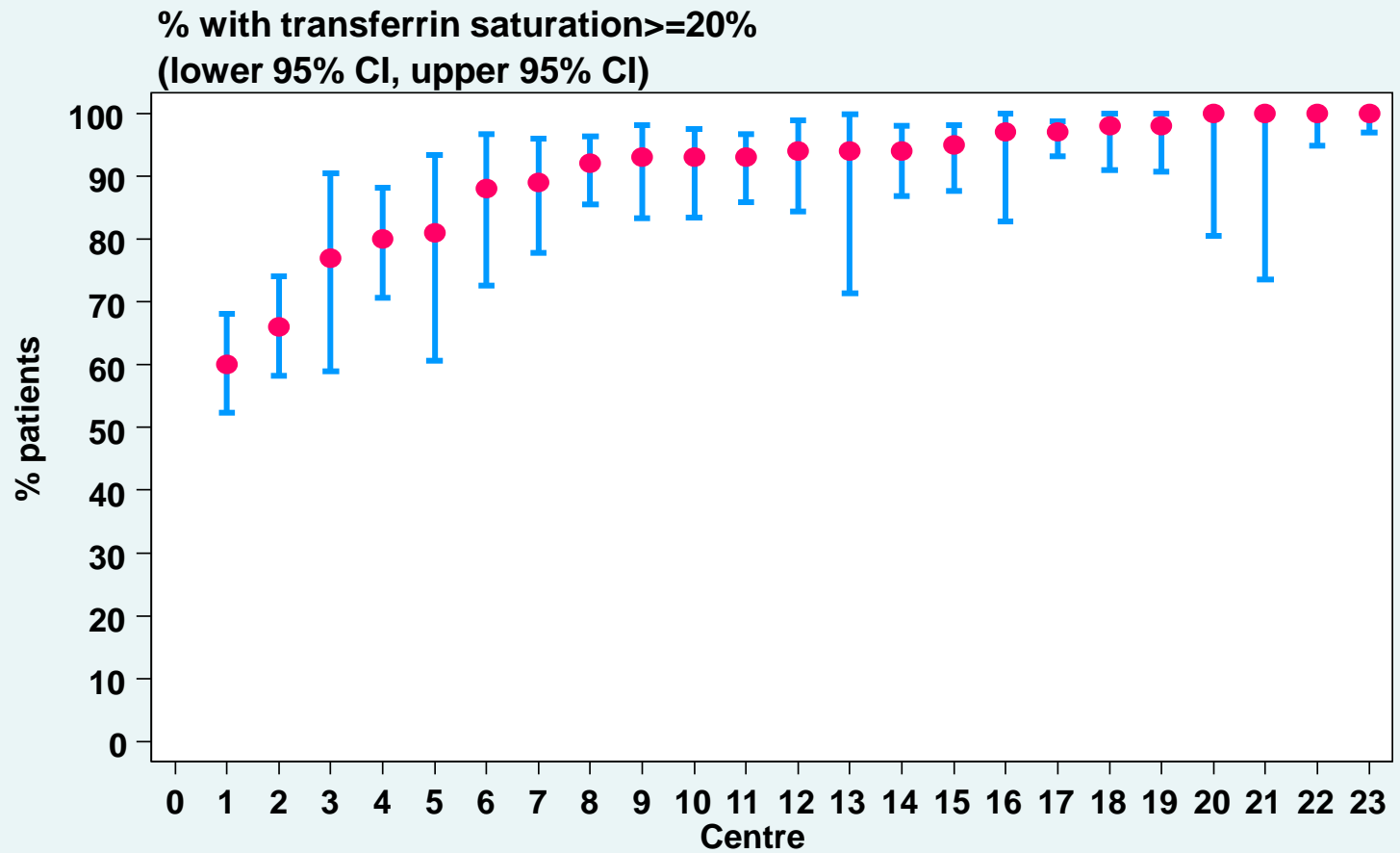
**Figure 6.2.10 (c): Variation in median transferrin saturation among patients on ESAs, PD centres 2011**



**Table 6.2.10 (d): Proportion of patients on ESAs with transferring saturation  $\geq 20\%$ , PD centres**

<b>Year</b>	<b>Number of centres</b>	<b>Min</b>	<b>5<sup>th</sup> centile</b>	<b>LQ</b>	<b>Median</b>	<b>UQ</b>	<b>95<sup>th</sup> centile</b>	<b>Max</b>
<b>2002</b>	<b>9</b>	<b>78</b>	<b>78</b>	<b>92</b>	<b>93</b>	<b>98</b>	<b>100</b>	<b>100</b>
<b>2003</b>	<b>13</b>	<b>90</b>	<b>90</b>	<b>95</b>	<b>96</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>2004</b>	<b>17</b>	<b>88</b>	<b>88</b>	<b>96</b>	<b>97</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>2005</b>	<b>17</b>	<b>88</b>	<b>88</b>	<b>93</b>	<b>97</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>2006</b>	<b>19</b>	<b>83</b>	<b>83</b>	<b>94</b>	<b>95</b>	<b>98</b>	<b>100</b>	<b>100</b>
<b>2007</b>	<b>19</b>	<b>75</b>	<b>75</b>	<b>88</b>	<b>94</b>	<b>98</b>	<b>100</b>	<b>100</b>
<b>2008</b>	<b>19</b>	<b>65</b>	<b>65</b>	<b>91</b>	<b>95</b>	<b>97</b>	<b>100</b>	<b>100</b>
<b>2009</b>	<b>22</b>	<b>71</b>	<b>81</b>	<b>90</b>	<b>94.5</b>	<b>98</b>	<b>100</b>	<b>100</b>
<b>2010</b>	<b>22</b>	<b>70</b>	<b>70</b>	<b>92</b>	<b>95</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>2011</b>	<b>23</b>	<b>60</b>	<b>66</b>	<b>88</b>	<b>94</b>	<b>98</b>	<b>100</b>	<b>100</b>

**Figure 6.2.10 (d): Variation in proportion of patients on ESAs with transferrin saturation  $\geq 20\%$ , PD centres 2011**

