

Special Treatment Populations

2009 AOAAM

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Outline for This Talk

Adolescents

Pregnant patients

Geriatric patients

HIV positive patients

Summary

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Prevalence of any illicit drug use in youth

In 2002, for 12-17 year olds:

Ever used any illicit drugs: 30.9%

Used illicit drugs in past year: 11.6%

In 2002, for 18-25 year olds:

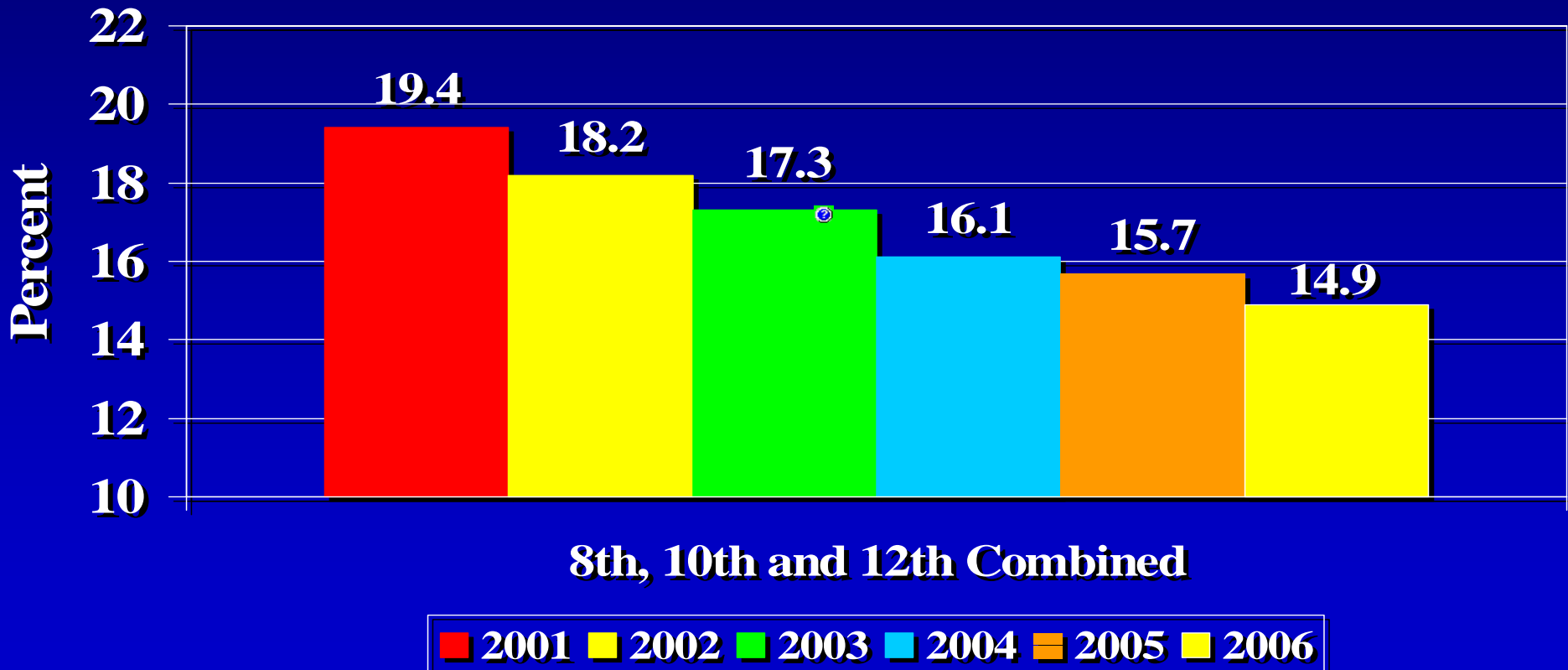
Ever used illicit drugs: 59.8%

Used illicit drugs in past year: 20.2%

2002 National Survey on Drug Use and Health (NSDUH)

Percent of Students Reporting Past Month Use of Any Illicit Drug Has Decreased

