

Emerging Infectious Diseases – 2022 Monkeypox Outbreak

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BACKGROUND

Monkeypox is an emerging infectious disease caused by the monkeypox virus, similar to smallpox but milder and rarely fatal. The first human case was noted in 1970, and prior to 2022, cases have been essentially isolated to central and western parts of Africa.

Recently, worldwide human-to-human transmission cases have emerged in **more than 100 countries** in a radical outbreak that has climbed to **over 59,000 reported cases**. In May of 2022, the United States saw its first case in a rapidly growing swell that now includes significant clusters in Clark County.

As of September 14, 2022, UMC Hospital and Clinics have tested more than 150 patients for monkeypox and have confirmed diagnosis of 30 cases.

IDENTIFY

Signs & Symptoms



Figure 1. Clinical photographs of monkeypox lesions. From "Monkeypox," by Medscape, 2022, *Drugs & Diseases*. <https://emedicine.medscape.com/article/1134714>

- **Prodrome** is often minimal or nonexistent, but may include: fever, chills, malaise, myalgia, cough, sore throat, headache, lymphadenopathy, and exhaustion
- **Rash:** 1-3 days after prodrome, lesions begin to appear, often present in various stages, even in the same area
 - Macules
 - Papules
 - Vesicles
 - Pustules
- ✓ Firm, rubbery lesions often develop **umbilication** (resembles pitting or a dot on the top of the lesion)
- ✓ Rash or lesions frequently begin in the **anogenital and oral** areas, may involve palms and soles of feet, may be confined to only a few lesions sparsely disseminated to other areas of the body
- ✓ Pain is often reported as more severe than clinical findings would suggest