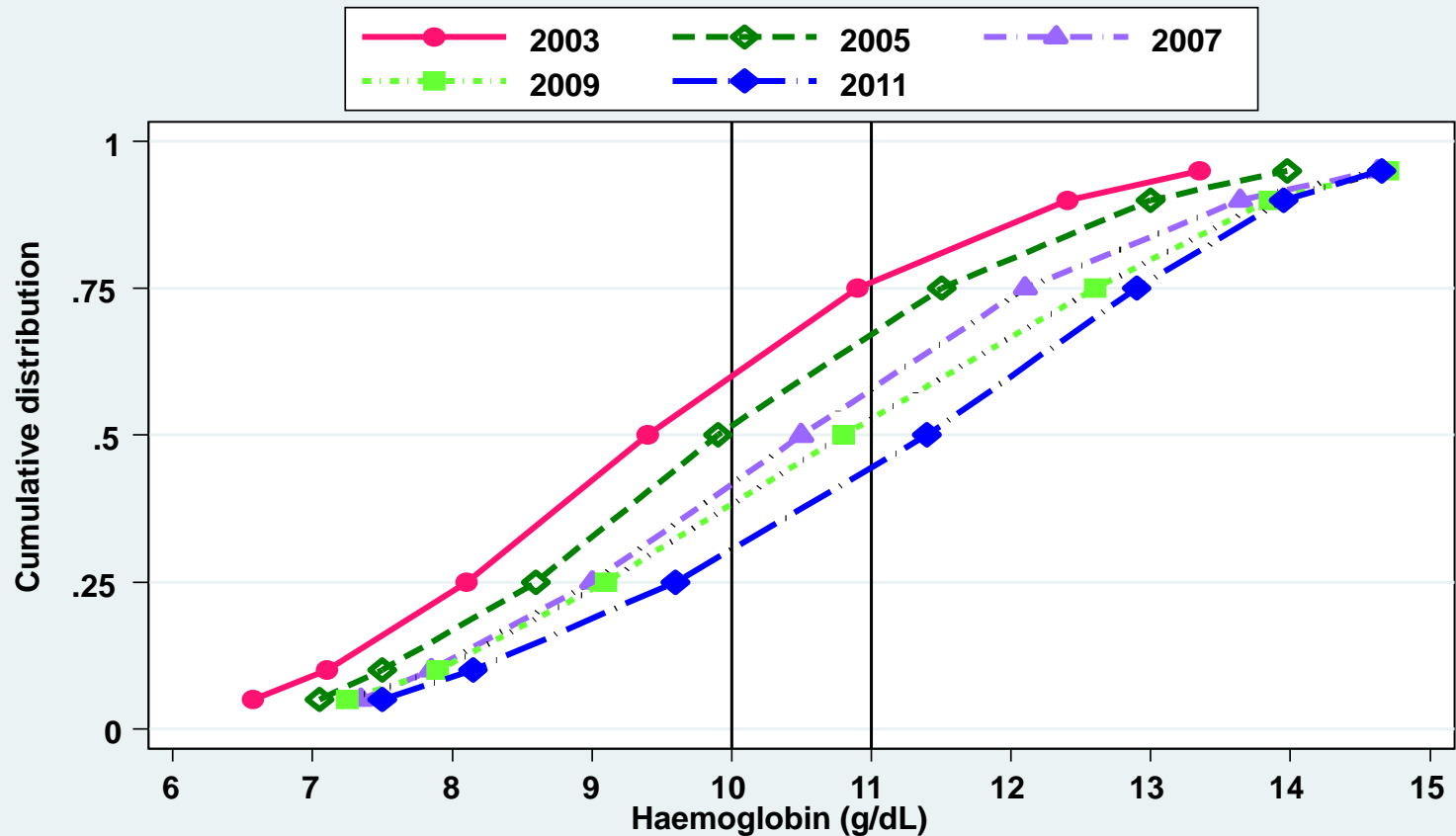


**Table 6.3.1: Distribution of haemoglobin concentration without ESAs, HD patients 2002-2011**

Year	Number of patients	Mean	SD	Median	LQ	UQ	% Patients <10g/dL	% Patients 10-<12g/dL	% Patients >=12g/dL
2002	1795	9.6	2.1	9.4	8.1	10.9	62	25	13
2003	1801	9.7	2.1	9.5	8.3	11	60	25	15
2004	1925	10.1	2.2	9.9	8.6	11.5	53	28	19
2005	1667	10.5	2.3	10.3	8.9	12.1	46	29	25
2006	1760	10.6	2.2	10.5	9	12.1	42	32	26
2007	1756	10.8	2.2	10.7	9.1	12.4	40	29	31
2008	1751	10.8	2.3	10.8	9.1	12.6	39	29	32
2009	1847	11.2	2.3	11.3	9.4	12.9	33	29	38
2010	1875	11.2	2.2	11.4	9.6	12.9	30	30	40
2011	2092	11.2	2.2	11.4	9.7	12.8	30	30	40



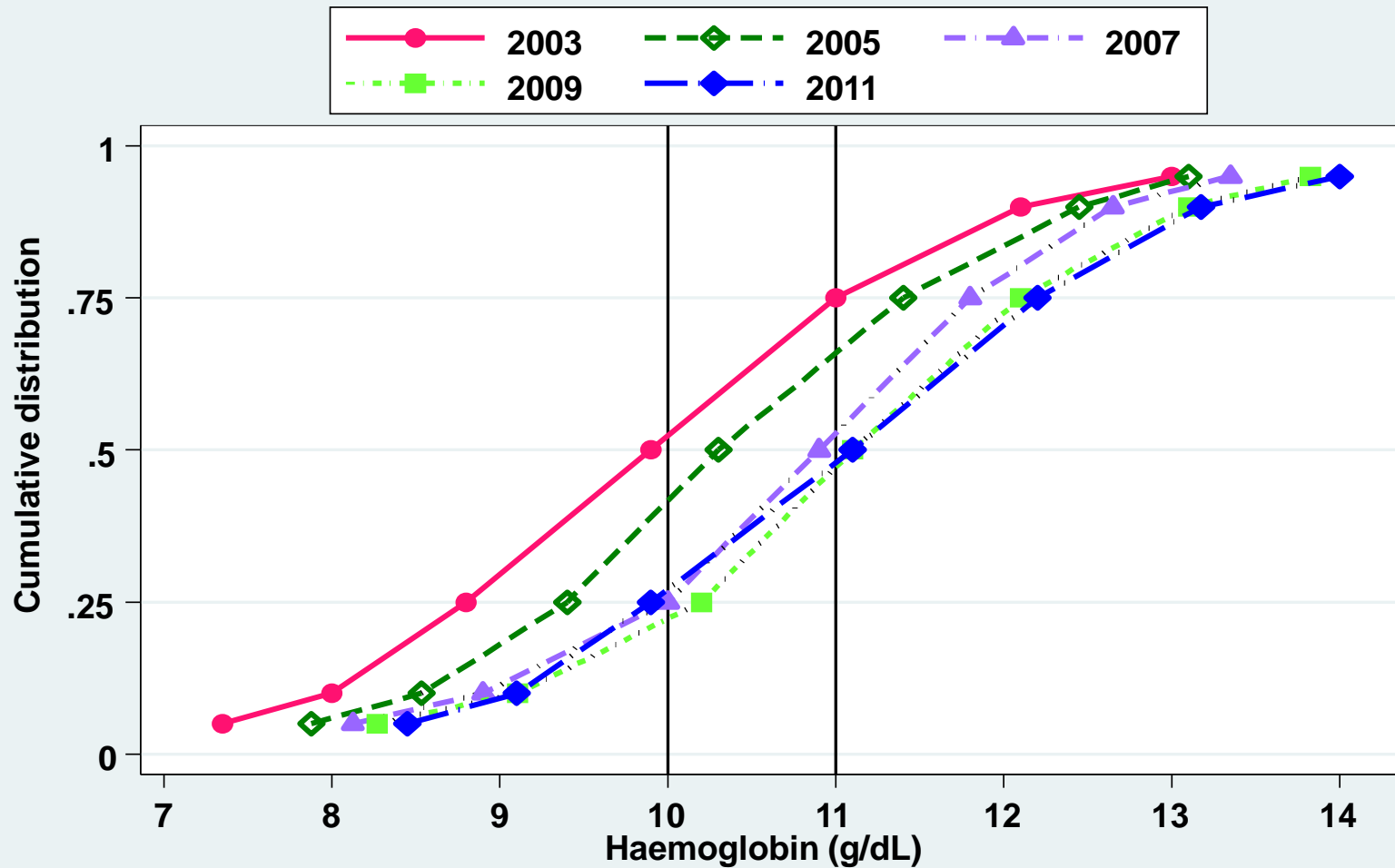
**Figure 6.3.1: Cumulative distribution of haemoglobin concentration without ESAs, HD patients 2002-2011**



