

# Comparison of Nutritional Status and FEV<sub>1</sub> Data: Progress from 1989 to 2000

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for the NNECFC supported by the Cystic Fibrosis Foundation

## The Northern New England Cystic Fibrosis Consortium



The NNECFC is a regional, voluntary consortium of more than 80 clinicians and researchers from the CF care centers in Maine, New Hampshire and Vermont.

The mission of the group is to improve CF care and patient outcomes.

## Goal

- Assess changes in the nutritional status of CF patients in the US between 1989 and 2000

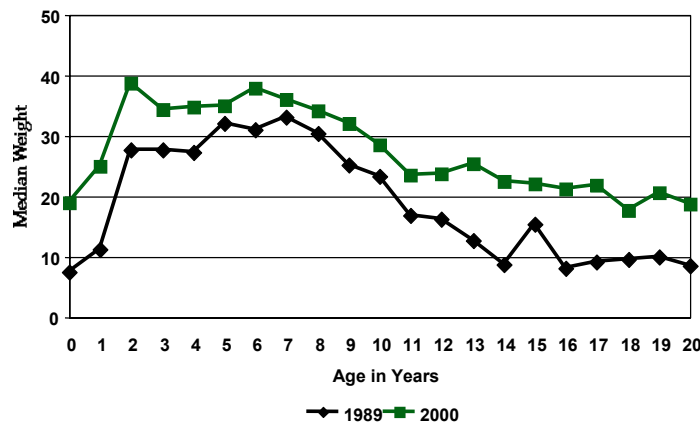
## Methods

- Compared patients age 0-20 years from US CFF Registry for 1989 (n=11,705) through 2000 (n=14,951) Analyses compared:

- Median NCHS height & weight percentiles
- Proportion of patients at  $\leq 10$ th NCHS height and weight percentiles
- Median FEV<sub>1</sub> percent predicted for patients 6-20 years

Patient characteristics	1989	2000
Age at diagnosis	5.3 mos	4.6 mos
Male (%)	52.8	52.1
Presentation (%)		
meconium ileus	19.7	22.8
failure to thrive	47.9	44.8
steatorrhea	36.9	33.7

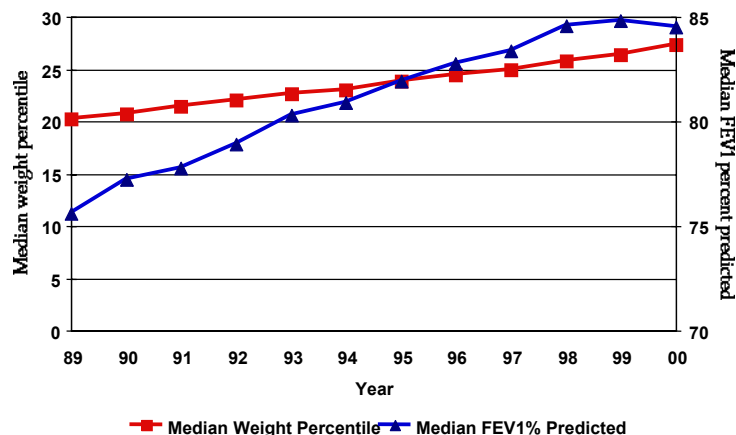
Median NCHS Weight vs. Age: 1989 and 2000



Weight Comparison by Age Group: 1989 and 2000  
%Patients at  $\leq 10$ th NCHS Weight Percentile

	Age (years)				
	0-1	6	10	15	20
1989	50.7	24.7	30.0	43.4	53.6
2000	33.4	17.1	22.0	34.2	37.0

Median NCHS Weight Percentile and FEV<sub>1</sub>



Height Comparison by Age Group:  
1989 & 2000

%Patients at  $\leq 10$ th NCHS Height Percentile

	Age (years)				
	0-1	6	10	15	20
1989	44.8	25.8	30.4	34.4	30.1
2000	38.9	27.8	30.5	29.7	25.7

Median NCHS Height Percentile

1989	14.9	24.6	24.4	22.1	23.9
2000	19.1	26.2	23.1	23.1	29.0

## Results

- In 1990, first CFF Nutrition Consensus guidelines released.
- High fat diet and increased use of enzymes became accepted practice.
- New pulmonary treatments became available 1989-2000.
- Median weight percentile and percent predicted FEV<sub>1</sub> steadily improved from 1989-2000.
- There were only slight improvements in height.

## Conclusions

- Despite improvements in weight and height, they remain less than ideal when compared to the normal population.
- Implementation of best practice nutritional care is imperative.