

HISTOPLASMOSIS

Histoplasmosis is caused by the fungus *Histoplasma capsulatum var. capsulatum* that grows as a mold in soil and as a yeast in human and animal hosts. Common reservoirs are soil around old chicken houses, in caves with bats, around starling and blackbird roosts, and in decaying trees. The organism growing in soil produces spore forms (conidia). Breathing the airborne conidia causes infection.

Histoplasmosis may be asymptomatic or take one of the four clinical forms:

- 1) **Acute benign respiratory** - mild respiratory illness with general malaise, fever, chills, headache, myalgia, chest pains, and nonproductive cough. Small, scattered calcifications in the lungs, hilar lymph nodes and spleen may be late findings.
- 2) **Acute disseminated** -debilitating fever, GI symptoms, bone marrow suppression, lymphadenopathy. Most frequent in children and immunosuppressed; fatal if not treated.
- 3) **Chronic pulmonary** - clinically and radiologically resembles chronic pulmonary tuberculosis with cavitations, usually in middle-aged and elderly persons with underlying emphysema.
- 4) **Chronic disseminated** - low-grade fever, weight loss, weakness, liver and spleen enlargement, mucosal ulcers, subacute course with slow progression; fatal if not treated.

Laboratory Criteria for Confirmation:

- Isolation of *H. capsulatum* from culture of bone marrow, sputum, or lesions, **OR**
- Histologic demonstration of intracellular yeast cells from bone marrow or tissue biopsy, **OR**
- Detection of *H. capsulatum* polysaccharide antigen in urine or serum, **OR**
- Rise in CF titers to either histoplasmin or yeast-phase antigen.
- Positive histoplasmin skin test **IS NOT** sufficient evidence.

The immunodiffusion (ID) test positive for H and/or M bands is also accepted as laboratory confirmation.

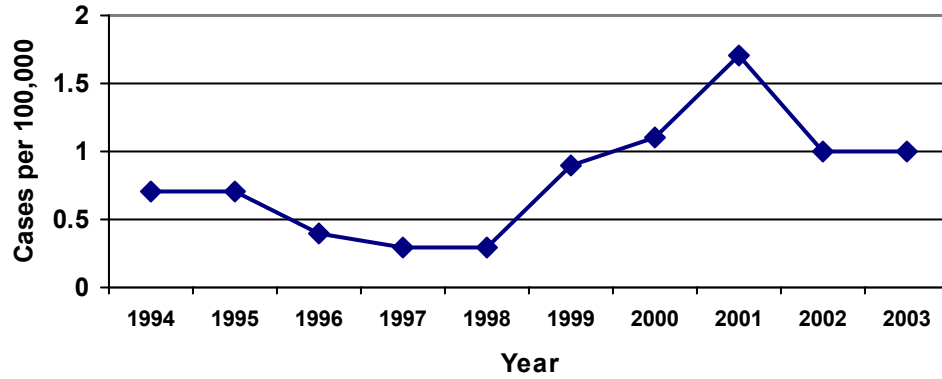
Case Classification

Confirmed: Laboratory confirmed infection and clinically compatible illness.

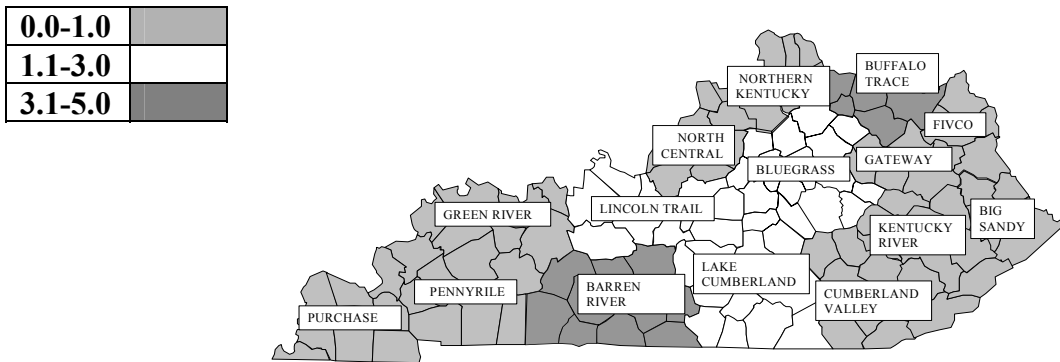
Epidemiology

Kentucky 2003	Rate per 100,000	Cases by Gender	Rate per 100,000
Cases 39	1.0	Female 16	0.8
		Male 24	1.2

Histoplasmosis Incidence, Kentucky 1994-2003



Histoplasmosis Incidence by District Kentucky 2003 - Per 100,000 Cases



The highest incidence rate of 5.0 cases per 100,000 occurred in the Barren River District. Statewide the 60-69 age group experienced the highest rate of incidence at 2.2 cases per 100,000, followed by the 50-59 age group with a rate of 2.0 cases per 100,000. All other age groups had rates of 1.3 cases per 100,000 or less.