**Table 6.3.2: Distribution of haemoglobin concentration without ESAs, PD patients 2002-2011**

Year	Number of patients	Mean	SD	Median	LQ	UQ	% Patients <10g/dL	% Patients 10-<12g/dL	% Patients >=12g/dL
2002	434	10	1.8	9.9	8.8	11	54	35	11
2003	542	10	1.7	9.9	8.9	11	52	38	10
2004	481	10.4	1.6	10.3	9.4	11.4	42	43	15
2005	375	10.8	1.6	10.8	9.9	11.8	28	52	20
2006	387	10.9	1.6	10.9	10	11.8	25	55	20
2007	436	11.1	1.6	11	10.2	12.1	22	51	27
2008	450	11.1	1.7	11.1	10.2	12.1	21	51	28
2009	488	11.1	1.8	11.1	10.1	12.2	25	47	28
2010	495	11.1	1.7	11.1	9.9	12.2	27	46	27
2011	555	11.1	1.6	11.1	10	12.2	25	48	27

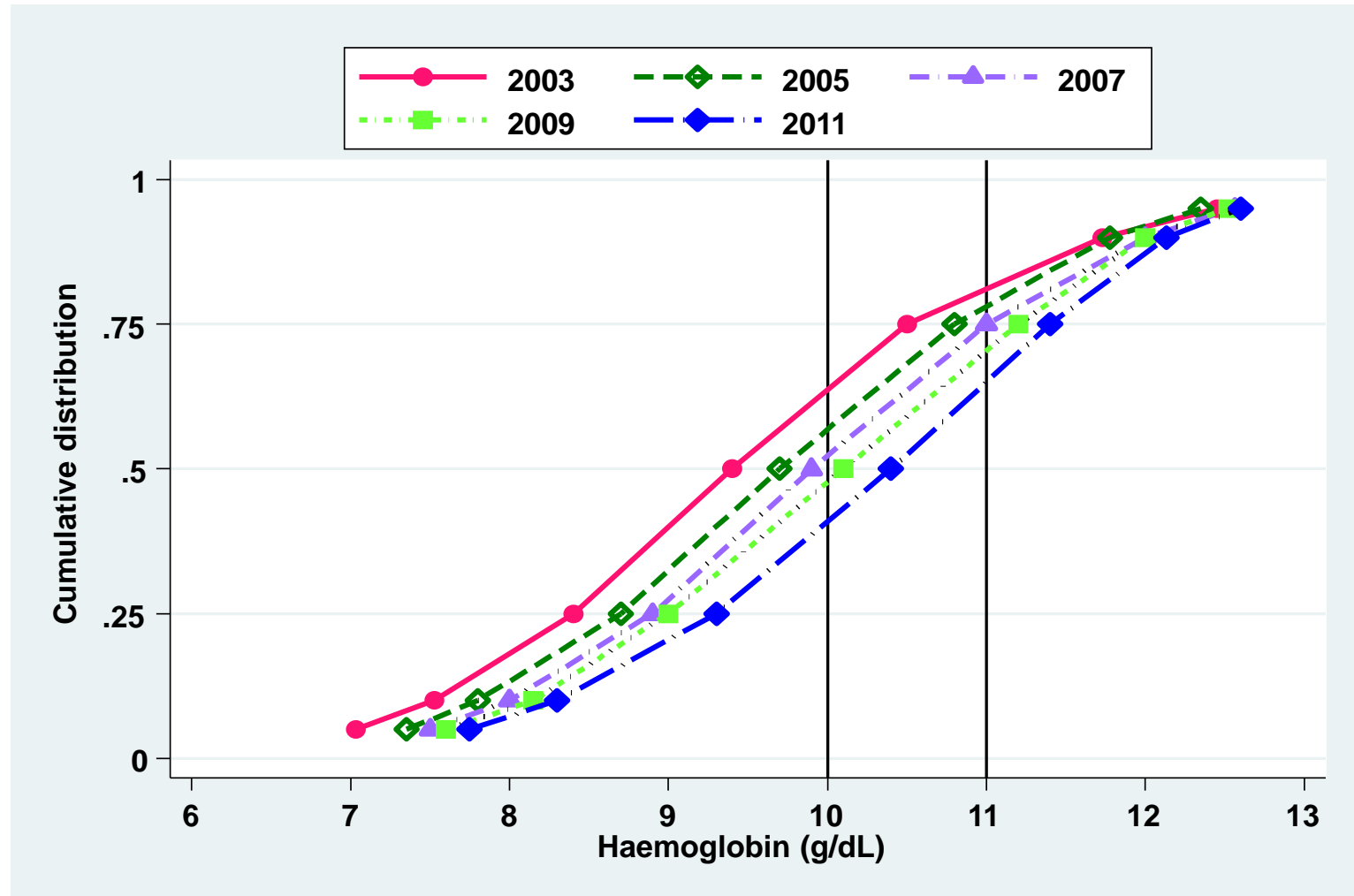
**Figure 6.3.2: Cumulative distribution of haemoglobin concentration without ESAs, PD patients 2002-2011**



**Table 6.3.3(a): Distribution of haemoglobin concentration on ESAs, diabetes HD patients 2002-2011**

<b>Year</b>	<b>Number of patients</b>	<b>Mean</b>	<b>SD</b>	<b>Median</b>	<b>LQ</b>	<b>UQ</b>	<b>% Patients &lt;10g/dL</b>	<b>% Patients 10-&lt;12g/dL</b>	<b>% Patients &gt;=12g/dL</b>
2002	1261	9.5	1.7	9.4	8.4	10.5	65	28	7
2003	1667	9.6	1.5	9.6	8.6	10.6	62	32	6
2004	2189	9.8	1.5	9.7	8.7	10.8	57	35	8
2005	2890	10	1.6	9.9	8.9	11	52	38	10
2006	4084	10	1.6	9.9	8.9	11	53	38	9
2007	4654	10.1	1.5	10.1	9	11.1	48	42	10
2008	5881	10.1	1.5	10.1	9	11.2	47	43	10
2009	7337	10.2	1.5	10.3	9.2	11.3	44	45	11
2010	8123	10.3	1.5	10.4	9.3	11.4	42	46	12
2011	9300	10.3	1.5	10.4	9.3	11.4	41	47	12