22,774 Total confirmed U.S. monkeypox cases

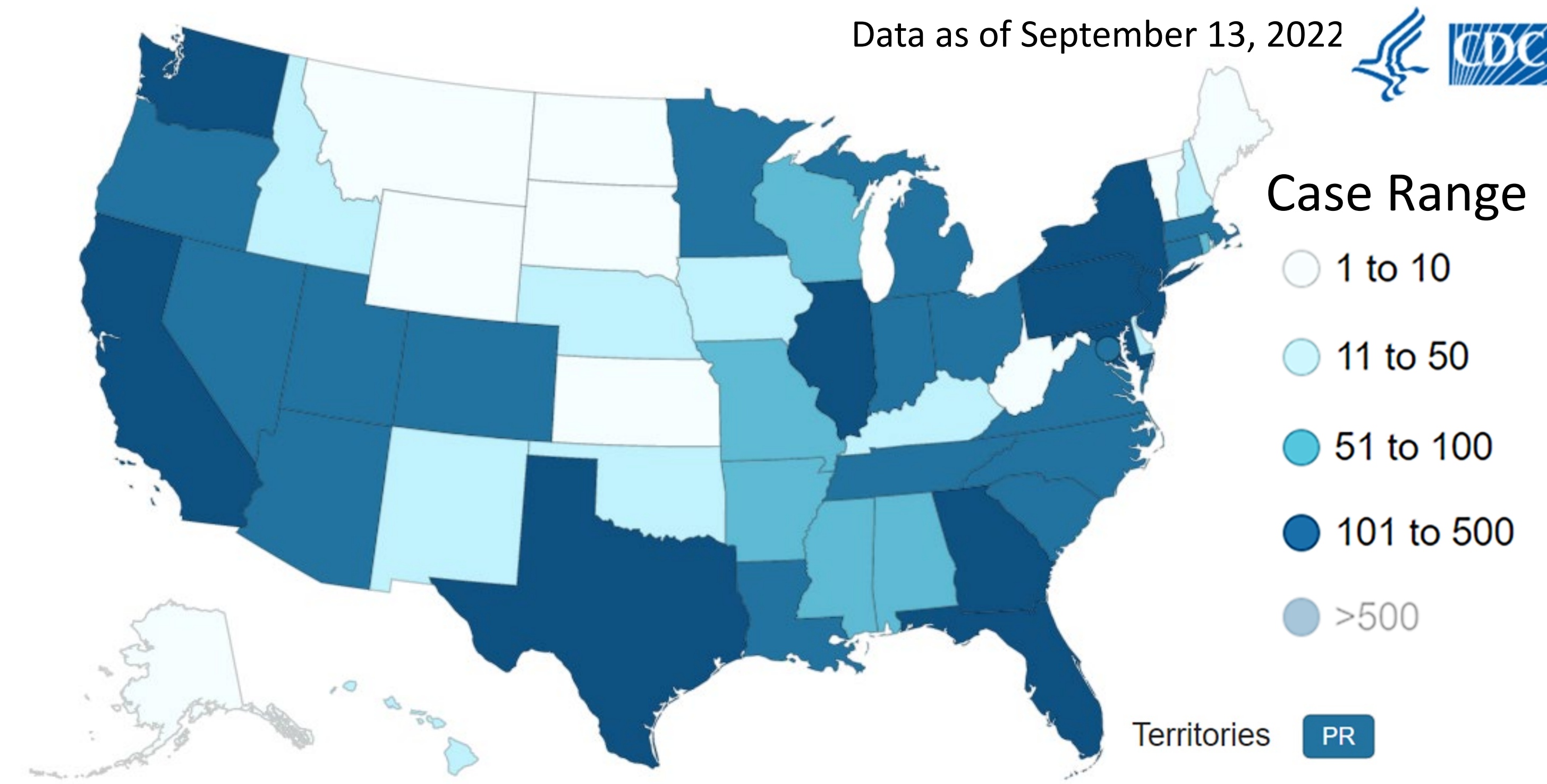


Figure 2. Total confirmed U.S. monkeypox cases. Adapted from "Monkeypox," by Centers for Disease Control and Epidemiology (CDC), 2022, *2022 Outbreak Cases & Data*. Retrieved September 9, 2022, from <https://www.cdc.gov/poxvirus/monkeypox/response/2022/us-map.html>

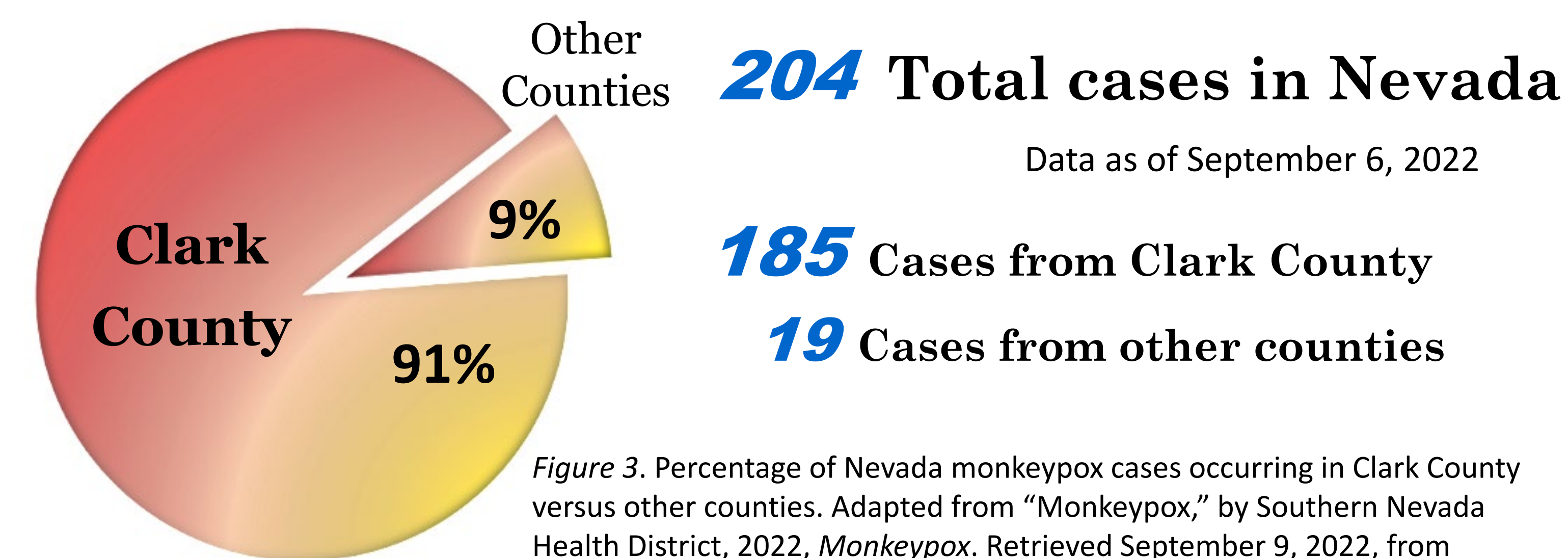


Figure 3. Percentage of Nevada monkeypox cases occurring in Clark County versus other counties. Adapted from "Monkeypox," by Southern Nevada Health District, 2022, *Monkeypox*. Retrieved September 9, 2022, from <https://www.southernnevadahealthdistrict.org/Health-Topics/monkeypox/>

