

Update on Influenza

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Outline of Discussion

- ❑ Burden of influenza**
- ❑ Influenza vaccine recommendations**
- ❑ Influenza activity: current surveillance**
- ❑ Influenza vaccine supply and coverage**

Burden of Influenza

- ❑ Influenza causes yearly seasonal epidemics and can cause sporadic pandemics**
 - Four pandemics in 100 years
- ❑ 226,000 hospitalizations and 3,000-49,000 annual influenza-related deaths, especially among elderly**
- ❑ Severe illness can also affect people of all ages, particular those with chronic medical conditions**

Racial and ethnic disparities in influenza impact

- ❑ **Recent data from 2009 H1N1 demonstrates disparities in impact**
 - Rate of hospitalization with confirmed influenza among Hispanics was 8.2/ 100,000 vs. 3.0/100,000 among non-Hispanics white
 - Chicago: hospitalization rates among NH blacks and Hispanics four times higher (8-9/100,000) than NH whites (2/100,000)

- ❑ **Reason for these differences are complex:**
 - Disparity in access to healthcare
 - Higher prevalence of underlying chronic medical conditions
 - Lower levels of influenza vaccination coverage, especially among adults

Barriers to Influenza Vaccination

- ❑ Many underinsured adults, especially among certain race and ethnic groups**
- ❑ Competing social and economic demands among adults**
- ❑ Many may not have regular healthcare provider or only see specialist**
- ❑ Preventive care may not be priority, especially among specialists**
- ❑ Influenza vaccination is needed yearly**

Burden of Influenza and Medical Conditions

- ❑ **Vast majority of severe influenza illness occurs among adults with co-morbid conditions**

- ❑ **During 2010-11 influenza season, among adults hospitalized for influenza:**
 - 87% had at least one chronic medical condition¹
 - 43% had asthma or chronic lung disease
 - 36% had diabetes or other endocrine disorder
 - 37% had cardiovascular disease
 - **5% were pregnant women**

1. Emerging Infections Program, FluView 2010-11: <http://www.cdc.gov/flu/weekly/weeklyarchives2010-2011/10-11summary.htm>

Influenza Vaccination Recommendation

- ❑ **Persons with high risk conditions recommended for annual vaccination for decades**
 - E.g. diabetes, heart disease, chronic lung disease, asthma, renal disease, immune compromised
 - Increased risk of hospitalization and death

- ❑ **2010-11 season**
 - First year for universal influenza vaccine recommendation
 - All persons 6 months and older
 - Many groups may be unaware that they have a high-risk condition

Influenza Vaccine Recommendations

- ❑ **2009 H1N1 data suggested two additional risk groups**
 - Morbid obesity
 - Alaska Natives/American Indians
 - Both included as high risk conditions beginning in 2010-11
- ❑ **Vaccination of women pregnant during influenza season recommended at any time during pregnancy since 2004**
 - Multiple recent studies demonstrate
 - Increased risk of flu-related complications both to mother and baby
 - Benefit of vaccination during pregnancy to mother and during baby's first 6 months of life, regardless of which trimester pregnant mother is vaccinated

Influenza and Vaccination

❑ **Recommend early, prior to influenza circulation:**

- 2 weeks needed to mount immune response after vaccination
- Influenza vaccination should occur throughout the year even if patients missed pre-season vaccination