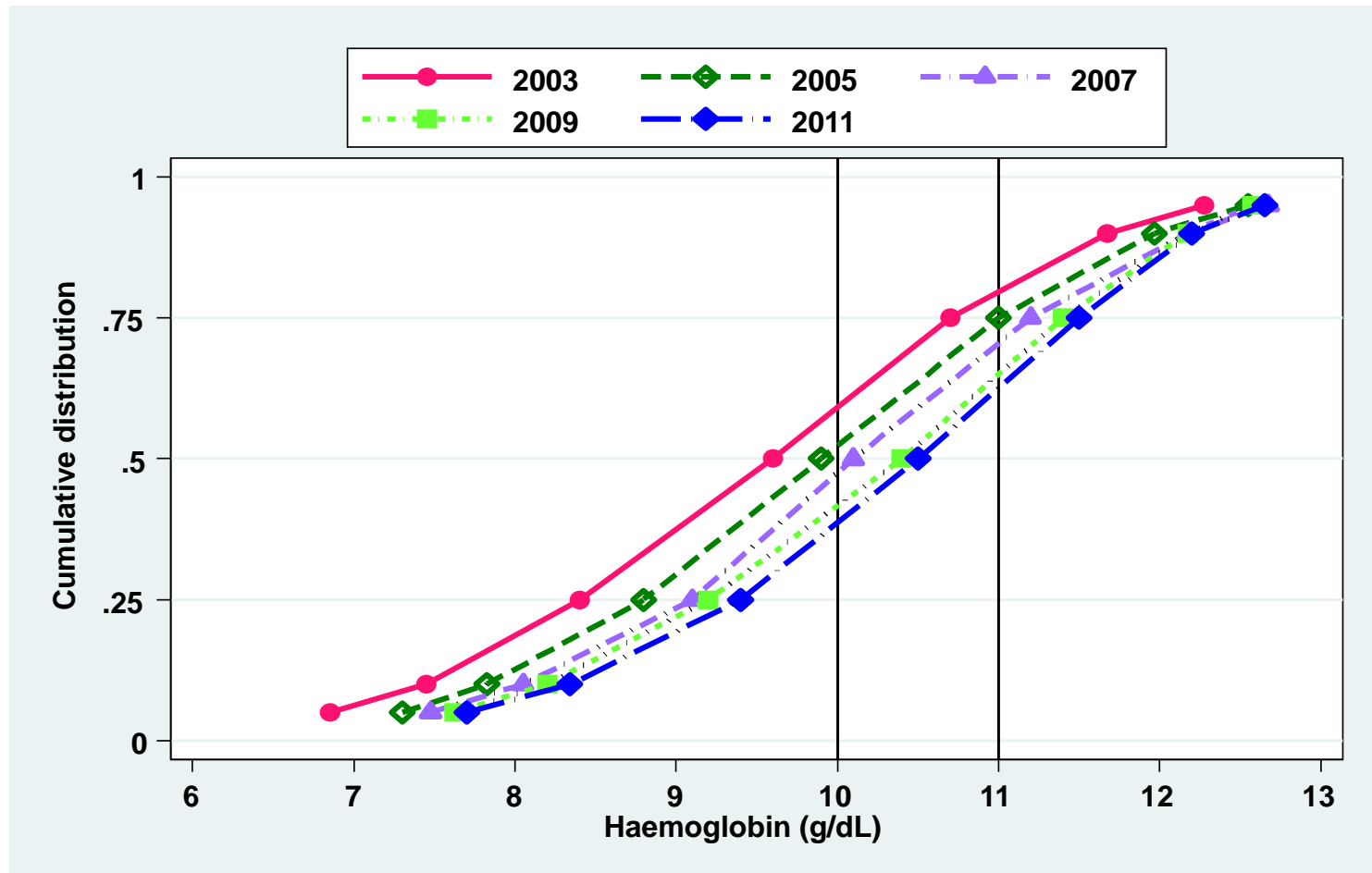
**Figure 6.3.3(a): Cumulative distribution of haemoglobin concentration on ESAs, diabetes HD patients 2002-2011**



**Table 6.3.3(b): Distribution of haemoglobin concentration on ESAs, non-diabetes HD patients 2002-2011**

Year	Number of patients	Mean	SD	Median	LQ	UQ	% Patients <10g/dL	% Patients 10-<12g/dL	% Patients >=12g/dL
2002	2598	9.5	1.7	9.6	8.4	10.7	61	32	7
2003	3116	9.6	1.7	9.6	8.5	10.7	60	32	8
2004	3617	9.9	1.6	9.9	8.8	11	53	38	9
2005	4328	10.1	1.6	10.1	8.9	11.2	48	40	12
2006	5331	10.1	1.6	10.1	9.1	11.2	47	41	12
2007	6042	10.3	1.6	10.4	9.3	11.4	41	46	13
2008	7153	10.3	1.5	10.4	9.2	11.4	41	47	12
2009	8190	10.3	1.5	10.5	9.3	11.4	40	48	12
2010	8970	10.4	1.5	10.5	9.4	11.5	38	49	13
2011	10280	10.3	1.5	10.5	9.4	11.4	39	49	12

