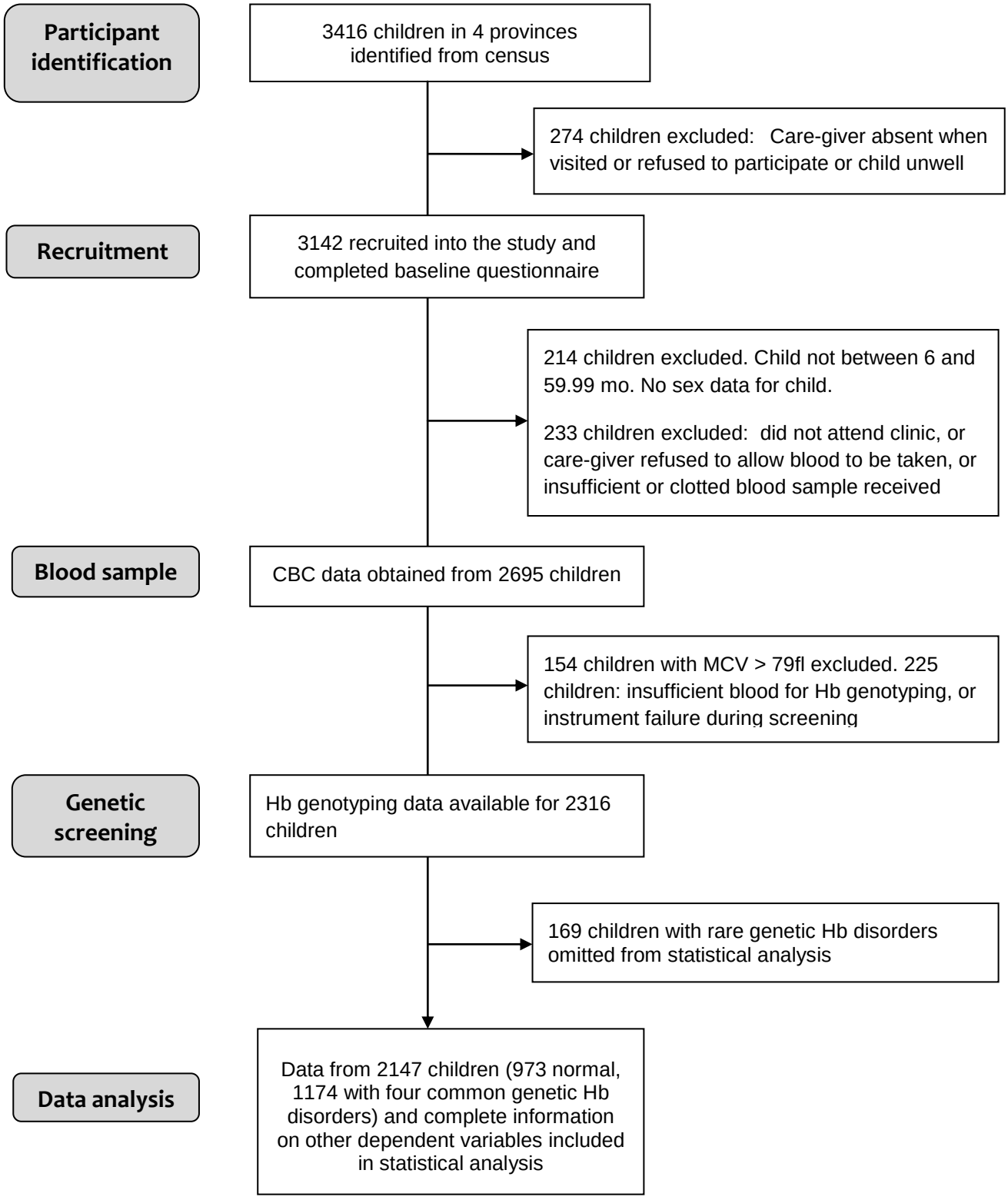
Supplemental FIGURE 1 – Chart showing recruitment, genetic screening, and analyses of data for participants



Supplemental TABLE 1 Values for hematology, biomarkers of iron status, and retinol binding protein for children with normal Hb type (Hb AA) from three age-groups by rural and urban setting, and by sex[1]