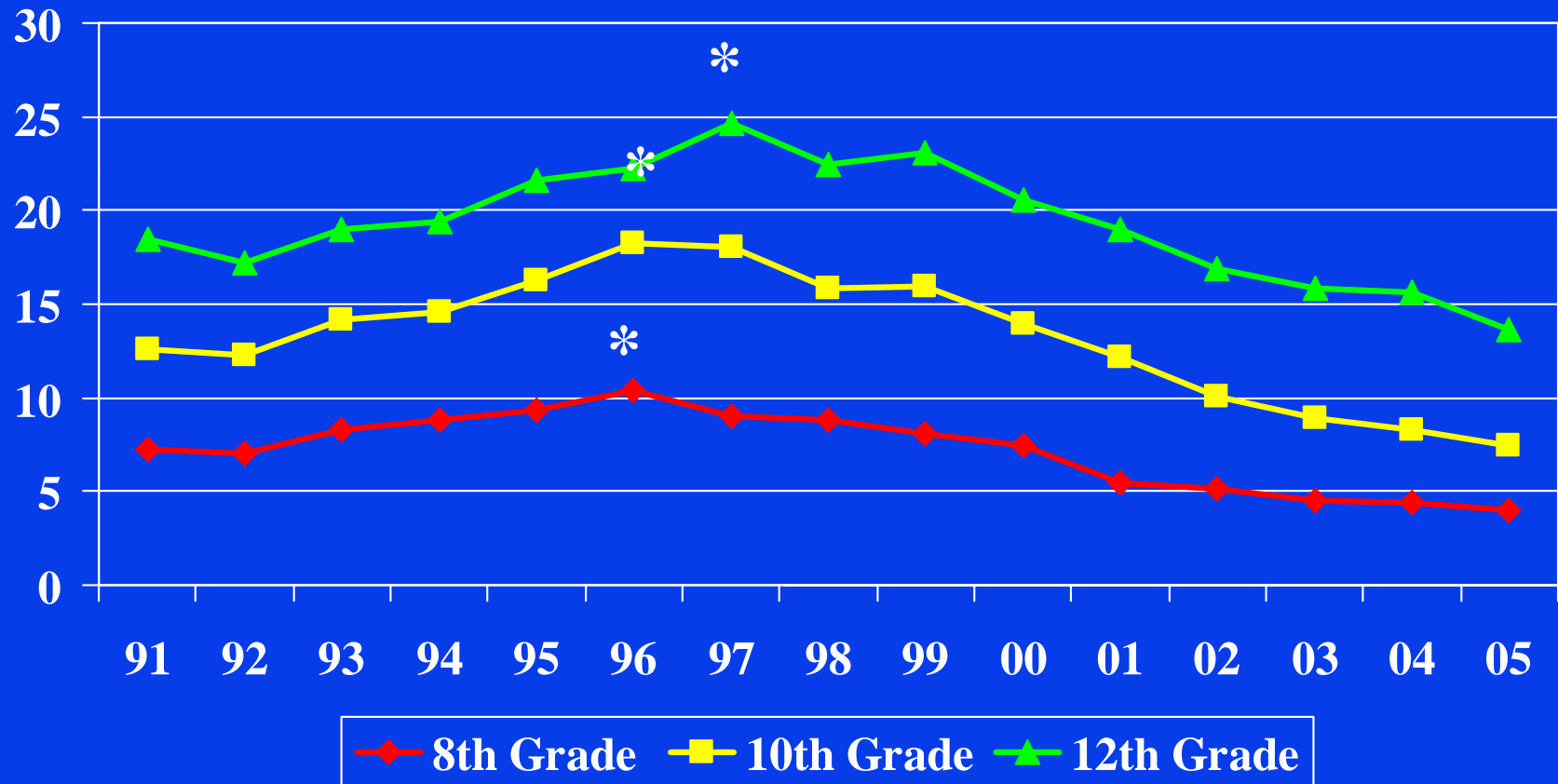
23% Decline 2001 to 2006 *



* $P < .001$

Source: Monitoring the Future Study, 2006

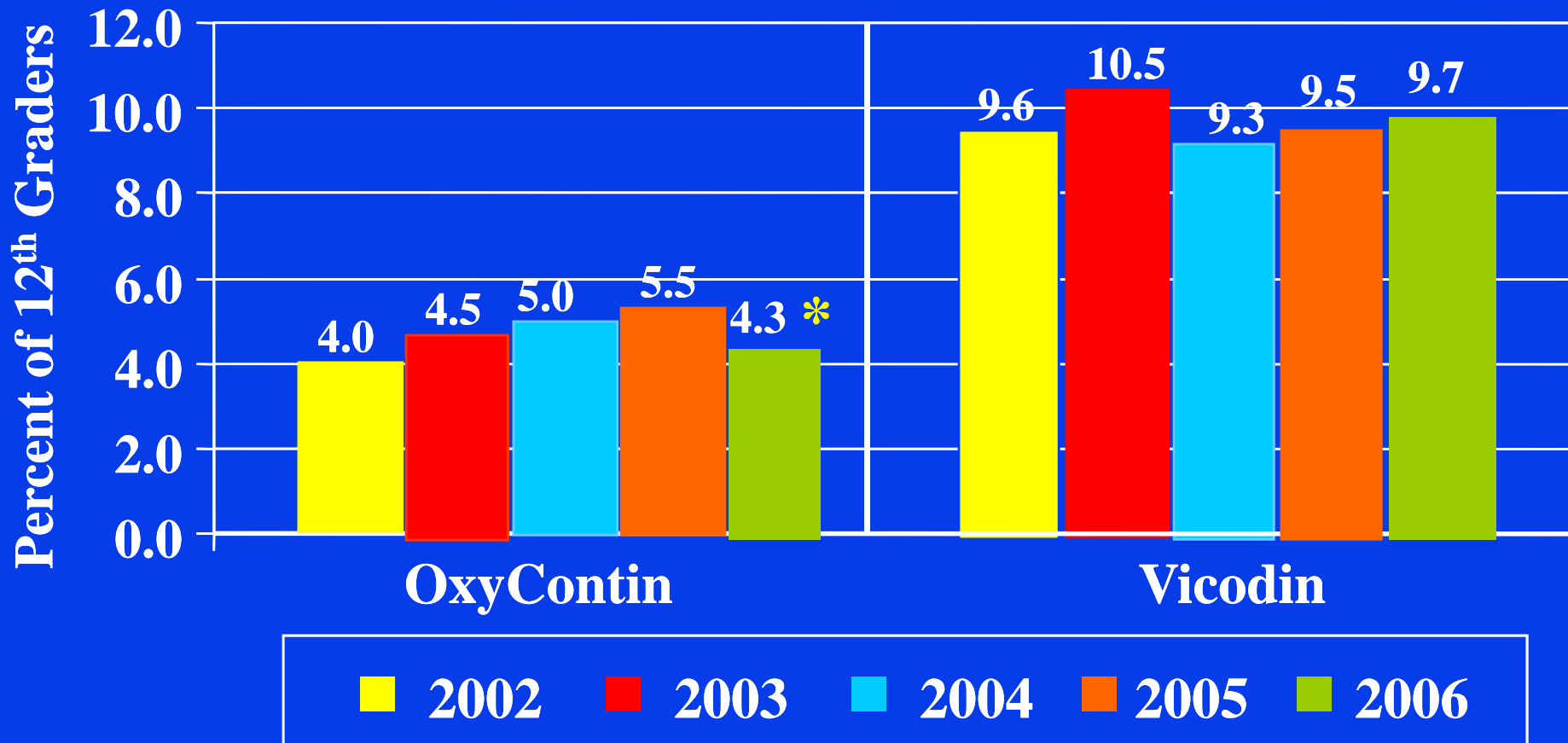
Percent of Students Reporting Smoking Daily, by Grade from Monitoring the Future 2005



* Significant difference
between recent peak year
and current year.

Issues of Concern:

Past Year Nonmedical Use of OxyContin and Vicodin Remains High



* Significant decline between 2005 and 2006

Source: Monitoring the Future Study, 2006

2006 Monitoring the Future Study

Prevalence of Past Year Drug Use Among 12th graders

Drug	Prev.	Drug	Prev.
Marijuana/Hashish	31.5	MDMA (Ecstasy)	4.1
Vicodin*	9.7	Methamphetamine	2.5
Amphetamines	8.1	Crack	2.1
Cough Medicine*	6.9	"Ice"	1.9
Sedatives*	6.6	Steroid*	1.8
Tranquilizers*	6.6	LSD	1.7
Cocaine (any form)	5.7	Ketamine	1.4
Cocaine Powder	5.2	Rohypnol	1.1
Inhalants	4.5	GHB	1.1
Ritalin*	4.4	Heroin	0.8
OxyContin*	4.3	PCP	0.7

* Nonmedical use

Prevalence of heroin use

Opioid use other than heroin:

Highest use since 1975 was 2003

12th graders in 2005:

12.8% report lifetime use

9.0% report last year use

3.9% report past month use

Special diagnostic and treatment considerations

Length of time illicit opioids used

Relatively short but multiple drugs?