**Figure 6.3.3(b): Cumulative distribution of haemoglobin concentration on ESAs, non-diabetes HD patients 2002-2011**

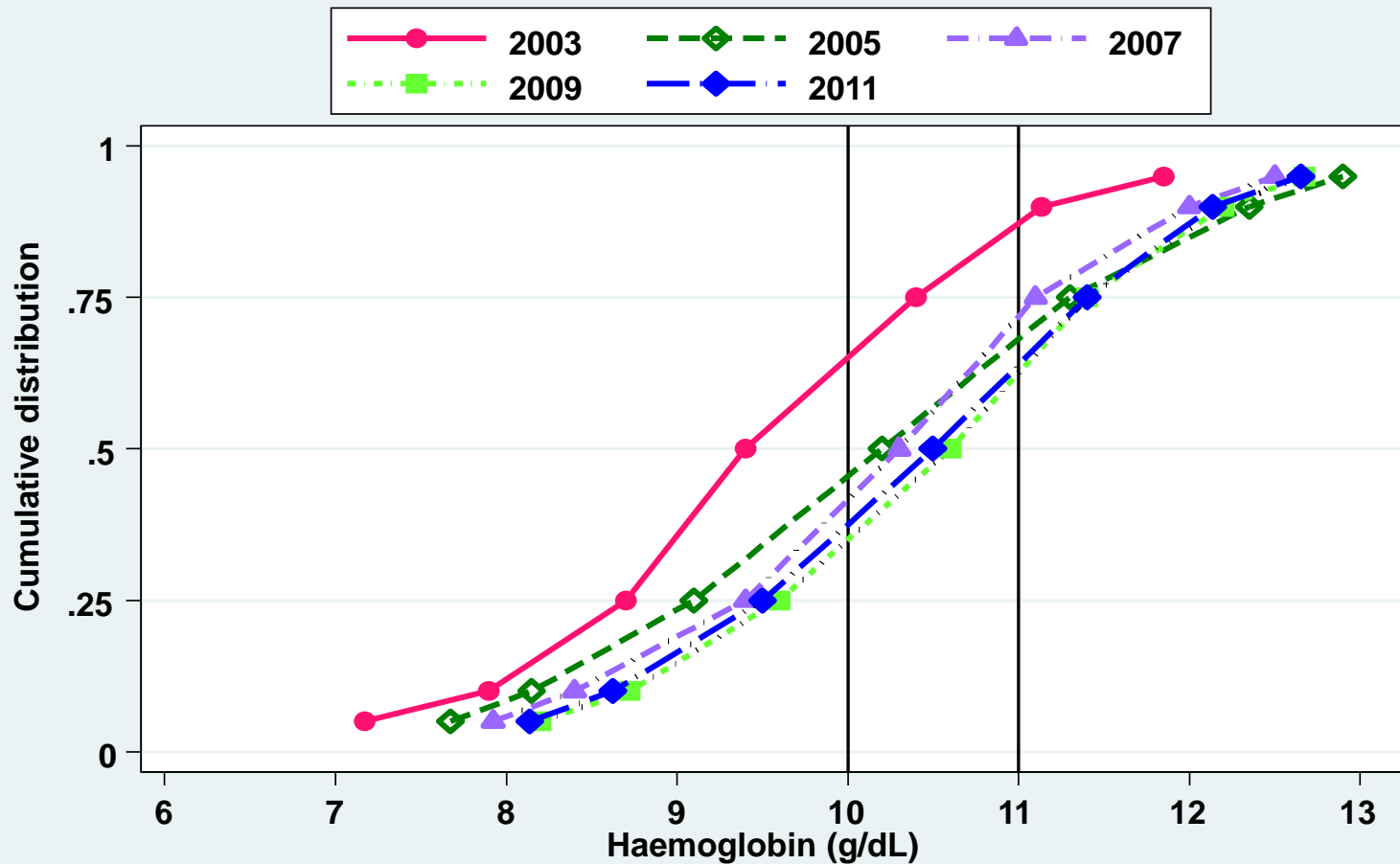


**Table 6.3.4 (a): Distribution of haemoglobin concentration on ESAs, diabetes PD patients 2002-2011**

<b>Year</b>	<b>Number of subject</b>	<b>Mean</b>	<b>SD</b>	<b>Median</b>	<b>LQ</b>	<b>UQ</b>	<b>% Patients &lt;10g/dL</b>	<b>% Patients 10-&lt;12g/dL</b>	<b>% Patients &gt;=12g/dL</b>
2002	89	9.5	1.3	9.4	8.7	10.4	65	33	2
2003	153	10.1	1.7	10.1	9.1	11.2	48	41	11
2004	224	10.2	1.6	10.2	9.1	11.3	46	40	14
2005	267	10.3	1.6	10.3	9.3	11.5	43	43	14
2006	334	10.2	1.4	10.3	9.4	11.1	43	47	10
2007	459	10.5	1.3	10.4	9.6	11.4	37	51	12
2008	629	10.5	1.3	10.6	9.6	11.4	33	55	12
2009	652	10.5	1.4	10.6	9.6	11.4	35	53	12
2010	620	10.5	1.4	10.5	9.5	11.4	37	50	13
2011	591	10.4	1.4	10.5	9.5	11.4	36	53	11



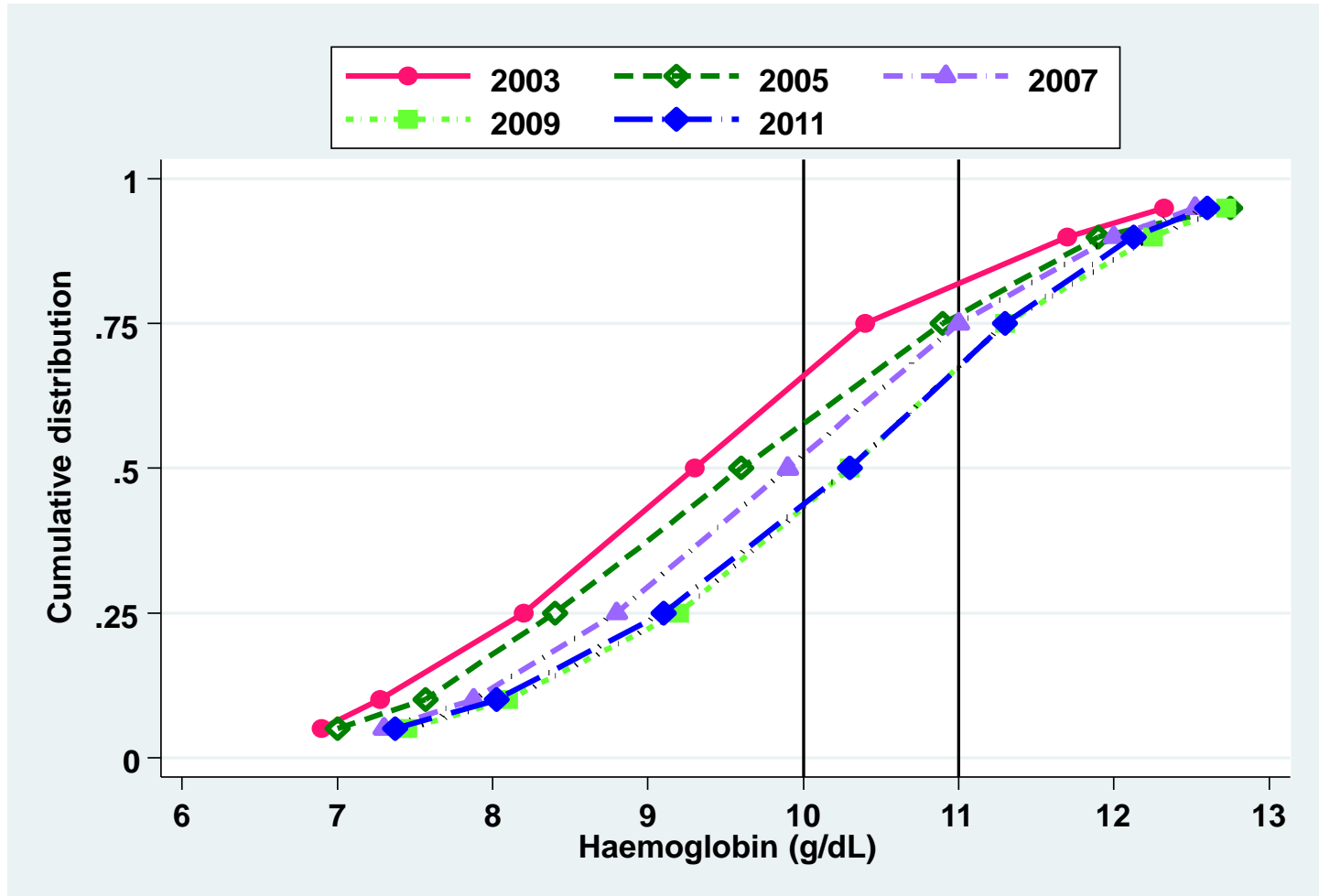
**Figure 6.3.4(a): Cumulative distribution of haemoglobin concentration on ESAs, diabetes PD patients 2002-2011**