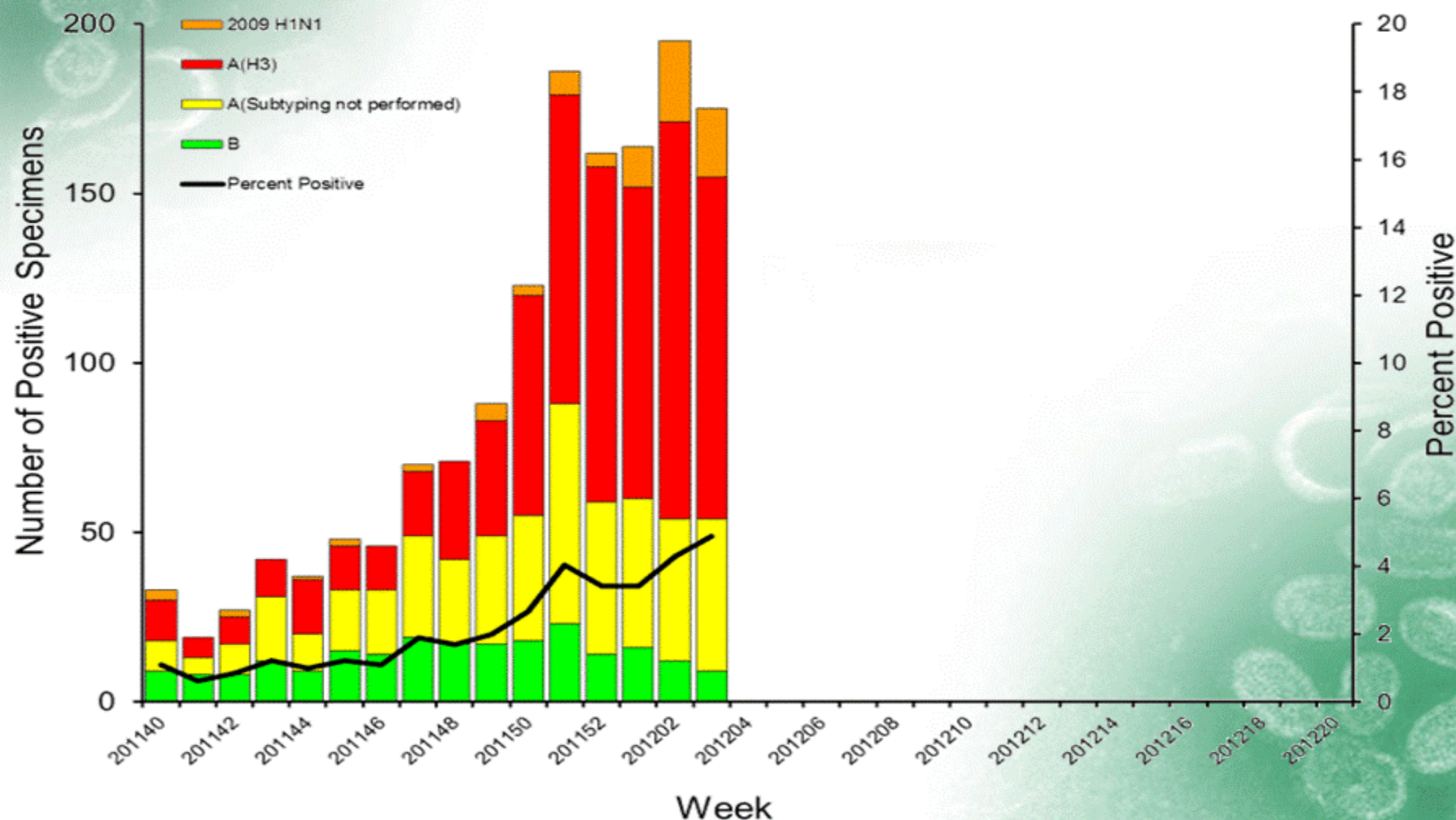
❑ **Four types of vaccines available:**

- Traditional influenza vaccine injected in muscle (all age groups)
- Nasal spray vaccine (LAIV): healthy individual, ages 2-49 years
- High-dose injectable vaccine for elderly (Fluzone)
- Intradermal vaccine: prick under the skin uses very small needle