ISOLATE

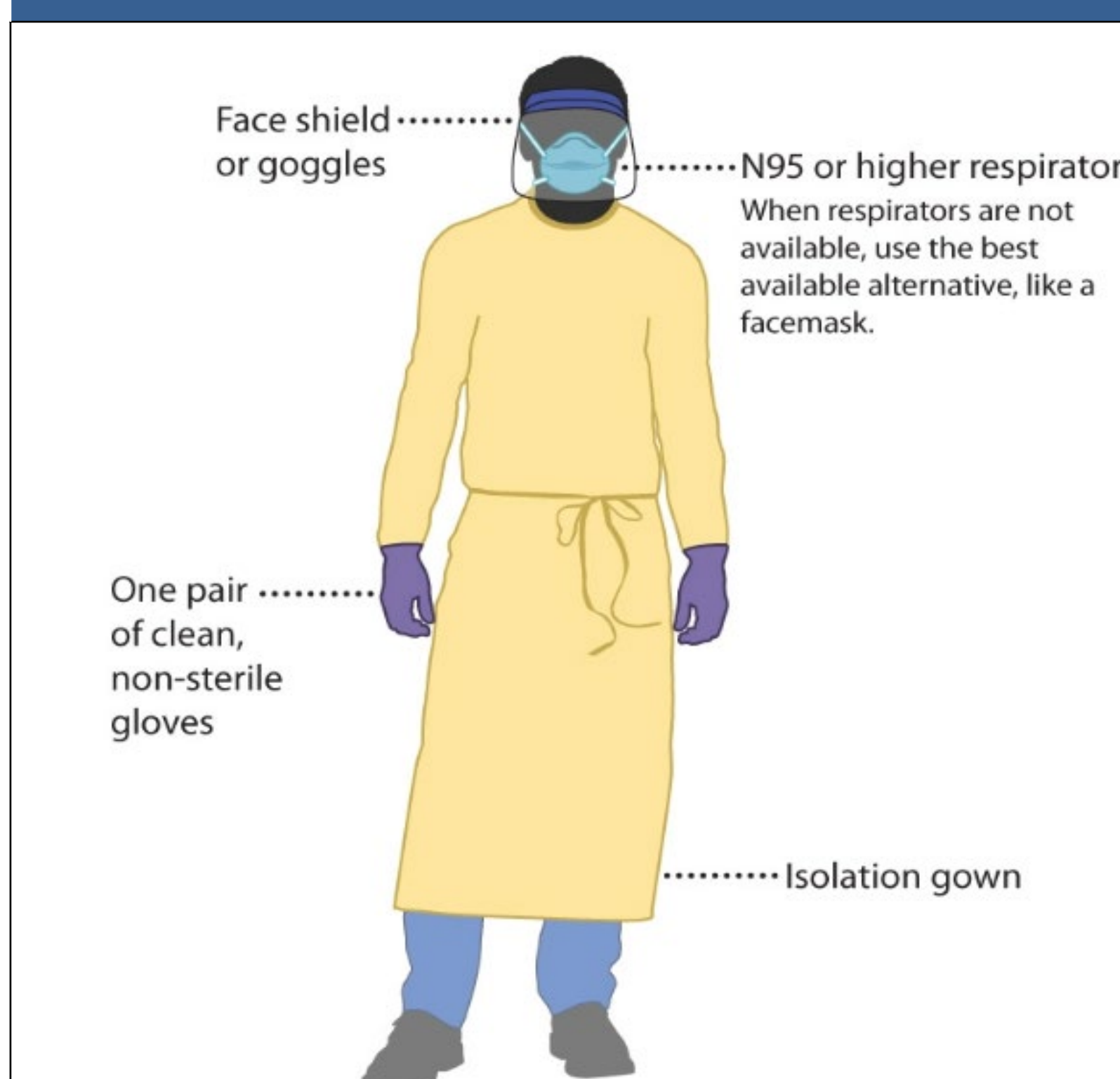


Figure 4. Personal protective equipment (PPE) for monkeypox. From "COVID-19 Resources," by CDC, 2020, *COVID-19 (Coronavirus Disease)*. <https://www.cdc.gov/coronavirus/2019-nCoV/index.html>