**Table 6.3.4 (b): Distribution of haemoglobin concentration on ESAs, non-diabetes PD patients 2002-2011**

Year	Number of subject	Mean	SD	Median	LQ	UQ	% Patients <10g/dL	% Patients 10-<12g/dL	% Patients >=12g/dL
2002	343	9.4	1.7	9.3	8.2	10.4	70	24	6
2003	486	9.6	1.6	9.6	8.4	10.6	63	28	9
2004	574	9.7	1.7	9.6	8.4	10.9	57	34	9
2005	703	9.8	1.7	9.7	8.6	11	56	33	11
2006	784	9.9	1.6	9.9	8.8	11	52	38	10
2007	860	10.2	1.7	10.3	9	11.4	44	41	15
2008	948	10.2	1.6	10.3	9.2	11.3	44	44	12
2009	1012	10.2	1.6	10.3	9.2	11.4	44	44	12
2010	1185	10.2	1.6	10.3	9.1	11.3	44	45	11
2011	1351	10.1	1.5	10.2	9.1	11.2	46	45	9

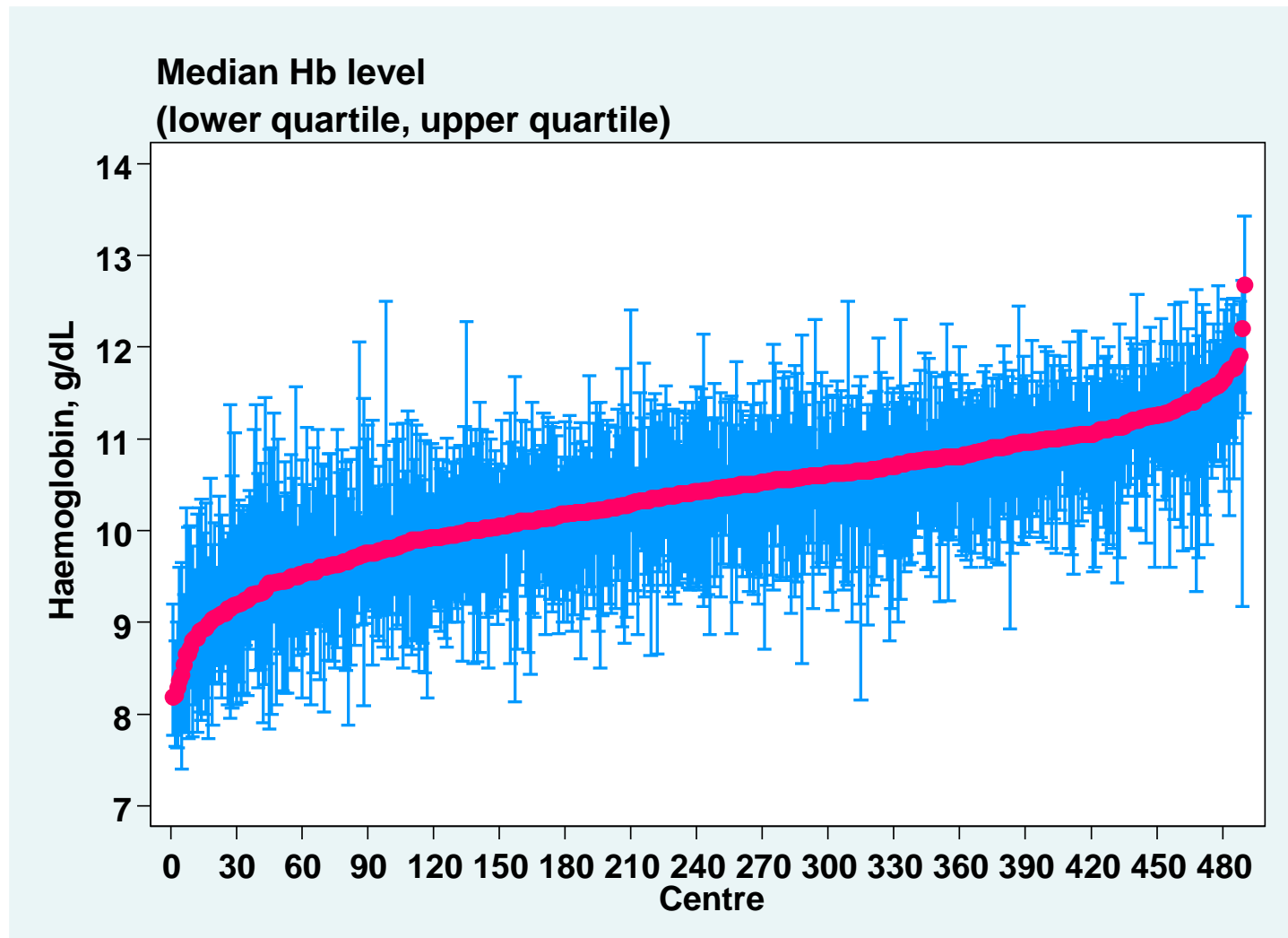
**Figure 6.3.4(b): Cumulative distribution of haemoglobin concentration on ESAs, non-diabetes PD patients 2002-2011**



**Table 6.3.5 (a): Variation in median haemoglobin level among patients on ESAs, HD centres 2002-2011**

<b>Year</b>	<b>Number of centres</b>	<b>Min</b>	<b>5<sup>th</sup> centile</b>	<b>LQ</b>	<b>Median</b>	<b>UQ</b>	<b>95<sup>th</sup> centile</b>	<b>Max</b>
<b>2002</b>	<b>112</b>	<b>7.9</b>	<b>8.4</b>	<b>9</b>	<b>9.5</b>	<b>9.9</b>	<b>10.8</b>	<b>11.6</b>
<b>2003</b>	<b>143</b>	<b>7.9</b>	<b>8.5</b>	<b>9.1</b>	<b>9.6</b>	<b>10</b>	<b>10.7</b>	<b>11.5</b>
<b>2004</b>	<b>179</b>	<b>7.7</b>	<b>8.6</b>	<b>9.3</b>	<b>9.8</b>	<b>10.2</b>	<b>10.9</b>	<b>11.3</b>
<b>2005</b>	<b>215</b>	<b>8.3</b>	<b>8.8</b>	<b>9.5</b>	<b>9.9</b>	<b>10.4</b>	<b>11.1</b>	<b>11.8</b>
<b>2006</b>	<b>269</b>	<b>7.7</b>	<b>8.8</b>	<b>9.5</b>	<b>9.9</b>	<b>10.4</b>	<b>11.3</b>	<b>12.6</b>
<b>2007</b>	<b>305</b>	<b>8.6</b>	<b>9.1</b>	<b>9.8</b>	<b>10.2</b>	<b>10.6</b>	<b>11.2</b>	<b>11.9</b>
<b>2008</b>	<b>360</b>	<b>8.1</b>	<b>9</b>	<b>9.8</b>	<b>10.2</b>	<b>10.7</b>	<b>11.4</b>	<b>12.1</b>
<b>2009</b>	<b>395</b>	<b>8.5</b>	<b>9.1</b>	<b>9.9</b>	<b>10.3</b>	<b>10.8</b>	<b>11.4</b>	<b>12.2</b>
<b>2010</b>	<b>431</b>	<b>8.1</b>	<b>9.3</b>	<b>9.9</b>	<b>10.4</b>	<b>10.9</b>	<b>11.5</b>	<b>12.1</b>
<b>2011</b>	<b>490</b>	<b>8.2</b>	<b>9.1</b>	<b>9.9</b>	<b>10.4</b>	<b>10.9</b>	<b>11.4</b>	<b>12.7</b>