INFLUENZA SURVEILLANCE

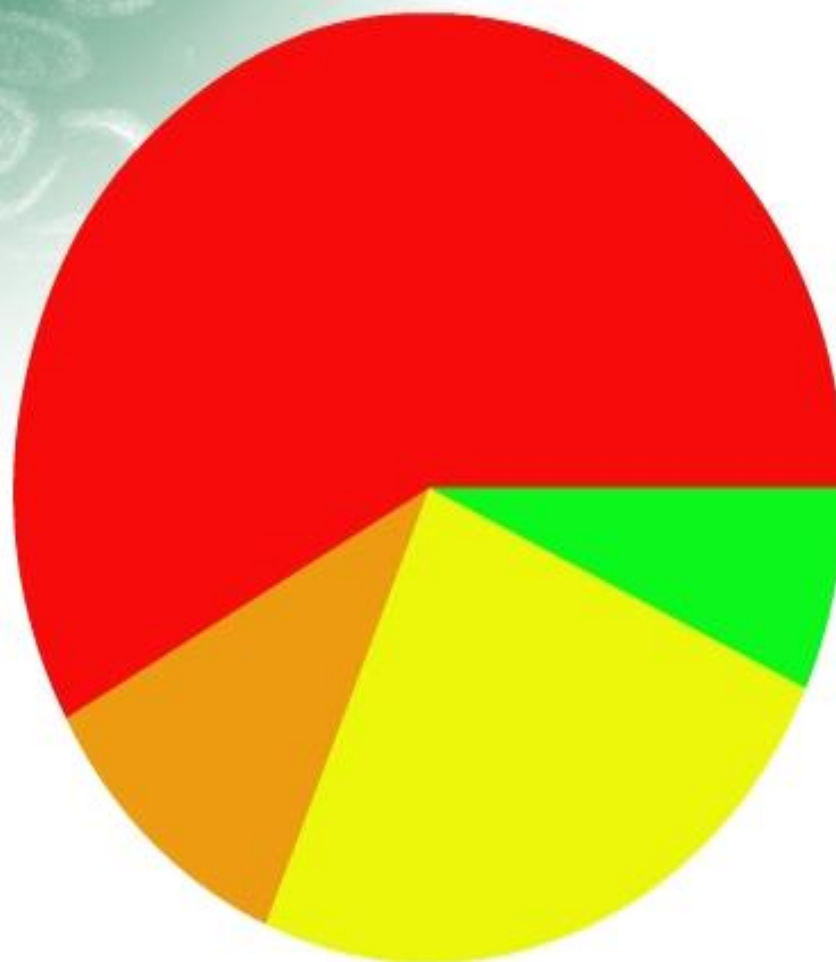
A Weekly Influenza Surveillance Report Prepared by the Influenza Division

Influenza Positive Tests Reported to CDC by U.S. WHO/NREVSS Collaborating Laboratories, National Summary, 2011-12