Youth also are not experienced users.

Route of administration

Injecting? Nasal? Oral?

At risk for HIV or other infections?

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Special diagnostic and treatment considerations

Use versus abuse versus dependence

Severity of use?

Evidence of physical dependence?

Evidence or indication that use will become dependence despite other interventions?

Goals of treatment intervention

Withdrawal off opioids?

Maintenance?

Use of Buprenorphine with Adolescents

While extensive use of buprenorphine in adults, limited use in adolescents. 2005 NEJM article reveals superiority of buprenorphine over clonidine

Guidelines for dose induction and withdrawal recommended for adults should, in general, be used with adolescents. FDA approved for 16 and above

Assess level of physical dependence, adjust dose accordingly for adolescents, just as for adults

Use of Buprenorphine with Adolescents

Buprenorphine may be a good match for patients with lower levels of physical dependence (such as adolescents)

A history of multiple relapses (e.g., after medically supervised opioid withdrawals) is an indicator for a trial of buprenorphine maintenance treatment

Buprenorphine's possible mild withdrawal syndrome may also make it particularly useful in adolescents

Use of Buprenorphine with Adolescents

Buprenorphine may have a mild withdrawal syndrome (this has been frequently hypothesized, but not tested by well-controlled studies)

If buprenorphine does have a mild withdrawal syndrome, this may be an advantage for its use with adolescents (especially if the goal is eventual withdrawal off the medication)

Use of Buprenorphine with Adolescents

Supervision of take home doses of medication

Watch for risk of diversion, abuse

Regular contraceptive use and assessment for pregnancy

Provide or refer for other psychosocial treatment; medication will not be enough

The Opioid Dependent Pregnant Patient

1997: 5,000-10,000 infants born to opioid dependent mothers

Important to know about specialized treatment services in your community available for pregnant, opioid dependent patients

Management of the patient will depend on the availability of such services

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It is important to know about specialized treatment services available for pregnant, opioid dependent patients in your community. Management of the patient will depend on the availability of such services.

Initial Management of the Pregnant Patient

If specialized treatment program is available:

New patient – refer to the program

**Buprenorphine/naloxone-maintained patient
who is now pregnant:**

**switch to buprenorphine alone vs. change to
methadone**

consider referral to the program

Initial Management of the Pregnant Patient

If no specialized treatment program is available

and it is a new patient – consider referral to methadone treatment (even if there is no program specifically for pregnant women)

and it is a buprenorphine/naloxone maintained patient who is now pregnant – switch to buprenorphine monotherapy and consider referral to methadone treatment (standard of care for pregnant opioid dependent patients)

Initial Management of the Pregnant Patient

If no specialized treatment program is available:

Have, and document, a careful discussion with the patient about the risks and benefits of continued buprenorphine monotherapy treatment

Refer the patient to appropriate prenatal care services

Multi-center trials were initiated in 2004 (7 US and 2 French) with results in 2009

Evaluation of the Pregnant Patient

Factors to consider in the evaluation:

Is the patient dependent on opioids?

Is there other drug use?

Medical problems?

Psychiatric problems?

Family and social situation?

Evaluation of the Pregnant Patient

Determine if patient has regular prenatal care provider, and if prenatal care has been initiated

Obtain consent to communicate with prenatal care provider

Provide nutritional counseling specific to pregnancy, if indicated (e.g., use of prenatal vitamins and iron)

Buprenorphine versus Methadone

**Methadone approved for use in pregnancy,
and substantial experience with it**

**Not a similar amount of experience with
buprenorphine use in pregnancy**

Buprenorphine versus Methadone

Minimal information about need for dose adjustments of buprenorphine during pregnancy

Pregnant women treated with buprenorphine have had good withdrawal suppression with once daily dosing

Maintain clinical flexibility during pregnancy – consider dose adjustments, split dosing, if indicated