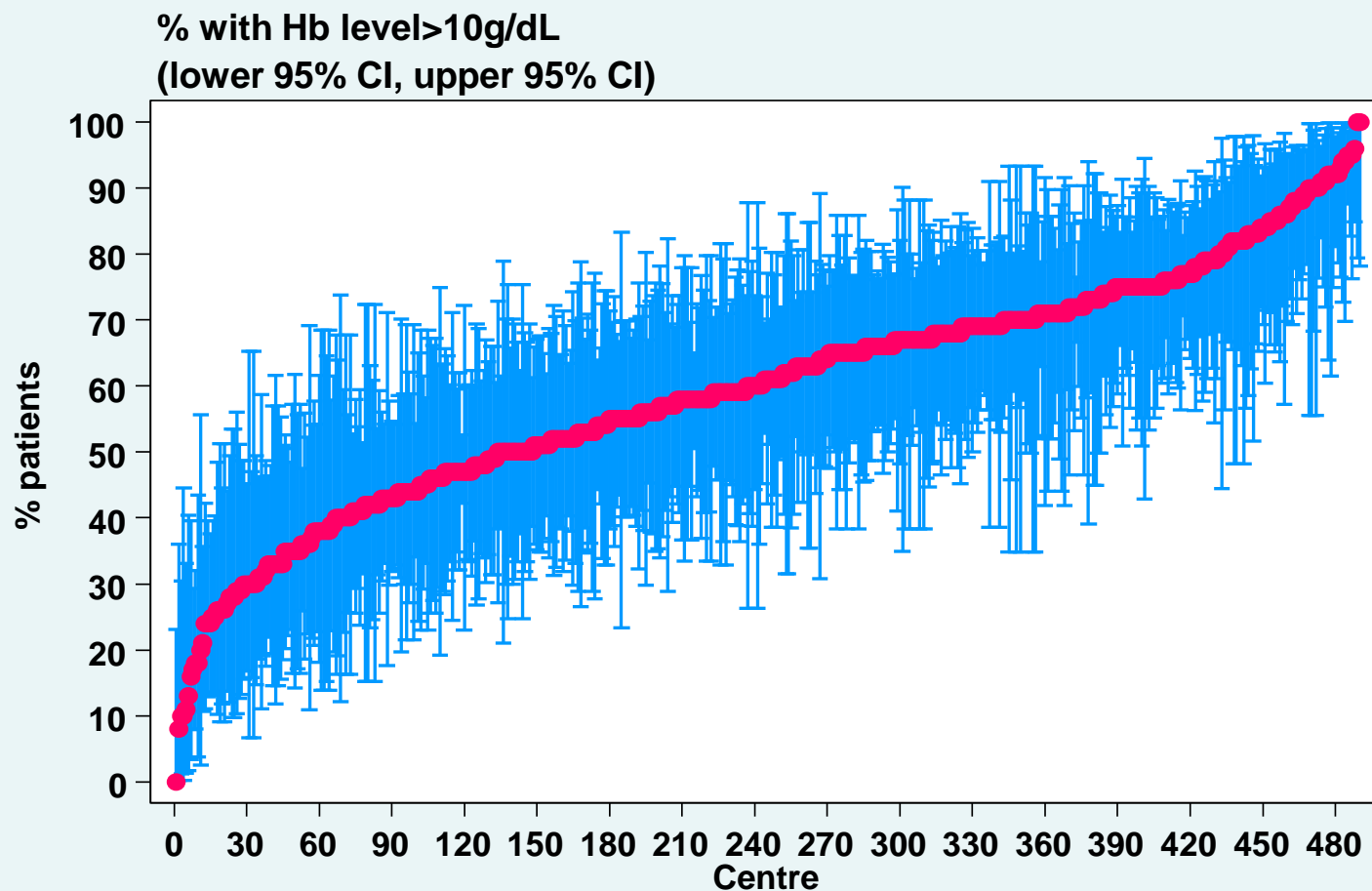
**Figure 6.3.5(a): Variation in median haemoglobin level among patients on ESAs, HD centres 2011**



**Table 6.3.5 (b): Proportion of patients on ESAs with haemoglobin level > 10g/dL, HD centres**

<b>Year</b>	<b>Number of centres</b>	<b>Min</b>	<b>5<sup>th</sup> centile</b>	<b>LQ</b>	<b>Median</b>	<b>UQ</b>	<b>95<sup>th</sup> centile</b>	<b>Max</b>
2002	112	0	13	27	36	47	64	87
2003	143	7	14	27	36	50	69	90
2004	179	7	17	30	42	57	73	85
2005	215	0	18	33	49	61	79	100
2006	269	0	20	35	47	62	81	94
2007	305	13	28	43	56	67	84	100
2008	360	0	26.5	44	56	69	82	100
2009	395	7	27	45	58	70	86	100
2010	431	13	27	46	60	73	88	100
2011	490	0	28	47	61	71	88	100