**Influenza Positive Tests Reported to CDC, National Summary, 2011-12 Season,
weeks ending Jan 01, 2012 - Jan 21, 2012**

Reported by: U.S. WHO/NREVSS Collaborating Laboratories



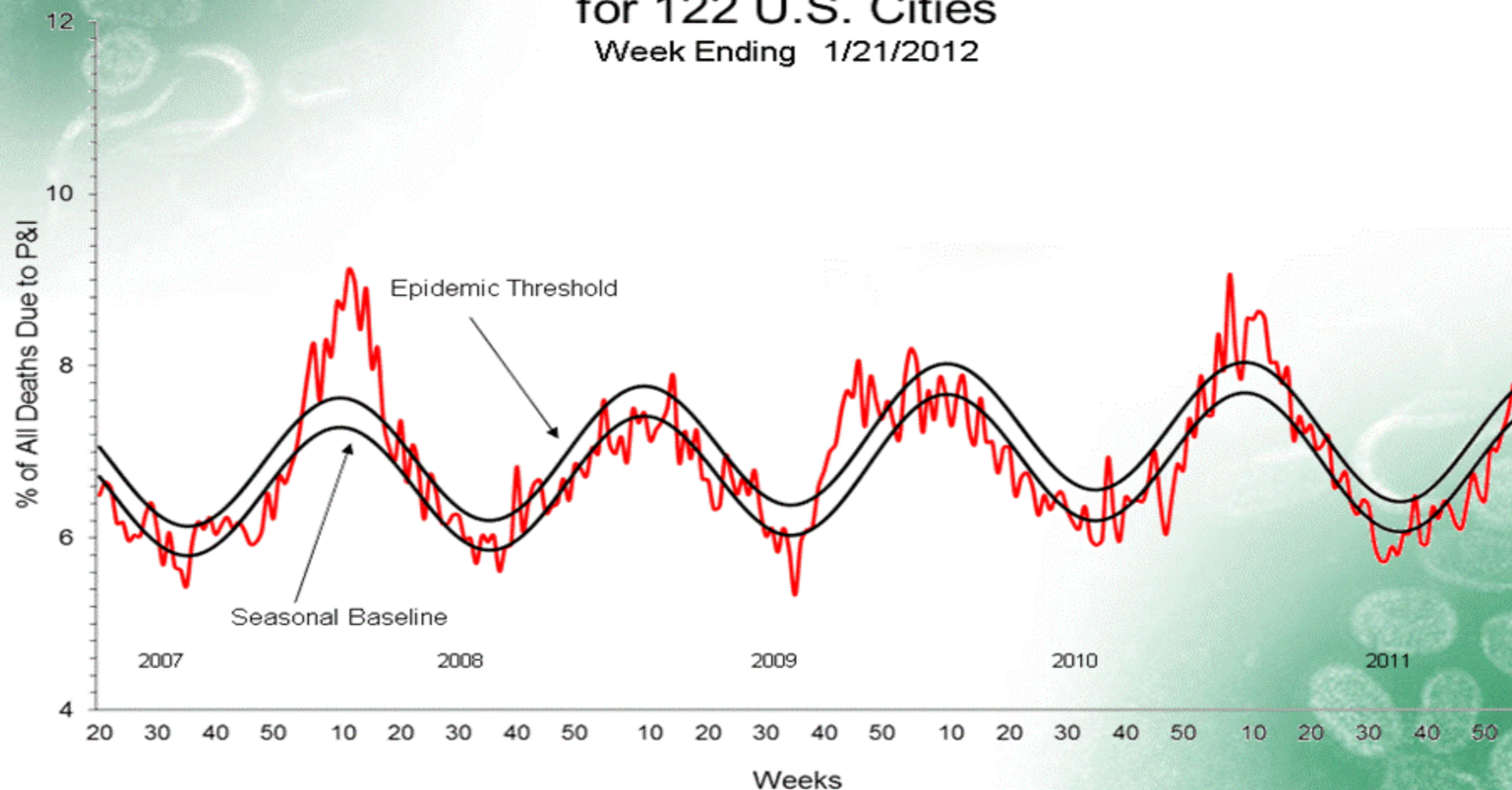
Number of Influenza Positive Tests

- A (H1) - 0
- A (Unable to Subtype) - 0
- A (H3) - 310
- A (2009 H1N1) - 56
- A (Subtyping not Performed) - 131
- B - 37
- No Data

A Weekly Influenza Surveillance Report Prepared by the Influenza Division

Pneumonia and Influenza Mortality for 122 U.S. Cities

Week Ending 1/21/2012



Week ending January 21, 2012 - Week 3



District of Columbia

Puerto Rico

U.S. Virgin Islands

* This map indicates geographic spread & does not measure the severity of influenza activity

Influenza Surveillance

- ❑ **Influenza activity remains low but expected to increase**
- ❑ **In 15 of the last 30 years, flu activity has begun to increase in January, peaked in February or March and continued into May**
- ❑ **Over 132 million dose of influenza vaccine have been distributed**

INFLUENZA VACCINATION COVERAGE

Seasonal Influenza Vaccination Coverage by Race/Ethnicity: 2008-09 -- 2010-11 Seasons

Group	2010-11 (%) ¹
Race/ethnicity (adults)	40.9
White, non-Hispanic	43.3
Black, non-Hispanic	34.9
Hispanic	32.4
Race/ethnicity (children)	49.0
White, non-Hispanic	46.3
Black, non-Hispanic	47.9
Hispanic	55.3

1. 2010-11, both years for 50 states plus DC for children, 43 states plus DC for adults. In press, MMWR, June 10, 2011

