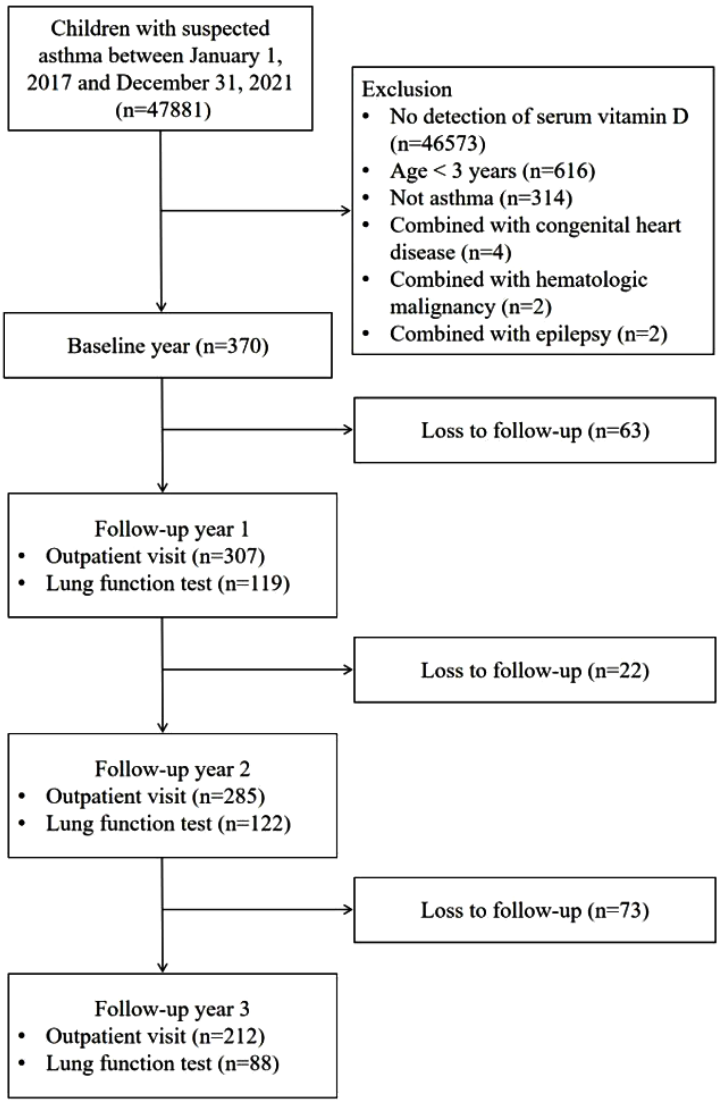

Figure S1 Patient flowchart.

https://dx.doi.org/10.21037/atm-22-2750

Table S1 Prevalence of asthma exacerbations, emergency department visits or hospitalizations, large airway dysfunction, small airway dysfunction during 3-year follow-up

Outcome	N (%)
Asthma exacerbations	
During the first-year follow-up (n=307)	103 (33.6)
During the second-year follow-up (n=285)	31 (10.9)
During the third-year follow-up (n=212)	24 (11.3)
Emergency room visits or hospitalizations	
During the first-year follow-up (n=307)	96 (31.3)
During the second-year follow-up (n=285)	28 (9.8)
During the third-year follow-up (n=212)	18 (8.5)
Large airway dysfunction	
During the first-year follow-up (n=119)	21 (17.6)
During the second-year follow-up (n=122)	8 (6.6)
During the third-year follow-up (n=88)	8 (9.1)
Small airway dysfunction	
During the first-year follow-up (n=119)	41 (34.5)
During the second-year follow-up (n=122)	33 (27.0)
During the third-year follow-up (n=88)	26 (29.5)

Table S2 Estimated associations between vitamin D levels and the number of asthma exacerbations, the number of emergency department visits or hospitalizations, the prevalence of large airway dysfunction, and the prevalence of small airway dysfunction children during the 3-year follow-up

Outcome	Odds ratio (95% CI) (P value)		
	Unadjusted	Multivariate model[†] (original data set)	Multivariate model[†] (data set without missing data)
Number of asthma exacerbations			
During the first-year follow-up (n=307)	0.864 (0.836–0.893) (<0.001)	0.842 (0.805–0.881) (<0.001)	0.844 (0.811–0.880) (<0.001)
During the second-year follow-up (n=285)	0.859 (0.820–0.900) (<0.001)	0.848 (0.793–0.907) (<0.001)	0.845 (0.791–0.899) (<0.001)
During the third-year follow-up (n=212)	0.860 (0.818–0.904) (<0.001)	0.865 (0.811–0.922) (<0.001)	0.858 (0.806–0.913) (<0.001)
Number of emergency department visits or hospitalizations			
During the first-year follow-up (n=307)	0.888 (0.859–0.919) (<0.001)	0.880 (0.842–0.920) (<0.001)	0.881 (0.847–0.918) (<0.001)
During the second-year follow-up (n=285)	0.884 (0.845–0.925) (<0.001)	0.885 (0.832–0.941) (<0.001)	0.886 (0.836–0.939) (<0.001)
During the third-year follow-up (n=212)	0.882 (0.826–0.941) (<0.001)	0.922 (0.851–0.998) (0.044)	0.906 (0.838–0.980) (0.013)
Large airway dysfunction			
During the first-year follow-up (n=119)	0.903 (0.832–0.980) (0.014)	0.865 (0.771–0.970) (0.013)	0.865 (0.773–0.967) (0.011)
During the second-year follow-up (n=122)	0.990 (0.904–1.084) (0.990)	0.979 (0.885–1.084) (0.685)	0.979 (0.885–1.084) (0.686)
During the third-year follow-up (n=88)	1.009 (0.911–1.119) (0.858)	1.106 (0.959–1.275) (0.166)	1.107 (0.961–1.275) (0.161)
Small airway dysfunction			
During the first-year follow-up (n=119)	0.902 (0.846–0.963) (0.002)	0.922 (0.855–0.996) (0.038)	0.912 (0.845–0.984) (0.018)
During the second-year follow-up (n=122)	0.987 (0.939–1.038) (0.615)	0.979 (0.885–1.084) (0.685)	0.975 (0.918–1.037) (0.421)
During the third-year follow-up (n=88)	1.045 (0.978–1.116) (0.196)	1.084 (0.991–1.187) (0.078)	1.090 (0.997–1.192) (0.060)

[†], multivariable models were adjusted for age, sex, BMI z-score, severity of asthma exacerbation, combination with pneumonia, and combination with allergic rhinitis for all outcomes; large airway dysfunction: FEV1 % less than 80%; small airway dysfunction: forced expiratory flow between 25% and 75% of vital capacity (FEF25-75) % less than 65%. BMI, body mass index; CI, confidence interval; FEV1, forced expiratory volume in one second.

https://dx.doi.org/10.21037/atm-22-2750