**Figure 6.3.5(b): Variation in proportion of patients on ESAs with haemoglobin level > 10g/dL, HD centres 2011**

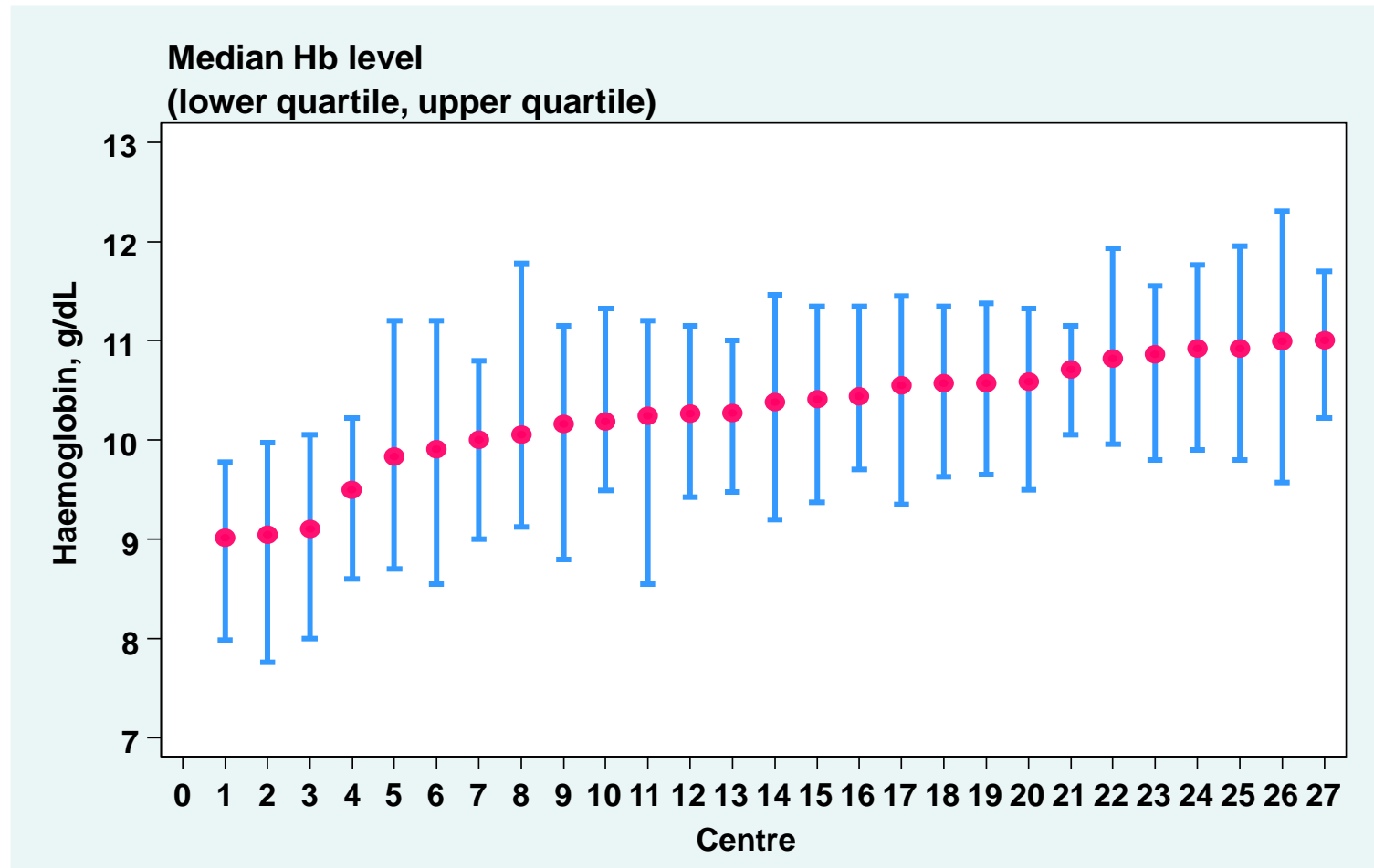


**Table 6.3.6 (a): Variation in Median haemoglobin level among patients on ESAs, PD centres 2002-2011**

<b>Year</b>	<b>Number of centres</b>	<b>Min</b>	<b>5<sup>th</sup> centile</b>	<b>LQ</b>	<b>Median</b>	<b>UQ</b>	<b>95<sup>th</sup> centile</b>	<b>Max</b>
<b>2002</b>	<b>12</b>	<b>8.6</b>	<b>8.6</b>	<b>9.1</b>	<b>9.3</b>	<b>9.5</b>	<b>9.9</b>	<b>9.9</b>
<b>2003</b>	<b>16</b>	<b>8.4</b>	<b>8.4</b>	<b>9.3</b>	<b>9.5</b>	<b>10</b>	<b>11.2</b>	<b>11.2</b>
<b>2004</b>	<b>17</b>	<b>8.4</b>	<b>8.4</b>	<b>9.2</b>	<b>9.7</b>	<b>10.2</b>	<b>11.2</b>	<b>11.2</b>
<b>2005</b>	<b>18</b>	<b>8.9</b>	<b>8.9</b>	<b>9.6</b>	<b>9.9</b>	<b>10.3</b>	<b>11</b>	<b>11</b>
<b>2006</b>	<b>22</b>	<b>8.8</b>	<b>8.8</b>	<b>9.5</b>	<b>9.9</b>	<b>10.4</b>	<b>10.6</b>	<b>10.9</b>
<b>2007</b>	<b>22</b>	<b>9.5</b>	<b>9.5</b>	<b>10.1</b>	<b>10.3</b>	<b>10.8</b>	<b>11.1</b>	<b>11.2</b>
<b>2008</b>	<b>22</b>	<b>9.2</b>	<b>9.6</b>	<b>10.2</b>	<b>10.4</b>	<b>10.8</b>	<b>11.1</b>	<b>11.2</b>
<b>2009</b>	<b>23</b>	<b>9.4</b>	<b>9.5</b>	<b>9.9</b>	<b>10.6</b>	<b>10.7</b>	<b>11.1</b>	<b>11.2</b>
<b>2010</b>	<b>25</b>	<b>9.3</b>	<b>9.5</b>	<b>10.1</b>	<b>10.5</b>	<b>10.9</b>	<b>11.2</b>	<b>11.3</b>
<b>2011</b>	<b>27</b>	<b>9</b>	<b>9</b>	<b>10</b>	<b>10.4</b>	<b>10.7</b>	<b>11</b>	<b>11</b>



**Figure 6.3.6(a): Variation in median haemoglobin level among patients on ESAs, PD centres 2011**



**Table 6.3.6 (b): Proportion of patients on ESAs with haemoglobin level > 10g/dL, PD centres**

<b>Year</b>	<b>Number of centres</b>	<b>Min</b>	<b>5<sup>th</sup> centile</b>	<b>LQ</b>	<b>Median</b>	<b>UQ</b>	<b>95<sup>th</sup> centile</b>	<b>Max</b>
<b>2002</b>	<b>12</b>	<b>11</b>	<b>11</b>	<b>25</b>	<b>32</b>	<b>37.5</b>	<b>48</b>	<b>48</b>
<b>2003</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>28.5</b>	<b>35.5</b>	<b>50</b>	<b>75</b>	<b>75</b>
<b>2004</b>	<b>17</b>	<b>10</b>	<b>10</b>	<b>38</b>	<b>42</b>	<b>55</b>	<b>72</b>	<b>72</b>
<b>2005</b>	<b>18</b>	<b>21</b>	<b>21</b>	<b>35</b>	<b>46</b>	<b>56</b>	<b>76</b>	<b>76</b>
<b>2006</b>	<b>22</b>	<b>16</b>	<b>19</b>	<b>43</b>	<b>48</b>	<b>58</b>	<b>70</b>	<b>76</b>
<b>2007</b>	<b>22</b>	<b>36</b>	<b>36</b>	<b>52</b>	<b>59.5</b>	<b>63</b>	<b>72</b>	<b>73</b>
<b>2008</b>	<b>22</b>	<b>31</b>	<b>35</b>	<b>55</b>	<b>60.5</b>	<b>65</b>	<b>75</b>	<b>89</b>
<b>2009</b>	<b>23</b>	<b>33</b>	<b>37</b>	<b>46</b>	<b>60</b>	<b>67</b>	<b>74</b>	<b>75</b>
<b>2010</b>	<b>25</b>	<b>36</b>	<b>36</b>	<b>52</b>	<b>59</b>	<b>65</b>	<b>75</b>	<b>75</b>
<b>2011</b>	<b>27</b>	<b>17</b>	<b>23</b>	<b>50</b>	<b>59</b>	<b>70</b>	<b>77</b>	<b>80</b>

**Figure 6.3.6(b): Variation in proportion of patients on ESAs with haemoglobin level > 10g/dL, PD centres, 2011**