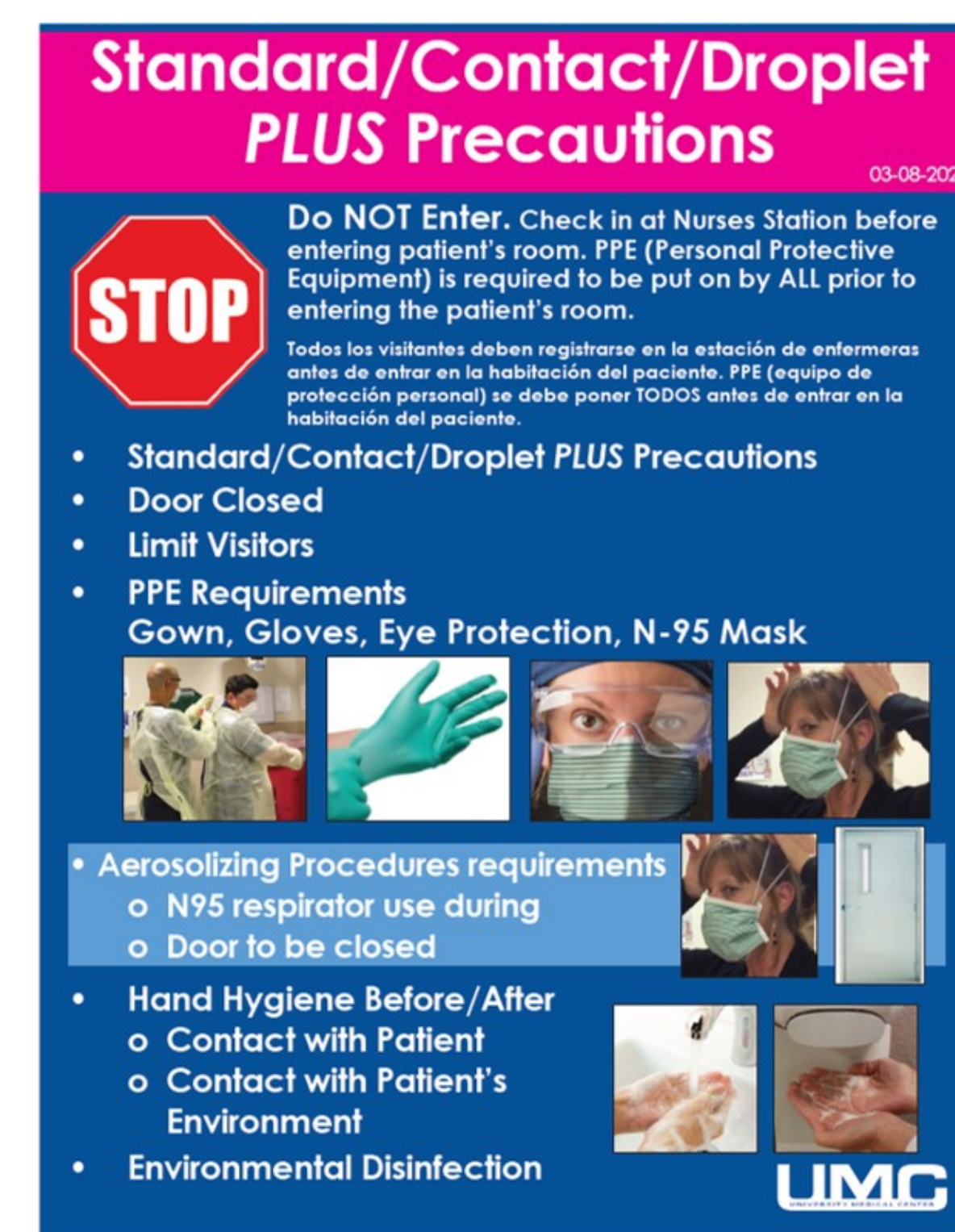


Figure 5. Transmission-based precautions signs for monkeypox. From University Medical Center of Southern Nevada, 2022.

INVESTIGATE

Social Determinants of Health

- In the current monkeypox outbreak, transmission most often occurs through close, sustained physical contact, **almost exclusively associated with sexual contact**.
- The vast majority of current cases have occurred in gay, bisexual, and other men who have sex with men (MSM).
- However, **monkeypox can be acquired by all people**, regardless of gender identity, sexual orientation, race, or ethnicity.
- Sex with multiple or anonymous partners is a major risk factor for increased transmission.
- Assessment of sexual orientation and sexual history can be vital in some cases and should be approached with respect and care.

Monkeypox is a legitimate public health issue relevant to all people. Stigma reduction communication strategies should be employed.

CONCLUSIONS

Patient assessment should include:

- Signs & symptoms
- Skin assessment (including anogenital and oral lesions)
- Social determinants of health (including sexual practices)
- Comorbid conditions such as HIV status

Notify Infection Prevention department for public health reporting

Follow-up care could include:

- Monkeypox PCR testing
- Further diagnostic workup
- Vaccination (JYNNEOS)
- Tecovirimat (TPOXX) treatment
 - oral or IV

Most patients are able to be managed in the **outpatient setting** with instructions to isolate at home or another location. Follow-up is essential and can include Southern Nevada Health District (SNHD).

REFERENCES

References available upon request