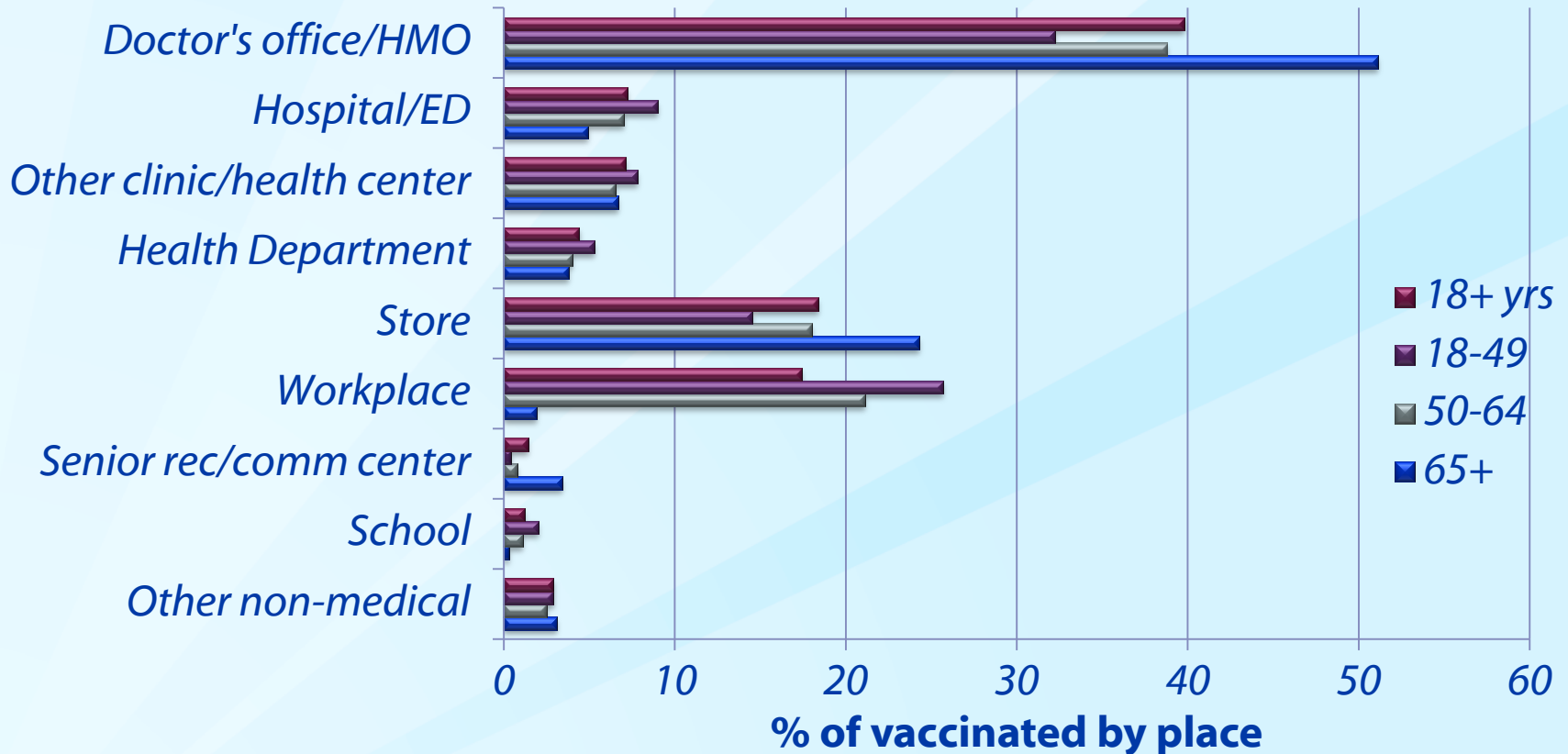
Seasonal Influenza Vaccination Coverage by Race/Ethnicity: 2011-12 Seasons

Group	Nov. 2011-12 (%) ¹
Race/ethnicity (adults)	36.2
White, non-Hispanic	39.9
Black, non-Hispanic	34.8
Hispanic	26.0
Race/ethnicity (children)	36.7
White, non-Hispanic	33.5
Black, non-Hispanic	35.5
Hispanic	43.4

1. National Flu Survey: <http://www.cdc.gov/flu/professionals/vaccination/national-flu-survey.htm>; confidence intervals not included.

Place of Influenza Vaccination Among Adults – United States, 2010-11 Season

MMWR June 17, 2011



Strategies for Increasing Influenza Vaccinations

- ❑ Strong recommendations from providers and community leaders**
- ❑ More convenient access to vaccination (schools, churches, community events)**
- ❑ Strategies and messaging tailored to specific target populations**

Conclusions

- ❑ **Influenza activity remains low, but expected to increase**
- ❑ **Racial and ethnic disparities persist**
 - Impact of influenza
 - Influenza vaccine use among adults
- ❑ **Many different strategies to increase vaccination coverage**
- ❑ **It is still not too late to get vaccinated and encourage vaccination in your community**

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Influenza Division Surveillance

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