Use of Buprenorphine versus Methadone

Buprenorphine may have milder withdrawal syndrome for infant

Plasma to breast milk ratio is approximately 1 (limited data on this)

Poor oral bioavailability when buprenorphine swallowed

Probably should not use buprenorphine/naloxone

Use of Buprenorphine versus Methadone

Like methadone, some evidence of a neonatal abstinence syndrome (NAS) for infants born of mothers maintained on buprenorphine (not all infants, and not systematically studied)

Buprenorphine NAS starts in first two days, peaks in 3-4 days, lasts up to one week

Buprenorphine via breast milk will probably not suppress neonatal abstinence syndrome

In Utero Exposure to Buprenorphine

**Limited experience with buprenorphine in pregnancy
(primarily case reports and small series of patients)**

Over 100 published reports (case reports, prospective studies, open-labeled controlled studies) of 15 cohorts of infants exposed to buprenorphine in utero

No significant adverse effects on fetus noted

In general, full term births, normal birth weights

Neonate is dependent on opioids if mother is maintained on buprenorphine

In Utero Exposure to Buprenorphine

Of approximately 300 infants exposed, 62% experienced a neonatal abstinence syndrome (NAS), with 48% requiring treatment

However, neonatal abstinence syndrome (NAS) minimal and short lived in buprenorphine-exposed infants

In Utero Exposure to Buprenorphine

The NAS associated with buprenorphine:

Appears within 12-48 hours

Peaks at 72-96 hours

Lasts for 120-168 hours

In Utero Exposure to Buprenorphine

NAS in buprenorphine-exposed infants described as mild to moderate, possibly shorter and milder than that observed with methadone or other opioids

Buprenorphine provides same benefits to mother as other opioid agonist treatments, while it may attenuate NAS

No significant teratogenic effects shown with buprenorphine

Buprenorphine Dosing during Postpartum Period

Continue mother on buprenorphine, even if she is breast-feeding

Low levels of buprenorphine in breast milk and poor oral bioavailability when swallowed

Consider dose adjustments if indicated. For example, if the mother has received split dosing during pregnancy, then resumption of once daily dosing could occur

Geriatric (Over age 60) Population: Prevalence of Opioid Misuse

There is no good epidemiological information available about rates of opioid misuse in the elderly

National Household Survey/National Survey of Drug Use and Health generally does not specify data for older persons

Drug Abuse Warning Network classifies as 55+ years old

There are anecdotal reports of older patients in methadone treatment

Dependence on psychoactive substances can certainly be present in this age group

Special Diagnostic Considerations

Our index of suspicion may be too low; we don't usually think of drug use in the elderly

Effects of drug use may be mistakenly attributed to aging

The usual diagnostic criteria may be less appropriate for the elderly (for example, those related to violations of social norms)

Use of buprenorphine with geriatric patients

No data on buprenorphine for opioid dependence in the elderly

Consider more gradual dose induction and closer monitoring (versus routine practice in non-elderly)

Watch for medication interactions (elderly may have comorbid medical conditions and be taking other prescribed medications)

HIV-Positive Patients

No adverse consequences associated with use of buprenorphine reported for this population to date

Be aware of potential for buprenorphine and antiretroviral medication interactions

There is evidence that protease inhibitors metabolized by P450 3A4 may alter buprenorphine metabolism and thus buprenorphine levels; not clear whether altered buprenorphine levels will result in withdrawal or toxicity

Consider referral to specialized treatment programs for HIV-positive patients (if available)

Outcomes may be better when enhanced services provided

Patients with Renal Failure

Few studies of buprenorphine in patients with renal failure; ones available are primarily single dose or short duration of treatment (for example, for analgesia)

No significant difference in kinetics of buprenorphine in patients with renal failure versus healthy controls

No significant side effects in patients with renal failure

It should be suitable to use buprenorphine in patients with renal failure – consistent with buprenorphine's metabolism being hepatic (not renal)

Summary

Limited information about the use of buprenorphine for the treatment of opioid dependence in special populations of patients

This reflects, in part, the lack of studies with these groups (for any treatment intervention, not just buprenorphine)

While caution should be exercised in the use of buprenorphine with any of these groups, buprenorphine's safety profile is an advantage to its use in these populations