		Rural		Urban	
	Mo	Boys	Girls	Boys	Girls
Hb	6-11.99	46 96 ± 13	49 102 ± 12	24 106 ± 13	17 104 ± 9
g/L	12-23.99	99 103 ± 12	90 104 ± 10	54 112 ± 11	63 112 ± 10
	24-59.99	193 112 ± 8	154 113 ± 9	95 117 ± 8	89 116 ± 8
		* Age 6-11.99 mo :*P*<0.001; Age12-23.99 mo *P*<0.001; Setting :*P*<0.001; Sex *P*=0.027			
MCV	6-11.99	46 67.3 ± 5.8	49 70.0 ± 5.5	24 68.0 ± 5.9	17 70.6 ± 4.9
fL	12-23.99	99 68.7 ± 5.9	90 70.6 ± 5.3	54 71.1 ± 4.5	63 72.4 ± 3.6
	24-59.99	193 74.1 ± 3.8	154 74.7 ± 4.1	95 75.0 ± 3.3	89 75.8 ± 2.7
		* Age 6-11.99 mo :*P*<0.001; Age12-23.99 mo *P*=0.009; Setting :*P*<0.001; Sex *P*<0.001			
RBC	6-11.99	46 4.61 ± 0.43	49 4.61 ± 0.43	24 4.63 ± 0.42	17 4.42 ± 0.29
10^{12}/L	12-23.99	99 4.83 ± 0.38	90 4.70 ± 0.40	54 4.66 ± 0.39	63 4.55 ± 0.38
	24-59.99	193 4.60 ± 0.37	154 4.58 ± 0.36	95 4.48 ± 0.34	89 4.54 ± 0.33
		* Age 6-11.99 mo :*P*=0.003; Age12-23.99 mo *P*=0.06; Setting :*P*<0.001; Sex *P*=0.05			
RDW	6-11.99	46 14.9 ± 2.6	49 13.9 ± 2.3	21 15.9 ± 1.8	15 15.1 ± 1.2
%	12-23.99	99 15.0 ± 2.4	90 14.4 ± 2.2	48 15.3 ± 2.0	53 14.6 ± 1.5
	24-59.99	193 13.3 ± 1.2	154 13.2 ± 1.2	90 13.7 ± 1.2	77 13.3 ± 0.9
		* Age 6-11.99 mo :*P*=0.79; Age12-23.99 mo *P*<0.001; Setting :*P*=0.004; Sex *P*<0.001			
Ferritin	6-11.99	36 14.1 (4.6, 43.2)[2]	40 18.3 (7/0, 42.7)	23 17.5 (6.6, 46.4)	14 20.1 (7.4, 54.6)
µg/L	12-23.99	78 11.8 (5.2, 26.9)	70 13.6 (6.0, 30.8)	48 16.1 (6.7, 38.4)	56 21.0 (9.4, 46.9)
	24-59.99	167 26.6 (13.1, 54.0)	136 27.8 (13.0, 59.7)	89 36.6 (18.5, 72.1)	80 48.7 (2410, 111.6)
		* Age 6-11.99 mo :*P*=0.118; Age12-23.99 mo *P*<0.001; Setting :*P*<0.001; Sex *P*=0.001			
sTfr	6-11.99	46 11.0 (7.7, 15.6)	49 9.0 (6.9, 11.8)	24 9.6 (6.8, 13.5)	17 8.2 (7.0, 9.7)
mg/L	12-23.99	99 10.2 (7.2, 14.4)	90 9.6 (7.0, 13.3)	54 8.1 (6.6, 9.8)	63 7.6 (6.2, 9.5)
	24-59.99	193 7.6 (6.1, 9.5)	154 7.2 (5.4, 9.6)	95 6.7 (5.2, 8.6)	89 6.3 (5.2, 7.5)
		* Age 6-11.99 mo :*P*=0.119; Age12-23.99 mo *P*<0.001; Setting :*P*<0.001; Sex *P*<0.001			
RBP	6-11.99	36 1.12 (0.87, 1.45)[2]	40 1.06 (0.80, 1.41)	23 1.28 (0.94, 1.76)	14 1.20 (0.89, 1.60)
(µmol/L)	12-23.99	78 1.08 (0.82, 1.42)	70 1.12 (0.88, 1.42)	48 1.27 (0.96, 1.67)	56 1.30 (1.01, 1.67)
	24-59.99	167 1.13 (0.86, 1.47)	136 1.08 (0.84, 1.40)	89 1.27 (1.01, 1.64)	80 1.25 (0.97, 1.67)
		* Age 6-11.99 mo :*P*=0.65; Age12-23.99 mo *P*=0.47; Setting :*P*<0.001; Sex *P*=0.36			

[1]Values are arithmetic mean ± SD or geometric mean (-SD, + SD)

* Significance of differences from regression with age 24-59.99 mo used as the reference age group

[2] Corrected for subclinical inflammation

Hb, hemoglobin; MCV, mean cell volume; RDW. red cell distribution width; MCH, mean cell hemoglobin; RBC, red blood cell count; sTfr, soluble transferrin receptor; RBP, retinol binding protein